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ABOUT RIGHT TO PLAY

Right To Play is a global organization, using the transformative power of play to educate and empower children facing adversity. Through playing sports and games, Right To Play helps over one million children learn through play to create better futures, while operating in more than 20 countries each week. Founded in 2000 by social entrepreneur and four-time Olympic gold medalist Johann Olav Koss, Right To Play is headquartered in Toronto, Canada and has national fundraising offices in Canada, Germany, the Netherlands, Norway, Switzerland, the United Kingdom, and the United States. Regional offices are in Africa, Asia, and the Middle East. Our programs are facilitated by more than 600 international staff and 14,400 local volunteer Coaches.

About the Right To Play Resources

Right To Play has over 1,000 sport and play-based games and activities designed by child development experts in consultation with local stakeholders from the communities we serve. These games and activities are collected in resource manuals. All Right To Play resources and play- and sports-based learning activities use the 3-step teaching and learning methodology called RCA (Reflect-Connect-Apply). RCA helps students process their experiences through reflection and dialogue with their peers and others. Reflect-Connect-Apply allows students individually and in groups, to examine their experiences consciously, relate those experiences to what they already know and formulate plans to use their learning.
ACKNOWLEDGEMENTS

Right To Play wishes to acknowledge and thank all those whose ideas and outputs contributed to the development of this manual.

- The Department of Education of New York City whose commitment and desire to improve play-based learning programs in prekindergarten facilitated this partnership. Specifically, Right To Play thanks Sophia Pappas, Executive Director of the Office for Early Childhood Education and her team.
- Theresa Steger and Sally Kotsopoulos, Specialists in Early Childhood Education who designed the original training and wrote the Educator and Training Manuals
- Elspeth Hannan, Project Consultant who provided management support for the writers, edited the resource and transformed it into a clear, concise, user-friendly document
- Joan Littleford and Janet Millar Grant with the Elementary Teachers Federation of Ontario, for their keen eye and insight that helped to refine the manual and training after the first pilot year of the program
- Bruce McVicar, Visual Design Consultant who prepared the manual for publication
- Caroline Bennett, Project Manager from Right To Play's US National Office who led the pilot project with competence and zest
- Internal contributors, reviewers and project support staff at Right To Play Headquarters: Tabish Surani, Tara Vanderwel, and Emily Jacobson.
HOW TO USE THIS MANUAL

This manual has been developed as a resource for prekindergarten educators and paraprofessionals working within the New York City Department of Education.

The manual is a practical resource to support you in planning, preparing, implementing and assessing play-based learning in your classroom. It contains a collection of learning experiences and games to use in a play-based early learning program.

The learning experiences and games included in this manual have been chosen to address children’s development in three areas: critical thinking, problem-solving and language & literacy.

These three areas can each be broken down into a grouping of skills or steps.

Critical Thinking Skills

1. Remembering
2. Understanding
3. Applying
4. Analyzing
5. Evaluating
6. Creating

Note: These critical thinking skills are from an updated Bloom’s Taxonomy of higher-order thinking. The image above demonstrates these skills in a hierarchical figure.
Problem-solving Steps

1. Understand the Problem
2. Make a Plan
3. Carry out the Plan
4. Look back at the Solution

Language and Literacy Skill Areas

1. Vocabulary
2. Print Concepts
3. Phonological Awareness
4. Phonics and Word Recognition
5. Fluency

Each skill set will be explored more deeply in your training.

Each collection of learning experiences and games addresses the what, why and how of fostering growth in a particular target skill. Each section contains similar features, including:

- A validating chart that links the learning experiences and games to the relevant standards in the New York State Prekindergarten Foundation for the Common Core (PKFCC)
- An overview of practices demonstrated by effective educators to foster the development of the particular critical thinking skill, problem-solving step or language and literacy skill
- Strategies for observing and assessing the children’s learning
- Strategies to promote inclusion of children who might be excluded because of differences in language, behavior, communication, sensitivity and/or physical abilities
- Strategies to help families to support their children in developing the target skills and steps
- An array of play-based learning experiences and games that will help children to develop the target skill. They include experiences that are:
  - Teacher-initiated
  - Teacher-guided
  - Child-initiated
What is the Play at the Core Program?

Play at the Core is a program born from a partnership between Right To Play and the New York City Department of Education. The program is designed to address the student achievement gap by supporting educators and educational paraprofessionals to raise the academic performance of prekindergarten students through play-based early learning programs. The Play at the Core Program will support teachers to develop and implement learning experiences that will provide children with a strong foundation of critical thinking, problem-solving and language and literacy skills.

What do Right To Play and New York City Department of Education do?

Right To Play is a global organization that uses the transformative power of play to educate and empower children facing adversity. It was founded in 2000 by Johann Olav Koss, a four-time Olympic gold medalist and social entrepreneur. Through sports and games, Right To Play helps children build essential life skills and better futures while driving social change in their communities with lasting impact.

The New York City (NYC) Department of Education is the largest system of public schools in the United States, serving about 1.1 million students in over 1,700 schools. Within the NYC Department of Education, the Office of Early Childhood Education works to provide families with access to high quality early childhood options that prepare their children for success in school and life.

In 2011 New York State adopted and approved carefully developed early learning expectations known as the New York State Prekindergarten Foundation for the Common Core (PKFCC). These standards focus on the learning and development of the whole child. The primary purpose of the prekindergarten standards is to ensure that all children, including children with disabilities, students with Limited English Proficiency (LEP), and English Language
Learners (ELLs) have rich and varied early learning experiences that prepare them for success in school and lay the foundation for college and career readiness.

In order to galvanize play as a teaching platform, Right To Play and the NYC Department of Education teamed up to develop and implement a play-based early learning program in New York City prekindergarten classrooms. This is known as Play at the Core: The Right To Play New York City Play-Based Early Learning Program. The program was designed to support educators and educational assistants to deliver on the PKFCC within a play-based framework.

**What are the goals of the Play at the Core Program?**

The Play at the Core Program has the following goals:

- Improve children’s engagement and motivation to learn
- Integrate stronger critical thinking and problem-solving skills into the play-based learning activities in classroom programs
- Integrate language and literacy activities into play-based learning activities in classroom programs to enhance the language and literacy levels of students
- Increase knowledge and skills of educators and educational paraprofessionals to implement play-based learning activities

**Why is Play a Key Tool in Achieving These Goals?**

When play is purposeful, learning occurs. Children are exploring, inquiring, testing, and practicing with content they are uncovering and learning about and which helps them to understand the world. Participation in play makes learning relevant and therefore meaningful, within a context that makes sense to children. Play also makes the learning process more enjoyable and can bond children to school more effectively. *(Source: Shipley, 2013)*

Children from birth to eight-years-old learn effectively through play and are more likely to develop critical thinking skills, problem-solving skills, language and literacy skills and consequently a deeper and more meaningful understanding of the world.

When children are actively engaged in play, they are learning, exploring and growing in every respect:

- **Intellectually** they are sharply focused: observing, remembering, experimenting, strategizing, evaluating and decision-making.
- **Physically** they are fully involved.
- **Emotionally** they are intensely absorbed: discovering new dimensions in themselves, growing in confidence, experiencing excitement and happiness.
- **Socially** they are deeply engaged with others. They are developing the knowledge, skills and attitudes to communicate, cooperate and form positive relationships.
Critical Thinking Skill #1:
Remembering.................................................................10

Critical Thinking Skill #2:
Understanding ..................................................................37

Critical Thinking Skill #3:
Applying ...........................................................................54

Critical Thinking Skill #4:
Analyzing ...........................................................................84

Critical Thinking Skill #5:
Evaluating ..........................................................................102

Critical Thinking Skill #6:
Creating .............................................................................129
Critical Thinking Skill #1: Remembering  
(Collect and recall information from memory)

To think about something in an effective way, we first must build and then recall knowledge. Offering children opportunities to learn more about something they are interested in supports an inquisitive mind. It also provides learning experiences that build self-confidence in children as they become competent learners. Young children acquire knowledge in many ways but by seeing things from different perspectives, they will be thinking critically. Children should be encouraged to seek out more information and to consider where one might go to find out more information. Young children can be encouraged to do “research” to learn more. They can look in information books, examine something using different tools, or ask someone who they think will know more information.

Brainstorming encourages students to entertain how others perceive a topic and to realize that others have ideas and opinions. Giving children opportunities to practice effective brainstorming that is open and non-judgmental is an effective learning experience. Children can participate easily and with little risk in this skill.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #1: Remembering in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children
1. **Links to the Prekindergarten Foundation for the Common Core**

The learning experiences and games for this skill are linked to relevant standards in the *Prekindergarten Foundation for the Common Core (PKFCC)*. The chart below lists the specific clusters, standards/indicators and their location in the PKFCC for **Critical Thinking Skill #1: Remembering**

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<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
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<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1. Actively and confidently engages in play as a means of exploration and learning 2. Actively engages in problem solving.</td>
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<tr>
<td>Approaches to Learning</td>
<td>Creativity and Imagination</td>
<td>3b. Identifies additional materials to complete a task. 3c. Experiments to further his/her knowledge. 3d. Seeks additional clarity to further his/her knowledge.</td>
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<tr>
<td>Approaches to Learning</td>
<td>Curiosity and Initiative</td>
<td>4. Exhibits curiosity, interest, and willingness in learning new things and having new experiences.</td>
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<td>Physical Development and Health</td>
<td>Physical Development</td>
<td>1b. Compares and contrasts different sights, smells, sounds, tastes, and textures. 1c. Uses descriptive words to discuss sights, smells, sounds, tastes, and textures.</td>
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<tr>
<td>Physical Development and Health</td>
<td>Health and Well Being</td>
<td>7. Demonstrates personal care and hygiene skills. 8. Demonstrates awareness and understanding of healthy habits.</td>
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<td>Social and Emotional Development</td>
<td>Self Concept and Self Awareness</td>
<td>1c. Demonstrates knowledge of his/her uniqueness (talent, interests, preferences, gender, culture, etc.)</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Relationships with Others</td>
<td>5a. Seeks input from others about a problem.</td>
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<td>Domain</td>
<td>Cluster</td>
<td>Standards/Indicators</td>
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| Communications, Language and Literacy | Motivation                     | 1a. Participates in small or large group activities for storytelling, singing or finger plays.  
1b. Asks questions.                                                                                                                                                                                                     | 17   |
| Communications, Language & Literacy  | Background Knowledge           | 2. Demonstrates he/she is building background knowledge.                                                                                                                                                                 | 17   |
| Communications, Language & Literacy  | Viewing                        | 3b. Identifies emotions by observing faces in pictures and faces of peers and adults.                                                                                                                                     | 17   |
| Communications, Language & Literacy  | Vocabulary                     | 5d. Identifies meanings of words used in read-alouds, in conversation and in descriptions of everyday items in the world around him.  
6b. Uses more complex words in conversation.                                                                                                                                                                              | 18   |
| Cognition and Knowledge of the World  | Mathematics: Overview          | Counting and Cardinality  
- Know number names and the count sequence.  
- Count to tell the number of objects.  
- Compare numbers.  
Measurement and Data  
- Describe and compare measurable attributes  
- Sort objects and count the number of objects in each category.                                                                                                                                                          | 25   |
| Cognition and Knowledge of the World  | Mathematics: Geometry          | - Identify and describe shapes (squares, circles, triangle, and rectangles).                                                                                                                                               | 26   |
| Cognition and Knowledge of the World  | Science: Earth and Space       | 4. Observes and describes characteristics of earth and space.                                                                                                                                                             | 29   |
| Cognition and Knowledge of the World  | Science: Living Things         | 5. Observes and describes characteristics of living things.                                                                                                                                                              | 29   |
| Cognition and Knowledge of the World  | Science: Physical Properties   | 6. Acquires knowledge about the physical properties of the world.                                                                                                                                                        | 30   |
| Cognition and Knowledge of the World  | Social Studies: Geography      | 3. Demonstrates knowledge of the relationship between people, places and regions.                                                                                                                                         | 31   |
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Critical Thinking Skill #1: Remembering by:
   - Providing hands-on opportunities to acquire knowledge
   - Encouraging the sharing of ideas
   - Responding to children’s responses in a non-judgmental way.
   - Using open-ended questioning
   - Encouraging peer-to-peer discussion
   - Inviting sharing of opinions and related rationales
   - Providing opportunities for critique
   - Modeling respect for and curiosity about different viewpoints
   - Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
   - Providing a classroom schedule that provides for integrated learning in large blocks of time
   - Recognizes successes. Confidence in their skills encourages children to challenge themselves and to gather more information.

b. Fosters Critical Thinking Skill #1: Remembering on an on-going basis by:
   - Creating a safe learning environment
   - Accepting children’s talk as a natural and vital part of a play-based classroom
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and a sharing of different points of view
   - Acknowledging the value of different perspectives and beliefs
   - Recognizing that disagreement and respectful conflict is valuable
   - Demonstrating patience when others are seeking information from you
   - Providing ample time for information-seeking
   - Encouraging information-seeking from a variety of sources
   - Showing genuine interest in unconventional ideas

c. Uses questioning/prompting to foster Critical Thinking Skill #1: Remembering such as:
   - What do you know?
   - What seems confusing? What doesn’t seem right?
Who could you ask for more information?
Where could you get more information?
What do you still need to know?
What would others think? Say?
How will you remember to stop and look for more information before making a decision?

d. Uses materials (ongoing) such as:
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid educator-only books)
   - Open-ended materials that can be used for many purposes
   - Materials that support exploration and experimentation, blocks of various shapes, materials to mix, art materials to combine, building materials
   - Rulers, tape measures, magnifying glasses, little trowels, clipboards, paper and pencils for children to record what they are noticing

e. Uses materials (specific) such as:
   - Books with partial images that provide relatively unknown information
   - Books that show investigations with clearly articulated questions
   - Books with missing information, for example, a missing part to a picture
   - Multimedia material that will provide children with information about a specific topic e.g. related to a planting theme
   - Thematic books; for example on a planting theme you might read:
     - *And the Good Brown Earth* by Kathy Henderson
     - *And Then It’s Spring* by Julie Fogliano
     - *City Green* by Dyanne DiSalvo-Ryan
     - *Crown Vegetable Soup* by Lois Ehlert
     - *Planting a Rainbow* by Lois Ehlert
     - *Sunflower House* by Eve Bunting
     - *The Carrot Seed* by Ruth Kraus
     - *Vera’s Baby Sitter* by Vera Rosenberg
   - Books that encourage children to seek information, for example:
     - *All the Water in the World* by George Ella Lyon
     - *All the World* by Liz Garton Scanion
     - *Do You Know Which Ones Will Grow?* By Susan A. Shea
     - *Just a Second* by Steve Jenkins
• Books that show characters seeking more information in various ways, for example:
  
  Sarah’s Questions by Harriet Ziefert
  
  The Watcher: Jane Goodall’s Life with the Chimps by Jeanette Winter

• Games/materials that encourage classifying/sorting

• Games that encourage fact-finding and information gathering such as 20 Questions

• Camera for recording observations and changes over time

• Photographs of various items

3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

• Do the children listen to others’ ideas?
• What vocabulary are they using to describe similarities and differences?
• Do they share ideas?
• Do the children ask questions related to a particular item, event or experience?
• Do they ask questions of each other?
• Do the children spend time seeking out new information?
• Do the children seek information from a variety of sources?
4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
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<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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<tr>
<td>English Language Learners</td>
<td>▪ Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<td>▪ Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<td></td>
<td>▪ Learn some words in the child’s first language, if possible.</td>
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<td></td>
<td>▪ Provide time for children to form questions when engaged in shared reading experiences.</td>
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<td></td>
<td>▪ Provide information books that have simple text and big pictures</td>
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<td></td>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<td></td>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<td>▪ Acknowledge what the child is doing, such as saying, “You are digging in the sand.”</td>
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<td></td>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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<tr>
<td>Behavior</td>
<td>▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
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<td></td>
<td>▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
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<td></td>
<td>▪ Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<td></td>
<td>▪ Work in small groups so the child receives appropriate attention.</td>
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<tr>
<td>Inclusion Criteria</td>
<td>Teaching Suggestions</td>
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<td>▪ Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<td>▪ Make eye contact so they focus more closely.</td>
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<td></td>
<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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<td></td>
<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
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<tr>
<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<tr>
<td></td>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
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**Communication**

- ▪ Speak clearly.  
- ▪ Use physical gestures to support what you are saying.  
- ▪ Point to items to connect words with items.  
- ▪ Provide time for the child to form words/phrases.  
- ▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
- ▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
- ▪ Acknowledge the child’s gestures and spoken attempts.  

**Sensory**

- ▪ Try hand over hand in exploration.  
- ▪ Encourage the child to touch the objects you are using to support comprehension.  
- ▪ Acknowledge the child’s efforts.  
- ▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
- ▪ Provide an item for a child to hold for comfort.  
- ▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
- ▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.  

**Physical**

- ▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
- ▪ Use hand over hand to assist in exploration.  
- ▪ Provide a step in front of a chair to stabilize the child’s body in the chair.
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Follow Occupational Therapy or Physical Therapy guidelines.</td>
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<td></td>
<td>• Pair the child with a physically able partner to assist in movement around the room.</td>
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<td></td>
<td>• Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
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<tr>
<td></td>
<td>• Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
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</tbody>
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5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop **Critical Thinking Skill #1: Remembering**. Families will need to be informed of how to play any learning experiences and games that are recommended below.

Families can:

- Try to be patient with your children’s many questions. They are seeking more information.
- Invite children to offer ideas, lots of them, about something: for example, what to have for supper, what to do on Saturday afternoon, which game to play, which book to read, how to fix something that has broken, which flowers to plant or vegetables, a gift to make for a friend.
- Play guessing games with your children. Reveal information gradually, helping your children to reconsider their previous response and weight it against the new information. “Find 5” is an example of a good guessing game.
- Invite your children to sort things with you, such as laundry. But don’t tell them how you are sorting the laundry. Invite them to figure out what the sorting rules are.
- Have children play the game “Shoe Box” at home. Family members can decide the category and have children search through the house to find things that fit the criteria. This activity could be fun for siblings as an after dinner game.
- Invite children to play the game “Mystery Metaphor” while you are travelling. For example, you might say, “This grocery bag is like a cave because…”
- Foster your children’s confidence. Do not judge their suggestions as right or wrong. Instead, try to engage the child in a discussion about consequences to show why their suggestion might not be correct or might not work.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #1: Remembering in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

**MYSTERY METAPHOR**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To recall personal information about classmates in order to share positive affirmations

**Learning Environment Set-up:**
- Small group
- Indoors or outdoors

**Materials:**
- A variety of items or pictures of items

**How to Do:**

1. Show two items or show a picture of two items. Name the two items. The goal is to have the children identify many ways these two items might be the same.
2. Prompt the children with a sentence starter, for example: “This paintbrush is like this tree branch because...”
3. Record the children’s responses.
4. Have the children take over the leadership in this game after a few tries. They may choose different items to compare.

5. Ensure the focus of the children is on generating many ways the items are similar. The more disparate the objects, the more creative the process is likely to be.

**Promoting Inclusion:**
- *English Language Learners:* Use gestures to emphasize your words in the game.

---

**I LIKE...**

**UPK Scheduling Recommendation:** Group Time

**Key Learning:** To recall information about classmates

**Learning Environment Set-up:**
- Large group area

**Materials:**
- One ball

**How to Play:**
1. Ask the group to sit in a circle.
2. Give the ball to one child in the group.
3. Explain and demonstrate that:
   - The child with the ball will roll it to someone else in the circle.
   - The child who rolled the ball must then say something they like about the child they rolled the ball to (for example, “I like Annie because she is nice,” “I like Tobias’s laugh,” “I like Mona’s smile,” “I like the way Tanko plays soccer.”
4. End the game at your discretion.
5. Hold a discussion using the RCA questions that follow.

REFLECT-CONNECT-APPLY Discussion Questions:

Reflect
a. What are some of the nice things that you heard people say in the game?

Connect
b. Do you think everyone thinks the same thing about you? Why or why not?

Apply
c. What would make people think differently about you?
d. What can you do in the class when you see someone do something that you like?
e. How can we work together to make each other feel good about ourselves?

STOP, LOOK & LISTEN

UPK Scheduling Recommendation: Group Time

Key Learning: To recall new information when considering “what happens next” in a scenario

Learning Environment Set-up:
- Small group work space

Materials:
- A stop sign that has the O turned into a picture of an eye and the round part of the letter P turned into the image of an ear.
Four scenarios, written or in picture format, depicting a final scene that suggests the following:

**Something important to an individual has been damaged:**
A child walks into a room where his brother is standing, sees a cracked CD on the counter and thinks, “He broke my CD!”

**Someone was not in the place they were expected to be:**
A child is coming off a soccer field. She looks around, thinking, “My mom left and didn’t watch my game!”

**Someone removed an object that belonged to someone else from its original location:**
A child arrives at her cubby, finds the lower shelf empty and thinks, “Someone stole my new boots!”

**Someone did not deliver an object that was important to and expected by someone else:**
A child and mother in the kitchen unload the last bag of groceries. The child thinks, “She forgot the strawberries I asked for!”

*Note:* Putting thought bubbles over the head of a character can help to clarify the person’s response.

**How to Do:**

1. Explain to the children what you and they will do. For example, tell them, “Do you remember when we talked about situations that made us angry? I am going to show you a picture of a child who seems to be getting angry. I want you to tell what you think the child might want to do next.”
2. Hold up the stop sign. Tell the children they are going to play “Stop, Look & Listen.”
3. Share the first scenario and read aloud the thought words in the bubble.
4. Ask the children to think about what the child may want to do next.
5. Ask the children to pretend they are the child with the broken CD. Then tell them that when they are pretending to be the other child they need to:
   - Stop.
   - Look around first.
Talk about what they see (that is, the brother and the broken CD).

Tell something else that might have happened to the CD.

Listen to what their brother might say. (Speak the following in role as the brother.) “I found your CD on the bottom step when I went to get the newspaper. It was broken. Maybe it fell there when you were carrying all those things in from the car last night. I wonder if the newspaper delivery person couldn’t see it in the dark and accidentally stepped on it.”

6. Ask the children to tell what the child in the scenario might be thinking now that the child has the new information

7. As a child responds, print the child’s thoughts in a thought bubble that can be placed beside the original one.

8. Ask the child how this new information has changed what the boy wants to do next.

9. Repeat the learning experience with the other scenarios at different times.

Variation:

- Encourage different children to play the other character’s role and say something that presents an alternative piece of information.

Promoting Inclusion:

- **English Language Learners**: Use dramatic gestures.

---

**LISTEN TO THIS**

**UPK Scheduling Recommendation: Group Time/Story Time**

**Key Learning:** To recall information from a story in a messaging game

**Learning Environment Set-up:**

- Carpeted space with students in circles of about 6-8 children

**Materials:**

- Storybook
- 1 small ball (such as a tennis ball) per group of children
- 1 basket or container per group of children

**How to Do:**

1. Read the storybook aloud to the children.
2. After divide the children into groups of 6 – 8.
3. Ask each group to form a circle.
4. Give 1 child in each group a ball.
5. Tell the children that this game involves whispering. Ask them to practice whispering by whispering the phrase, “Listen to this.”
6. Place a basket/container in the middle of the circle of children (see diagram).

7. Explain and demonstrate that:
   - You will whisper a message in the ear of the child holding the ball. The message should be about something that happened in the storybook (for example “The king was stuck in his castle.”).
   - That child will then run around the outside of the group and return to the same spot, while carrying the ball.
   - The runner will then whisper the message to the next child and give that child the ball.
   - The next child will do the same as the first.
   - This pattern continues until the last child in the circle completes a run around the group.
   - The last child to run will put the ball in the basket/container and say the message out loud.

10. Create new message each time and allow different children to start with the ball
11. The game ends at your discretion.
12. Hold a discussion using the RCA questions that follow.
**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. How easy or difficult was it for you to remember the message?
- b. Why do you think the message was mixed up sometimes?

**Connect**
- c. Tell us about a time when you have forgotten something important or something someone asked you to do?
- d. What might make it difficult for you to remember things at school? At home?

**Apply**
- e. What could you do to help you to remember things?
- f. What could you do to help other people remember things?

---

**MEMORY TRAY**

*UPK Scheduling Recommendation: Outdoor Play/Indoor Play*

**Key Learning:** To recall information about items to consider similar attributes

**Learning Environment Set-up:**
- Large group
- Outdoors

**Materials:**
- Tray
- Sheets of paper for each child
- 3-5 items to display on the tray. (Do not exceed five items. Start with three items with younger children)
- A small bag for each child to collect items

**How to Play:**
1. Explain that this game invites the children to share ideas with each other, one of the strategies for building critical thinking skills. The game provides an extra challenge of engaging the children’s memory and concentration skills.
2. Show a tray for one or two minutes with 3-5 items arranged on the tray: for example, a bottle cap, a stone, a leaf and a pine cone.

3. Tell the children you are going to take them on a walk in their neighborhood to do a scavenger hunt.

4. Ask the children to find and collect similar items on their walk.

5. When they return from their walk, give each child a sheet of paper. Allow the children several minutes to arrange their items on the paper in the way they remembered the tray being arranged.

6. Put the tray down again for the children to look at so they can self-assess their work.

7. Encourage the children to identify the common characteristics between the objects they found and the items on the tray you presented.

8. Perfect matching of items is not the goal. Rather, it is finding something that is like the original object in some way.

9. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**

a. Tell us which item from the tray was the easiest/hardest to match? Why?

**Connect**

b. How are your items similar to things that other children collected? How is your item like one of the items on the tray?

**Apply**

c. Find another item that is like the ________________? What will you look for?

>Note: As with any game, only children who are interested in participating need to engage. Keep in mind that many children observe before participating.
2. Teacher-guided

**SHOE BOX**

UPK Scheduling Recommendation: All Centers Open

**Key Learning**: To recall information in order to group items

**Learning Environment Set-up**:  
- Individual or partners

**Materials**:  
- 4 shoe boxes with lids  
- A Lego block  
- A cotton ball  
- A pebble  
- A toothpick

**How to Do:**

1. Affix one of the items to the lid of each shoe box, thereby creating "the Lego box," "the cotton ball box," "the pebble box" and "the tooth pick box."
2. Tell the children: I challenge you to find things in the classroom that are somehow the same as the objects on the box tops. There is no right or wrong item, but use your critical thinking brain to make your choices.
3. Invite the children to work either individually or with partners to find items that are similar to those on the lid.
4. Refrain from prompting them about the attributes they should look for. The children may spontaneously choose items that are similar in size, texture, color, shape, composition, function, and so on. The children should collect items throughout the day/week.
5. Gather the children as a group at an appropriate time, perhaps at the conclusion of the day. Bring the boxes to the group to discuss the items they contain.
6. Invite the children to ask each other about the items chosen. Ask: What factors did you use to decide on choosing these items?
7. Let them share their choices and thought process with each other. This sharing helps the children build vocabulary, respect for each other’s knowledge and confidence in their ability to articulate what they know.

**Note**: By using this type of open-ended learning experience, you are modeling acceptance of alternative ideas, as well as allowing children to practice generating different ideas.
Promoting Inclusion:

- **Behavior**: Pair the child with a friend in the game; having a partner may engage the child’s interest longer.

**WHAT’S THE SORTING RULE?**

**UPK Scheduling Recommendation**: All Centers Open

**Key Learning**: To recall information about items to sort them into groups

**Learning Environment Set-up**:

- Small group
- Indoors or outdoors

**Materials**:

- Several classroom items

**How to Do**:

1. Select two or three items (not more than five). These items could be objects or actual people.
2. Ask the children: Why do you think these items might belong in the same group?
3. Have the children take the lead in selecting items. Ensure the focus is on recognizing the common characteristics of the items and on generating many different groups the items may be part of. Avoid a guessing game about the reasons why a person selected the items. Again, the more disparate the objects, the more creative the process is likely to be.

**Promoting Inclusion**:

- **English Language Learners**: Use gestures to emphasize your words in the game. Play with a teaching partner who also speaks a child’s home language.
- **Communication**: Extend the children’s words. If the child says, “shoes,” you could say “running shoes” if you can see the similarity.
**ROLE-PLAYING**

**UPK Scheduling Recommendation:** All Centers Open/Outdoor Play

**Key Learning:** To recall information about living things

**Learning Environment Set-up:**
- Large group, outdoors

**Materials:**
- None

**How to Do:**
1. Extend the children’s learning by having them demonstrate their knowledge of certain words through drama.
2. Arrange the children in an area where they have room to move around, without hitting other children.
3. Ask: Can you move your bodies like the heavy stem? Can you be the tallest, thinnest stem?
4. Repeat with other examples of living things.
5. Observe how students respond to your instructions and the connections made between the words and the movements.
6. When you are taking anecdotal records of your students, record some of the descriptive language you hear them using such as long, heavy, thin, etc.

**Note:** This learning experience is also a way to reinforce vocabulary development.

**SHARED READING**

**UPK Scheduling Recommendation:** All Centers Open/Story Time

**Key Learning:** To recall information about a story

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on
How to Do:

1. Show the children that you have brought a book. Tell them that you will read it together. Prompting and questioning during a shared reading experience provides children opportunities to recall different aspects of the story by identifying characters actions and events.

2. Initiate the reading experience by asking questions about the book’s title, author and illustrator to generate a variety of ideas about the books contents.

3. While reading, pause occasionally to ask questions of the children that can foster Critical Thinking Skill #1, Remembering, such as:
   - What do you know?
   - What happened?
   - Do you remember why that happened?
   - What did the character do? Do you remember why they did that?
   - What seems confusing? What doesn’t seem right?

4. Follow up the shared reading by making the big book and other topic related books available to children in the reading area. Books offer children alternative resources for ideas and information about a topic. Books allow children to go beyond the information available directly from people in the room.

FIND 5

UPK Scheduling Recommendation: All Centers Open/Outdoor Play/Indoor Play

Key Learning: To recall information about objects in order to locate different items in a treasure hunt

Learning Environment Set-up:
   - Small group work area

Materials:
   - None

How to Play:

1. Introduce this game to the children as a treasure hunt. Have the children work individually or in pairs. Ask them to find objects following the prompts you give. Each time you instruct the children to find another object, add another criterion. For example, give the following series of prompts:
   - Find something that is red.
   - Find something that is red and hard.
Find something that is red and hard and flat.
Find something that is red and hard and flat with letters on it.
Find something that is red and hard and flat with letters on it and shaped like a hexagon.

(Answer: stop sign)

Find something you hold in your hand.
Find something you hold in your hand and write with.
Find something you hold in your hand and write with that has a lid.
Find something you hold in your hand and write with that has a lid and is orange.
Find something you hold in your hand and write with that has a lid and is orange and is erasable.

(Answer: erasable orange marker)

2. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. What made it easy or difficult to find the things you were asked to find?
- b. When was it most difficult?
- c. What did you do when it was hard to find the object you were asked to find?

**Connect**
- d. Tell us about another time when someone asked you do something, and you didn’t know what to do? What did you do?

**Apply**
- e. How might you get more information? Who could you ask? Where could you look?

**Promoting Inclusion:**
- **Behavior:** Pair the child with a friend. Working with a partner will help the child to sustain interest longer.
WHERE WERE YOU?

UPK Scheduling Recommendation: All Centers Open

Key Learning: To recall information about familiar locations

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Do:
1. Introduce this learning experience as a mystery game.
2. Take on the role of the main character and announce that you have been somewhere. Have a place in mind: for example, the grocery store, the doctor’s office, the bank, a local park or a drive-thru restaurant.
3. Invite the children to ask a series of questions to determine where you have been. The questions can be about what you did there, what you wore there, what you took there, how long you stayed there, and so on.
4. Allow the children to question you for as long as they like and guess as often as possible.

Variations:
- Encourage the children to take on the role of the main character. They can play the game with you, with each other or with family members.
- If they take on the role of the main character, children may want to have a picture of the place in hand while they answer questions. These pictures could come from books, magazines, photos, etc. The picture will help them keep in mind all the information about the place and what is done there.

Promoting Inclusion:
- Behavior: Acknowledge the child’s contributions to the learning experience. Consider using a turn-taking item (such as, a “talking stick” or puppet) so children know when it is their turn to contribute.
**I SPY**

UPK Scheduling Recommendation: All Centers Open/Outdoor Play/Indoor Play

**Key Learning:** To recall information about various items

**Learning Environment Set-up:**
- Indoors/outdoors
- Small group area

**Materials:**
- None

**How to Play:**
1. Introduce the game by saying that you are thinking about something you can see in the immediate space.
2. Say that you will keep the thing in your mind while you all play a guessing game.
3. Start by giving the first clue: for example, “I Spy with my little eye, something that is made of wood.”
4. Have the children now take turns asking a clarifying question to gather more information. For example, a child may ask, “Can it fit in my hand?”
5. When a child receives a response from the teacher, the child may make one guess as to what the object may be.
6. Continue the game until a child makes a correct guess. That child can lead the next round: choosing an object, giving a clue and responding to questions.

**Variation:**
- Encourage children to play “I Spy” among themselves and with family members.

**Promoting Inclusion:**
- *English Language Learners:* Use gestures to emphasize your words.
3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**SCENARIO 1**

Ms Z plans a two-week unit on shapes as it is a specific expectation of the program. She has done this unit before and knows she can fit everything in during a two-week block. Her goal is that children will be able to name the four basic shapes by the end of the unit. Her lessons include finding shapes in the classroom and bringing shapes from home. She creates an interest table with shape blocks, shape puzzles, objects that have different shapes, picture cards with the names of the shapes, and books. She reads books that name the shapes. She has children cut out shapes to hang on the class ‘shape’ tree. They use sponge shapes for creating pictures at the painting table. Children also cut around drawn shapes to create their own shape pictures. At the cut-and-paste table, there are cut up shapes for each child to use for their own shape picture. Ms Z explains to the children that a triangle has three points, a circle is round, etc. She also plans to use the ‘t’ for triangle to teach about the letter ‘t.’ She reinforces this information during group time when asking children how they know that this is a triangle. For her assessment at the end of the unit, she individually shows each child a shape card and asks them to name the shape. On her class checklist with the four identified shapes, she checks off the ones the children can name.

**SCENARIO 2**

Ms R recognizes that learning about two and three-dimensional shapes is ongoing. She understands that there is specific language associated with shape and position. In her organizing, she ensures that her classroom materials reflect a variety of different shapes and sizes so children can gather information in a hands-on way, for example wooden blocks, geo blocks, three dimensional...
shapes, pattern and attribute blocks, as well as found objects. She plans a variety of experiences for children to explore shapes in different ways throughout the year - by going on different shape walks, having children find different objects in the classroom for the group to talk about, problem-solving with attribute blocks. Her group lessons often include activities such as ‘Guess my sorting rule' with different shapes. Ms R provides opportunities for children to compare, explain their thinking, to use their own language to describe objects, and to make connections. She chooses books that explore shapes in different ways and asks children to talk about what they notice so they begin to use their own descriptive language. She interacts with the children as they build and asks them to talk about the shapes used in the structure and to reflect on their building. Ms R models and reinforces the geometric and spatial language. When appropriate, she asks children to represent their thinking through drawing and writing. As she listens and interacts with children, she takes anecdotal notes about their use of language. She notes when children are using specific shape language and what they understand about shapes. If she has insufficient information about some children, she plans time to interact and listen with them. Ms R uses her observations of the children to plan children’s next steps.

Notes

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Critical Thinking Skill #2: Understanding
(Explaining ideas and concepts)

To become a critical thinker, an individual must believe that they are able to find the facts that will help them to understand an idea. Providing children with learning experiences that help them learn ways to validate information through information books, asking questions, and using technology can help them to build that confidence. In a way they become detectives. Children ask many questions to find out more about the world around them. However, asking good questions is a skill that children build when they are exposed to models of good questions. Teachers guide children to ask questions that lead to better understandings and to think more deeply about their learning.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #2: Understanding in your classroom program. You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC for Critical Thinking Skill #2: Understanding.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
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<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1e. Uses “trial and error” method to figure out a task, problem, etc.</td>
<td>10</td>
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<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1f. Demonstrates awareness of connections between prior and new knowledge</td>
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<tr>
<td>Domain</td>
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<tr>
<td>Approaches to Learning</td>
<td>Creativity</td>
<td>3c. Experiments to further his/her knowledge. 3d. Seeks out connections, relations and assistance from peers and adults to complete a task.</td>
<td>10</td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Curiosity</td>
<td>4b. Expresses an interest in learning about and discussing a growing range of ideas. 4d. Investigates areas of interest.</td>
<td>11</td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Persistence</td>
<td>5b. Modifies strategies used to complete a task.</td>
<td>11</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Self Concept and Self Awareness</td>
<td>1e. Compares and/or contrasts self to others (e.g. physical characteristics, preferences, feelings, abilities).</td>
<td>15</td>
</tr>
<tr>
<td>Social and Emotional Development</td>
<td>Self-Regulation</td>
<td>2b. Appropriately names types of emotions (e.g., frustrated, happy, excited, sad) and associates them with different facial expressions, words and behaviors.</td>
<td>15</td>
</tr>
<tr>
<td>Social and Emotional Development</td>
<td>Relationships with Others</td>
<td>3b. Seeks guidance from primary caregivers, teachers and other familiar adults. 4d. Sustains interactions by cooperating, helping, and suggesting new ideas for play.</td>
<td>16</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Accountability</td>
<td>6f. Demonstrates the ability to create new rules for different situations.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Motivation</td>
<td>1d. Initiates conversations, both verbally and nonverbally, about things around them.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Background Knowledge</td>
<td>2d. Makes comparisons to words and concepts already known.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Viewing</td>
<td>3b. Identifies emotions by observing faces in pictures and faces of peers and adults.</td>
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<tr>
<td>Domain</td>
<td>Cluster</td>
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</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Representing</td>
<td>4b. Uses existing objects to represent desired or imagined objects in play or other purposeful way.</td>
<td>18</td>
</tr>
</tbody>
</table>
|                                     | Vocabulary                   | 5c. Responds/reacts to questions/comments indicating he understands meaning (e.g. body language, gestures, facial expressions and words).  
6b. Uses more complex words in conversations.  
6e. Begins to use appropriate volume and speed so spoken message is understood. | 18   |
| Cognition and Knowledge of the World| Counting and Cardinality: Know Number Names and the Count Sequence | 3. Understand the relationship between number and quantities to 10; connecting counting to cardinality. | 26   |
| Cognition and Knowledge of the World| Operations and Algebraic Thinking | 2. Duplicate and extend (e.g. what comes next?) simple patterns using concrete objects. | 26   |
| Cognition and Knowledge of the World| Geometry: Analyze, compare and sort objects | 1. Analyze, compare and sort two- and three-dimensional shapes and objects, in different sizes, using informal language to describe their similarities, difference, and other attributes (e.g. color, size, and shape)  
2. Create and build shapes from components (e.g., sticks and clay balls) | 27   |
| Cognition and Knowledge of the World| Science: Scientific Thinking | 1. Asks questions and makes predictions based on observations and manipulation of things and events in the environment | 28   |
| Cognition and Knowledge of the World| Social Studies: History      | 4. Develops an understanding of how people and things change over time and how to relate past events to their present and future activities. | 32   |
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Critical Thinking Skill #2: Understanding by:

- Encouraging the sharing of ideas
- Using non-judgmental questioning
- Using open-ended questioning
- Inviting sharing of opinions and related rationales
- Inviting sharing of opinions of children who may not spontaneously participate
- Thinking aloud (modeled by education and encouraged for children)

b. Fosters Critical Thinking Skill #2: Understanding on an on-going basis by:

- Creating a safe learning environment
- Providing places for children to talk together
- Valuing children’s opinions and questions
- Listening to the children’s discussion
- Provoking, suggesting or prompting
- Encouraging discussions and informal debates
- Providing opportunities for children to share their new learning with other
- Recognizing that disagreement and respectful conflict is valuable
- Acknowledging when you don’t know something
- Modeling research strategies (look up information in a book, ask others)
- Encouraging children to utilize available resources to gather information (look up information in a book, ask others)
- Providing, where possible, freedom for children to access other resources in the school or community. (Children might ask other educators, older children, seek out a community resource, and so on.)
c. Uses questioning/prompting to foster Critical Thinking Skill #2: Understanding such as:
   - How did you decide that?
   - What other ways could you have done that?
   - When have you made a similar decision before? How did you decide before?
   - Does anyone you know have to do this, too? What do they do?
   - What makes you think that?
   - Where did you see that information? Where did you learn that information?
   - Why do you think that?
   - Are you sure about that information/decision? How can you be sure?

d. Uses materials (ongoing) such as:
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Materials presented from multiple viewpoints (visual or text)
   - Books that encourage guessing and then offer accurate information, for example:
     - Guess Who? by Margaret Miller
     - Whose Hat Is This? by Katz Cooper
     - Whose Tools Are These? by Katz Cooper

e. Uses materials (specific) such as:
   - Books with partial images that provide relatively unknown information, for example:
     - Did You Know? (a series of books)
     - Guinness World Book of Records
     - Inside Puzzles (These books challenge children to discover hidden information.)
     - Missing Pieces Visual Puzzles
     - Ripley’s Believe It or Not! and Amazing Facts. (These books offer interesting information but rely on limited text. They are appealing to children who are hesitant to seek information from books.)
     - Spot the Differences (picture books)
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children demonstrate awareness of connections between prior and new knowledge?
- Do the children ask questions related to a particular item, event or experience?
- Do the children identify relevant and irrelevant information, pictures and symbols related to a familiar topic?
- Do the children construct viable arguments and critique the reasoning of others?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
</table>
| English Language Learners | - Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
- Learn some words in the child’s first language, if possible.  
- Provide time for children to form questions when engaged in shared reading experiences.  
- Provide information books that have simple text and big pictures  
- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators  
- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.  
- Acknowledge what the child is doing, such as saying, “You are **digging** in the sand.” |
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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<tbody>
<tr>
<td></td>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
</tr>
<tr>
<td>Behavior</td>
<td>▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
</tr>
<tr>
<td></td>
<td>▪ Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<td></td>
<td>▪ Work in small groups so the child receives appropriate attention.</td>
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<td></td>
<td>▪ Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<td></td>
<td>▪ Make eye contact so they focus more closely.</td>
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<td></td>
<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
</tr>
<tr>
<td></td>
<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
</tr>
<tr>
<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<tr>
<td></td>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
</tr>
<tr>
<td>Communication</td>
<td>▪ Speak clearly.</td>
</tr>
<tr>
<td></td>
<td>▪ Use physical gestures to support what you are saying.</td>
</tr>
<tr>
<td></td>
<td>▪ Point to items to connect words with items.</td>
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<tr>
<td></td>
<td>▪ Provide time for the child to form words/phrases.</td>
</tr>
<tr>
<td></td>
<td>▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
</tr>
<tr>
<td></td>
<td>▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s gestures and spoken attempts.</td>
</tr>
<tr>
<td>Sensory</td>
<td>▪ Try hand over hand in exploration.</td>
</tr>
<tr>
<td></td>
<td>▪ Encourage the child to touch the objects you are using to support comprehension.</td>
</tr>
</tbody>
</table>
### INCLUSION CRITERIA

- Acknowledge the child’s efforts.
- Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.
- Provide an item for a child to hold for comfort.
- Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.
- Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.

### TEACHING SUGGESTIONS

#### Physical

- Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.
- Use hand over hand to assist in exploration.
- Provide a step in front of a chair to stabilize the child’s body in the chair.
- Follow Occupational Therapy or Physical Therapy guidelines.
- Pair the child with a physically able partner to assist in movement around the room.
- Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.
- Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.
5. Strategies to Share with Families to Enable Them to Help Their Children

Both children and adults receive information from many sources and use it to shape their beliefs, decisions and actions. This helps us understand a topic or an idea in a deeper way. A key skill is the ability to validate information we receive: to confirm that it is accurate and complete. We do that in a number of ways. For example, we question our sources; are they reliable? We look to other sources that we trust; are they in agreement? We use reason; we ask, “Does this make sense?” We look for evidence; we ask, “What proves that the information is true?” Children need time, encouragement and practice to develop a questioning attitude and a critical mind. If we help them, we can more reasonably expect them to make sound, informed decisions.

It is important to engage families to extend learning at home and support their child/children to develop **Critical Thinking Skill #2: Understanding**.

Families can:

- Invite your children to share their thoughts and ideas about what they know. You can share with them.
- Provide opportunities for children to share what they have learned, for example, during dinnertime or before bed.
- Model curiosity about information received and the kinds of questions to ask to validate information. For example, you might ask “How do they know that starfish suck their food by covering it with their bodies?”
- Think out loud around your children to model using reason and evidence to validate information. For example, you might say, “I think it might rain today. There are gray clouds in the sky and the air feels a little wet.”
- Visit the library with your children to use or borrow information books about items that interest them. You will both learn more.
- Search weekly TV guides for programs on Discovery, or PBS that may be of interest to your children. Watch the program with them and discuss points of interest.
- Look for interesting videos on the internet to watch with your child so that a discussion about validating information happens during and after the viewing. For example, you might say: “Let’s watch this video about cats. They say that cats put their ears back when they are angry. I wonder how they know that. Let’s listen and see if they say so. Where else could we check to see if that is a fact?”
- Invite children to question what they have been told or read and to validate sources as legitimate.
- Foster children’s ability to respectfully disagree or have a conflicting opinion.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #2: Understanding in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

ONE OF THESE THINGS DOESN'T BELONG

UPK Scheduling Recommendation: Group Time

Key Learning: To explain why items do or don’t belong together

Learning Environment Set-up:
- Small group area

Materials:
- Collections of various items from the classroom, organized into groups of four

How to Do:
1. Create groups of four items where three items share similar qualities and one is different. For example, building on previous work on insects, you might show three spiders and one mosquito.
3. Create groups of items using a wide range of topics. Include some topics from the PKFCC. For example:
   - Fruits and vegetables
   - Cold and warm weather clothing
   - Number sets

**THE LAST WORD**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To explain the relationships between words/concepts

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Chart paper
- Markers

**How to Do:**
1. Have children take turns saying a word. Each word must connect to the previous word in some meaningful way. For example, Child A says “boat,” Child B says “lake,” Child C says “waves,” and so on.

   ![Diagram of words connected: Boat ➔ lake ➔ waves ➔ wet ➔ pool ➔ swim ➔ splash]

2. When the turn reaches the last child, that child has the last word for the game. The children can then begin another round with a new starting word.

3. To reinforce literacy skills and to help the children remember words already said, record the words on flipchart paper while the children play. Draw simple pictures to accompany the words.

4. When a child is not ready to provide a word in turn, allow that child to ask for the meaning of the last word used, ask for a clarifying charade, ask for a drawing, and so on. The child is allowed one lifeline and then must provide a word or the turn moves to the next player.

5. At the end of the game, ask a child to describe two critical thinking skills that were integrated into the game. The child can use the flipchart record for support and can also call on classmates or the teacher to help.
2. Teacher-guided

ASK ONCE, ASK TWICE

UPK Scheduling Recommendation: All Centers Open

Key Learning: To make sense of clues given in order to guess a mystery card

Learning Environment Set-up:
- Small group area

Materials:
- Two matching decks of playing cards

How to Do:
1. Have children play this game in pairs.
2. Give each child a complete deck of cards.
3. Child A takes the lead and selects a card from the deck, without showing it to the other child. Child B can then asks two questions:
   - The first question is related to the suit of the card (i.e., hearts, spades, diamonds, clubs).
   - The second question is related to the card value (number or face).
4. Children may ask as specific a question as they like. For example, they may ask:
   - What suit is your card?
   - What value/number is your card?
5. Or the questions can be vague. For example:
   - Is your card red?
   - Is the card lower than a 10?
6. After two questions, Child B can offer a guess by finding what they believe to be the matching card from their pile and asking Child A, “Is this your card?”
7. If Child B is not ready to guess, B can ask more questions until they are ready to guess. The children then switch roles.
8. The focus is not on guessing the right card quickly but on gathering more information progressively.
SLOW LEAK

UPK Scheduling Recommendation: Outdoor Play/Indoor Play

Key Learning: To explain an individual’s action in a role-play game

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Play:
1. Ask the children to pretend they are big balloons (they can do this by waving their arms in the air, bouncing around the room, hopping, and so on).
2. Now you will pretend to be a balloon when different things are happening to the environment or to the balloons. Do not tell the children what the situation is. The goal of the game is for them to ask questions and try to guess. For example, you could pretend that:
   a) A big windstorm has lifted the balloon into the air
   b) A balloon is tied to the back of a bicycle that is riding around town
   c) A balloon that is tied to a ceiling fan
   d) A balloon that has been released from a child’s hand and floats up slowly to the sky.
   e) A balloon that has a small hole in it and the air is slowly leaking out

3. After you demonstrate one of the examples, encourage the children to ask clarifying questions to try to determine what was happening to the balloon. These questions can be yes and no type questions such as:
   - Was the balloon moving fast?
   - Was the balloon moving slowly?
   - Was the balloon moving up?
4. Encourage the children to keep asking questions until one of the children can guess the situation. You can support their questioning by offering clues or ideas.

5. After they have guessed, invite the children to pretend to be a balloon in the same situation. Encourage children to do it in a way that is different from your example.

6. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**

a. How did you know what the balloon (teacher) was doing?
b. What did it feel like to be a balloon that was ___________ (lifted in the air, tied to a bicycle)?

**Connect**

c. Have you ever seen a balloon doing these different things?
d. How did that experience help you in your guessing?

**Apply**

e. What would happen to a balloon that__________________? (By creating different situations you allow children to apply what they already know to new experiences. These questions could extend the game if you asked children to mime the action after speaking about it.)

---

**WHERE ARE YOU GOING?**

**UPK Scheduling Recommendation:** All Centers Open

**Key Learning:** To explain the relationship between items needed for an imaginary journey

**Learning Environment Set-up:**

- Small group area

**Materials:**

- Create two or more “travel packs” for putting in a backpack. Each travel pack should be a collection of items that you would take to a location, for example:
  - For a beach: Bucket, shovel, sunscreen, hat, water bottle, towel, bathing suit
  - For school: Textbook, notebook, pencil, ruler, eraser, lunch
How to Do:
1. Distribute the backpacks to children within a small group setting.
2. Have a child open a backpack and remove items one by one. Ask the child to pause after each item.
3. Have others in the group guess where the child might be going based on the items revealed.

Note: It might help to discuss and plan beforehand for how the child removes the items so the most obvious ones are saved until last. That planning will encourage more guesses, the involvement of more children and make the game last longer. Depending on the children’s knowledge level, two children might be able to plan “when to reveal” together.

Promoting Inclusion:
- English Language Learners: Include items that are culturally specific, if possible.
- Sensory: Use fewer items to lower stimulation.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

SCENARIO 1

Independent Reading
Tershad goes to the book nook and chooses a book to read to himself using emergent reading skills. He demonstrates an understanding of print concepts as he holds the book the right way, examines the cover, and opens the book appropriately to the cover page. He examines the pictures as he tells the story from these pictures. He demonstrates his ability to read with understanding by predicting (I think he is going to get in trouble for that!), by inferring (He looks sad.), and by comparing (I read a book like this at home).

Note: Also see Language & Literacy Skill #2: Print Concepts
Notes

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SCENARIO 2

Block Centre
A small group of girls were working today at the Block Centre. They had decided that they were going to make a castle. They had already defined the space by placing long blocks around the perimeter of the castle but were now making some decisions about how to make the tall towers in the corner. The teacher came over to the group and decided to extend the learning for the children.

Teacher: I see that you have started to make a beautiful castle. I like the way you have shown the size and shape of the castle with these blocks. What have you decided to do next?

Students: We are going to build the tall towers in the corners! We don’t know which blocks to use. Let’s make them really high. Yeah. Let’s build them up to the sky. (Children have demonstrated their understanding of height). And at the top of the tower we need to make the pointy part. We don’t have a block for that! What can we use?
**Teacher:** We have a set of small blocks in this bin. Can you see the shape you need in there? Yes, that shape would work. Look at the shape on the bottom of this shape. What do you call this? Yes, the bottom is a square and this shape is a pyramid so we call it a square based pyramid. Some of you might want to use the small blocks to build if you really want to build the towers with this shape. What other blocks could you use if you want to make some tall towers in the corners of the big block castle? Look at the choices and give some a try. (Children choose rectangular prisms to make it tall but they are missing the point they wanted.)

**Notes**

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Critical Thinking Skill #3: Applying
(Uses information/knowledge gained in a new way)

Once a child has been able to gain information and develop beliefs about something, they can decide how to use or apply that information. They may do nothing with the information, plan on a way to share their information with others, change the way they do something...the possibilities are endless. It is important for children to have opportunities to take the knowledge they have accumulated and apply this information to a new idea or theory. Children generally find it exhilarating to apply their knowledge and this can build self-confidence.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #3: Applying in your classroom program.

You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the PreKindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC for Critical Thinking Skill #3: Applying.

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<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
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<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1f. Demonstrates awareness of connections between prior and new knowledge.</td>
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<td></td>
<td></td>
<td>2c. Communicates more than one solution to a problem.</td>
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<td></td>
<td></td>
<td>2d. Engages with peers and adults to solve a problem</td>
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</tbody>
</table>
| Approaches to Learning                 | Creativity and Imagination            | 3a. Chooses materials/props and uses novel ways to represent ideas, characters, and objects.  
3b. Identifies additional materials to complete a task. | 10   |
| Approaches to Learning                 | Curiosity and Initiative              | 4b. Expresses an interest in learning about and discussing a growing range of ideas  
4g. Willingly engages in new experiences and activities | 11   |
| Physical Development and Health        | Physical Development                  | 5c. Uses materials such as pencils, paint brushes, eating utensils and blunt scissors effectively  
7a. Demonstrates growing independence in using personal hygiene skills  
8c. Relates healthy behaviors to good personal health (milk for strong bones, spinach for strong muscles). | 12   |
<p>| Social and Emotional Development       | Self Concept and Self Awareness       | 1b. Identifies self as being part of a family and identifies being connected to at least one significant adult. | 15   |
| Social and Emotional Development       | Self-Regulation                       | 2b. Appropriately names type of emotions (e.g. frustrated, happy, excited, and sad) and associates them with different facial expressions, word and behaviors. | 15   |
| Social and Emotional Development       | Relationship with Others              | 5b. Uses and accepts compromise, with assistance                                      | 16   |
| Social and Emotional Development       | Accountability                        | 6e. Applies rules in new, but similar situation                                       | 16   |
| Social and Emotional Development       | Adaptability                          | 7c. Adjusts behavior as appropriate for different settings and/or events              | 16   |</p>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Motivation</td>
<td>1g. Makes choices about how to communicate the ideas he wants to share (e.g., gestures, scribbles, sign language, speaking).</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Background Knowledge</td>
<td>2b. Asks questions related to a particular item, event or experience.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Viewing</td>
<td>3a. Uses vocabulary relevant to observations</td>
<td>17</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Representing</td>
<td>4b. Uses existing objects to represent desired or imagined objects in play or other purposeful way (e.g., plastic banana for a telephone). 4c. Uses visual media to represent an actual experience 4e. Writes and draws spontaneously to communicate meaning with peers or adults during play.</td>
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</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Vocabulary</td>
<td>5d. Identifies meanings of words used in read-alouds, in conversations and in descriptions of everyday items in the world around him. 6c. Makes use of new and rare words introduced by adults or peers</td>
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<td>Cognition and Knowledge of the World</td>
<td>Mathematical Practices</td>
<td>5e. Use appropriate tools strategically.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Counting and Cardinality</td>
<td>2. Represent a number of objects with the written numeral 0-5 (with 0 representing a count of no objects).</td>
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</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Operations and Algebraic Thinking</td>
<td>2. Duplicate and extend (e.g., what comes next?) simple patterns using concrete objects</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geometry – Analyze, compare, and sort objects</td>
<td>2. Create and build shapes from components (e.g., sticks and clay balls)</td>
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</tbody>
</table>
| Cognition and Knowledge of the World | Science: Scientific Thinking          | 1f. Makes predictions based on background knowledge, previous scientific experiences and observations of objects and events in the world  
2b. Uses a variety of tools and materials to test predictions through active experimentation (child uses magnifying glass to examine pine needles; child puts large paper clip on water to see if it floats). | 28   |
<p>| Cognition and Knowledge of the World | Science: Earth and Space              | 4f. Demonstrates ways that each person is responsible for protecting our planet (e.g., recycling plastic, glass, and cardboard, reusing a plastic container sandwich box, mending clothing rather than throwing away, etc.). | 28   |
| Cognition and Knowledge of the World | Science: Physical Properties          | 6h. Explores and discusses simple chemical reactions with teacher assistance (e.g., baking soda and water, mixing oil and water).                                                                                      | 30   |
| Cognition and Knowledge of the World | Social Studies: Civics, Citizenship and Government | 6c. Demonstrates preferences and choices by participating when the class votes to make simple decisions                                                                                                                                                                    | 32   |
| Cognition and Knowledge of the World | The Arts: Theatre/Dramatic Play       | 5b. Assumes the role of something or someone else and attempts to speak in an appropriate manner and tone                                                                                                                | 35   |
| Cognition and Knowledge of the World | The Arts: Dance/Creative Movement     | 7a. Demonstrates concepts (feelings, directions, words, ideas, etc.) through creative movement.                                                                                                                                                                      | 35   |
| Cognition and Knowledge of the World | The Arts: Dance/Creative Movement     | 7b. Uses movement to interpret or imitate feelings, animals and such things as plants growing, or a rainstorm.                                                                                                                                                   | 35   |</p>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Technology: Foundations to Technology</td>
<td>2e. Invents and/or constructs simple objects or structures using common tools and materials in a safe manner (e.g., wood, glue, rulers, sandpaper, hammer, etc.).</td>
<td>35</td>
</tr>
</tbody>
</table>

2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Critical Thinking Skill #3: Applying by:
   - Using non-judgmental questioning
   - Using open-ended questioning
   - Inviting sharing of opinions and related rationales
   - Allowing time for thought
   - Providing opportunities for decision making and choice
   - Providing recording tools (print, visual, verbal/auditory)
   - Thinking aloud when planning actions (modeled by educator and encouraged for children)

b. Fosters Critical Thinking Skill #3: Applying on an on-going basis by:
   - Creating a safe learning environment
   - Providing places for children to talk together
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging goal-setting
   - Providing opportunities for children to develop and share plans with others
   - Recognizing that disagreement and respectful negotiation is valuable
   - Acknowledging that there will always be unknowns when looking to the future
   - Modeling research strategies (look up information in a book, ask others)
   - Modeling the asking of others to help as part of achieving a goal
   - Encouraging children to utilize available resources to gather information (look up information in a book, ask others)
Where possible, providing freedom for children to access other resources in the school or community (ask other educators, older children, call a community resource, and so on.)

Planning as a regular classroom activity so children will begin to think automatically in terms of what they want to do and how to carry it out. Schedule planning at the same time(s) each day. Children benefit from planning in small groups because the thoughts of others often help them generate their own ideas. However, they can also plan in pairs or individually. Make sure each child gets to express his or her plans.

c. Uses questioning/prompting to foster Critical Thinking Skill #3: Applying such as:
   - Encourage children to identify their goals by saying:
     - Make a decision about what you are going to do
     - Tell us what are you have planned to do.
   - Encourage them to consider the options for achieving their goals by asking:
     - Where will you do that?
     - What materials will you use/need?
     - Will you need any help?
     - Who might work on this with you?
     - How long will it take you?
   - Ask open-ended questions to seek accurate information about their intentions and how they intend to carry them out.

d. Uses materials (ongoing) such as:
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books about decision-making and choice
   - Books about sequenced events
   - Materials presented from multiple viewpoints (visual or text)

e. Uses materials (specific) such as:
   - Books with directions, such as recipe books and “how to” books. Such books often list at the outset the materials needed, the total time required, and so on
   - Books that show a character planning, for example:
     - *Frog and Toad Series* by Arnold Lobel
     - *The Party* by Barbara Reid
• Books where an event or experience does not go as planned, for example:
  
  The Secret Shortcut by Mark Teague
  A Day’s Work by Eve Bunting

• Books about decision-making, choice and sequencing events, for example
  
  Where the Wild Things Are by Maurice Sendak
  The Raft by J. LaMarche
  Harold and the Purple Crayon by C. Johnson

• Books about cooking, such as Stone Soup by Marcia Brown

• Books that reveal all the things that a person needs to do in order to accomplish a goal/plan, for example:
  
  The Wednesday Surprise by Eve Bunting
  A Day’s Work by Eve Bunting
  Jeremiah Learns to Read by Jo Ellen Bogart

3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

• Do the children identify action(s) as part of their plan?
• Do the children identify the materials needed as part of their plan?
• Do the children identify the need for human resources as part of their plan?
• Do the children have a first and final step in their plan?
• Is their plan built on prior knowledge and experience?
• Do the children record their plan (for their own purposes)?
• Do the children find a way to maintain their plan while waiting to begin action?
4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

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<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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| English Language Learners | ▪ Ensure the play foods in the dramatic area represent different cultural foods, such as rice, beans and different breads (flat and raised).  
▪ Use English words and invite the children to provide their first language word equivalents.  
▪ Invite the children to label items in their first language. Then, provide English labels with descriptors (color, texture, size): for example, “warm hat.”  
▪ Provide the vocabulary necessary to describe how they have applied an idea or a strategy I see that you have made a fish using the trapezoids and the hexagons.  
▪ Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
▪ Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
▪ Learn some words in the child’s first language, if possible.  
▪ Provide time for children to form questions when engaged in shared reading experiences.  
▪ Provide information books that have simple text and big pictures  
▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators  
▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.  
▪ Acknowledge what the child is doing, such as saying, “You are digging in the sand.”  
▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening. |
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| **Behavior**       | ▪ Have children working in small groups or independently with concrete objects to apply their knowledge to a new or unique application.  
▪ Keep the learning experience short. If the child's interest is waning but others want to continue, excuse the child after one item has been completed.  
▪ Acknowledge the child's contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.  
▪ Ensure children know the rules to avoid misunderstanding and anxiety.  
▪ Work in small groups so the child receives appropriate attention.  
▪ Start with items that allow success early on to engage the child, and then move to more challenging items.  
▪ Make eye contact so they focus more closely.  
▪ Place the child in close physical proximity to you so you can help maintain the child's focus.  
▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.  
▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.  
▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |
| **Communication**   | ▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children's words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child's gestures and spoken attempts.  
▪ Provide time for the child to form words/phrases.  
▪ Use Picture Exchange Communication symbols to help children tell you about their food, where they might travel to, their weekend story, and so on. |
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| Sensory           | - Use fewer items to lower stimulation, if necessary, when playing.  
                   | - Assist the child in telling a story by using the child’s favorite materials.  
                   | - Try hand over hand in exploration.  
                   | - Encourage the child to touch the objects you are using to support comprehension.  
                   | - Acknowledge the child’s efforts.  
                   | - Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
                   | - Provide an item for a child to hold for comfort.  
                   | - Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
                   | - Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting. |
| Physical          | - Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
                   | - Use hand over hand to assist in exploration.  
                   | - Provide a step in front of a chair to stabilize the child’s body in the chair.  
                   | - Follow Occupational Therapy or Physical Therapy guidelines.  
                   | - Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
                   | - Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.  
                   | - Pair children with an able friend to work together |
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop Critical Thinking Skill #3: Applying.

Families can:

- Develop emergency plans together as a family and ensure everyone knows what to do in case of a fire.
- Include children in opportunities to plan special events, such as the family dinner, a birthday party, weekend picnic, trip, and so on.
- Model how to ask for input from others when planning how to solve problems.
- Invite children to cook with you. Involve them in planning dinner and planning what needs to be purchased, finding a recipe and then following the recipe.
- Let children take photos of a weekend event to help them tell their story.
- Go through photos of a special event to tell how a story unfolded from a plan.
- Play verbal games on trips by asking children, “What should you do if…” Present different situations, for example:
  - You are at a friend’s house and feel sick.
  - You lose sight of me at the grocery store.
  - You spill your cup of milk on the kitchen floor.

- Have children help you plan what should go in a bag if you are going out for the day, for example: wet wipes, snacks, tissues, extra clothes, bus tokens, sun screen, and so on.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #3: Applying in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

PLAY FAVORITES

UPK Scheduling Recommendation: Group Time

Key Learning: To use information in order to make predictions (about favorite ice cream flavors or other favorite things)

Learning Environment Set-up:

- Small group (5-8 children)
- Carpeted area or a table

Materials:

- Paper with a 5 x10 table (for graphing)
- Colored pencils
- Colored stickers (optional)
- Large graph paper for modeling
- A sheet of graph paper for each child
How to Do:

1. Tell the children that you have been hearing them talk about their favorite things and that it might be interesting to find out and record what the class favorites are.

2. Explain that you will work with them to demonstrate how they might do their investigation.

3. Ask, “What do you think the five favorite ice cream flavors are for the children in this class?”

4. Record these five flavors on the bottom of the large graph paper. For example, make colored dots (or use stickers) in a column on the graph paper: brown for chocolate, yellow for vanilla, pink for bubble-gum, and so on. Ask the children to make a prediction about which of the five will get the most votes and be the favorite in the class.

5. Then ask the children to select which one of these five they each like best. Invite children to record their selection on the large graph paper by marking with a dot, an x or by coloring in the box.

6. Explain to the children that their next tasks are to:
   - Do the same activity on their graph paper. (Provide them with stickers or colored markers so that they can make dots on their paper to represent the ice cream flavors.)
   - Ask five friends what is their favorite of the five choices.
   - Ask each friend to record their vote in the column boxes in the same way they recorded their vote on the large graph paper.

7. Invite the children to compare their graphs.

8. Now, ask each child to choose another favorite to investigate. For example, a child might choose favorite colors, books, movies, animals, things to do at PreK, and so on.

9. Help the children to start their graphs. Invite them to ask others for their votes. Help them to record the votes.

10. Have the children share their graphs with the larger group during a regular gathering time and/or post them in the classroom. This learning experience may encourage others to examine a different favorite using the same method.
11. Ask RCA discussion questions to support the children’s learning.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. What were the favorite ________________?
- b. Were your predictions correct or incorrect? Why do you think that was?

**Connect**
- c. What did you know about your friends favorite things before we did this activity?
- d. Does anything seem unusual or unexpected about your results, based on what you already knew?

**Apply**
- e. What do you think would happen if you asked everyone in the class?
- f. How do you think this would turn out if you did it at home?
- g. What do you think the results would be if we asked the children in another class the same question?
- h. What do you think would happen if you asked the same question in a few weeks (or in another season)? Would the answers would be the same or different?

**Variation:**
- Encourage the children to initiate this learning experience with their families. Provide graph paper to help them get started.

**Promoting Inclusion:**
- **English Language Learners:** Use gestures to emphasize your words.
- **Communication:** Use a picture exchange system for some children to share their choices.
**How Many Guesses?**

**UPK Scheduling Recommendation: Group Time**

**Key Learning:** To use knowledge to make predictions

**Learning Environment Set-up:**
- Partners
- Indoors or outdoors

**Materials:**
- Box
- 6-10 common objects that will all fit into the box together

**How to Play:**
1. This guessing game challenges children to describe objects without using the actual object’s name.
2. Have the children play this game with a partner. Explain that:
   - Child A is the clue-giver; Child B is the guesser.
   - Child A, the clue-giver, chooses an object from the box, and gives clues (says words: one word at each turn) that describe the object. Child A does not say what the object is.
   - Child B first predicts how many clues s/he will need to hear before making a successful guess.
   - After each clue, Child B has a chance to guess what the object is. Child B can also pass on the guess and ask for the next clue.
3. As they play, the pair keeps count of how many clues are given.
4. When the guesser successfully identifies the object, the partners switch roles and start again.
5. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Was it difficult or easy to guess the mystery object?
- b. Did you guess the mystery object in the number of clues you predicted it would take?

**Connect**
- c. Have you ever made a guess before that was right?

**Apply**
- d. Is there anything you could do differently the next time you make a prediction?

**Variation:**
- As an alternative, children can use index cards with photographs of objects. This approach is less effective for young children. However, you might use it to build specific vocabulary or awareness of attributes of objects not readily available. For this Variation, you will need:
  - Magazine photos of simple objects such as dogs, cats, cereal boxes, and baseballs
  - 3 x 5 index cards
  - Glue

**Promoting Inclusion:**
- *English Language Learner*: Pair children with an English speaking peer.
- *Behavior*: Pair children with a friend for the game.

**GOOD GUESS!**

UPK Scheduling Recommendation: Group Time/Outdoor Play/Indoor Play

**Key Learning:** To use information in order to estimate

**Learning Environment Set-up:**
- Individual or small group
- Indoors
- Table
Materials:
- Counters
- 3 pieces of string

Note: Estimation is often very similar to a prediction. In both cases, children are working to make a good guess about an answer. For some children, estimation is a difficult concept. Children want to be right, and if there are eight objects, saying “about 10” is not good enough.

In mathematics we often encourage children to calculate the correct answer, but being able to estimate is a valuable skill. Children who develop that number sense can use the skill to determine whether their answers to math questions are reasonable.

You can adapt the strategy to teach children how to estimate other kinds of amounts, such as weights, lengths, and so on. You can also modify the task based on the child’s ability to count.

How to Play:

1. Spill out about 30 counters onto a table in front of a child.
2. Have the child use string to make a circle around 10 counters (see image).

3. After the child has counted 10 and circled them, say, "Now look at how many dots that is. Do you think you could make a circle around another group of 10 counters, without actually counting them? Give it a try."

4. If you see the child trying to count, say, "Oh, I see you’re counting. You know about how many 10 is; you don’t have to be exact. Next time, don’t count. Just make a close guess without counting." After doing this task a few times, the child will get better at mentally grouping objects into groups of 10.

5. Once the child can mentally divide objects into groups, show the child that if there are three groups, that means there are about thirty objects in all.
6. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. How many counters did you have?
- b. How many groups did you make?
- c. Were you able to find 10 counters without counting them?

**Connect**
- d. How did you know there were 10 counters inside your circle?
- e. How did you know how many counters there were altogether?

**Apply**
- f. What could you do next time you need to make smaller groups of counters or other things we count?

**Variations:**
- **What a Crowd:** Instead of counters and string, use people and skipping ropes. Or use illustrations of crowds where clusters of 10 can be circled.
- **More or Less:** Before counting, have children estimate which group of objects has more or fewer items. You can use objects in photos rather than actual objects.
- **Closer to 1, Closer to 10?** Before counting, children can estimate if the total items in a group (or total objects in a photo) is closer to 1 or closer to 10.
- **Closer to 5, Closer to 10:** Play in the same way as Closer to 1, Closer to 10? This Variation: is a valuable precursor to rounding.

**Promoting Inclusion:**
- **English Language Learners:** Count in other languages. Encourage children who have a home language other than English to take the lead and teach their peers.
- **Behavior:** Place the child in close physical proximity to you so you can help maintain the child’s focus on counting and guessing.
- **Sensory:** Put some children in smaller groups; for some children, counting can seem overwhelming.
- **Physical:** Use a table that allows all children to access the counters when playing.
**SOS CHARADES**

*UPK Scheduling Recommendation: Story Time/Group Time*

**Key Learning:** To use information in order to make plans

**Learning Environment Set-up:**
- Small group
- Indoors or outdoors

**Materials:**
- Photocopied scenarios
- 1 box
- Available classroom resources and materials

**How to Play:**
1. Before playing, photocopy the seven scenarios at the end of this learning experience. Cut out each one and put them in a box.
2. Tell the children that in this game some children will pick scenarios out of a box. Each child’s task will be to plan and perform the scenario chosen.
3. Have a child pick a scenario.
4. Read the scenario aloud to the children.
5. Give the child a few minutes to think about and plan his or her response. Tell the child s/he is free to use any resources or materials within the classroom.
6. Ask the child if s/he would like a classmate to help with the planning.
7. Have the child act out or share his/her response to the scenario.
8. Hold a discussion using the RCA questions that follow.

**Scenarios**

*Ben is home alone with his grandmother. She has fallen and can’t get up. What does Ben need to do?*

*Julio is at playing at school with his friends. Other kids are playing in different parts of the room. The fire alarm begins to ring. What does Julio need to do?*

*Tonja wants to make cookies. Her mom said she would help as soon as Tonja gets everything ready on the kitchen table. What does Tonja need to do?*
Aisha and her mom are going to the beach right after school. Aisha’s mom has asked Aisha to pack her things for the beach into her backpack. What does Aisha need to do?

Thomas and his dad are going shopping. Thomas’s dad has said Thomas will be in charge of the shopping once they get to the store. What will Thomas need to do at the store?

Maria’s little brother has asked her to show him how to build a car out of Lego. What does Maria need to do?

Paulo wants to make his Nana a birthday card and send it in the mail. What does Paulo need to do?

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**

a. What did ____________ do in the scenario?
   
b. Ask the child who performed the skit: Did you make a plan and follow it?
   
c. Ask the child who performed the skit: Did you plan any actions that you did not include?

**Connect**

   d. How did you know what to do?
   
e. Have you ever been in a situation like this one? What happened?
   
f. Do you know anyone that has been in a situation like this one? What happened?

**Apply**

   g. What would happen if another person did the skit? What might change? What might stay the same?

**Variations:**

- Have the child select and plan the scenario and share it with a group who has not heard the scenario. Can the group guess what the child is acting out?
- Encourage the children to initiate this game with their peers and family members.
Promoting Inclusion:
- **English Language Learners:** Pair children with a peer to help them understand what to do.
- **Physical:** Use pictures to sequence what to do.

**FREEZE AND MELT**

*UPK Scheduling Recommendation: Outdoor Play/Indoor Play*

**Key Learning:** To use information in order to make and carry out plans

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Armbands – yellow and blue (or any two different colors; 2 – 3 of each color)

**How to Play:**
1. Mark the boundaries of a play area that allows enough space for children to run and chase each other.
2. Ask the children for 2-3 volunteers to play the role of Freezers. Give each Freezer a blue armband.
3. Ask for 1-2 volunteers to be Melters. Give each Melter a yellow armband. (The number of Freezers and Melters will vary depending on the group size.)
4. Explain and demonstrate that:
   - When you say, “Go!” the Freezers will chase and gently tag the other children.
   - A child tagged by a Freezer must stop and stand in a frozen position (like a statue).
   - Melters can free frozen children (children tagged by a Freezer) by tagging them.
   - Freezers cannot freeze the Melters.
5. Before beginning the game, ask the children some questions to encourage them to make plans in how they might approach the game, whether they are a Freezer, a Melter, or just being chased, for example:
   - Have you decided what you are going to do?
   - What are you going to do?
   - Will you need any help?
• Who might work on this with you?

6. After a few minutes ask for new volunteers to play the role of Freezers and Melters. Before beginning again, repeat your questions for the children in their new roles. Observe if answers change as the game progresses. Are they applying new ideas in planning to tag or free others?

7. Continue the game for as long as desired.

8. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. When you were a Freezer was it difficult or easy to catch the runners?
- b. When you were a Runner, was it difficult or easy to stay away from the freezers?
- c. When you were a Melter, was it difficult or easy to help the others?
- d. Did you make a plan before you played? How did it help you play the game?
- e. Did you work with other people? How did it help you play the game?

**Connect**
- f. What information did you use to make your plan?
- g. Do you make plans when you play other games?

**Apply**
- h. What would you do differently the next time you play?
- i. What would you do the same next the time you play?
- j. How would you change your plan?
Variation:
- Tell the Melters that they must crawl between the legs of frozen children to unfreeze them.

**JUMP THE RIVER**

*UPK Scheduling Recommendation: Outdoor Play*

**Key Learning:** To use information in order to make a plan

**Learning Environment Set-up:**
- Outdoor play area

**Materials:**
- Skipping ropes
- Hula hoops
- Sticks
- Large blocks (or any objects to jump over)

**How to Play:**
1. Prepare the play area by scattering the skipping ropes, hula hoops and other objects across the play area. The objects will represent puddles, lakes and rivers (see diagram).
2. Ask the children to stand in a line, side by side, on one side of the play area.
3. Ask the children to use their imagination and pretend that the play area is a forest and the items on the ground are puddles, rivers and lakes.
4. Explain that in this game, every child wants to get to the other side of the play area without stepping in a puddle, river and lake. Tell them that it is not a race.
5. Tell children that the first time they move through the forest you want them to jump over two of the water barriers.
6. Invite children to make a plan in their minds of how they are going to travel through the forest and which water barriers they are going to cross. Remind children to be careful not to jump too close to each other.
7. Instruct the children to begin moving by saying “You’re off!” As the children move, observe their paths and if they followed instructions to cross only two water barriers.
8. When all children have reached the opposite side of the play area, invite 2–3 children to share their thinking about their plan by asking: "Did you make a plan before you started? Did you follow your plan once you started moving? Tell us about it."

9. Invite the children to go through the forest multiple times. Each time tell them a different number of barriers to cross, and invite the children to think of a plan before they move.

10. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Did you make a plan before you started?
- b. Did you follow your plan once you started moving?

**Connect**
- c. Why is it important to have a plan and to follow it?

**Apply**
- d. What would you do the same when we go across again?
- e. What would you do differently if we go across again?

2. Teacher-guided

**STORY TELLING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To use information about people’s characteristics in order to consider assumptions

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Paper
- Different drawing tools
How to Do:

1. Tell the children that you have a story you will tell to anyone who is interested.
2. Tell the story without showing any pictures and use character names that can be male or female, for example, Pat, Sam, Jean, etc.
3. Then, invite children to illustrate the story.
4. When their pictures are completed, have children compare and discuss why they thought certain characters were male and others female, children rather than adults, one skin color rather than another, and so on.
5. Discuss how assumptions change our understanding.

Note: The story telling learning experience can be adapted to address assumptions consistent with many biases. For example, tell a story about a race where Child A crosses the finish line first. Invite children to illustrate the story. When their pictures are complete, reveal that the children in the race were in wheelchairs.

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To use knowledge to draw conclusions

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Show the children that you have brought a book and tell them that you will read it together. Providing thought-provoking prompts during individual or shared reading experiences allows children to apply their understanding to draw alternative conclusions, without the need to focus on one “right” answer.
2. To support critical literacy, stop at various points in the story and ask:
   - Do you think this character is telling the truth?
   - Do you think this character knows what s/he is doing?
   - If you could tell the character something important s/he should know, what would it be?
What seems confusing about this story?
Are there any words that you have heard that you aren’t sure about?
What cues are you using to come to this conclusion?
What would you want to ask the author?

CHEF FOR A DAY

UPK Scheduling Recommendation: All Centers Open

**Key Learning:** To use knowledge about cooking to make a recipe

**Learning Environment Set-up:**
- Small group area
- Table

**Materials:**
- Paper
- Drawing/ writing tools

**How to Do:**
1. Tell the children you have seen them cooking in the play kitchen and making many meals using the pretend food, cooking utensils and oven/stove.
2. Invite children who are interested to create a recipe for a cookbook. The recipe is for a meal of their choice with whatever ingredients they choose. The cookbook will be available in the classroom for others to use when they play.
3. Tell the children that their recipes can be words and/or pictures. Some children may want you to support their recording of the recipe. You may wish to prompt using questions like the following:
   - What ingredients will you need?
   - Do any of the ingredients need to be washed, peeled or cut?
   - Will anything need to be cooked?
   - In what order will you add the ingredients?"
4. Invite the children to bring any toy food to the table to use when they create their recipes.
Promoting Inclusion:

- **English Language Learners:** Demonstrate what you want the children to do in “Chef for a Day.”
- **Behavior:** Using a small group will promote positive interactions and attention.
- **Sensory:** Use fewer items to lower stimulation.

**GUESS HOW MANY**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To use information in order to predict the number of items in a set

**Learning Environment Set-up:**

- Small group area

**Materials:**

- Large wooden building blocks

**Note:** This learning experience is directed to the children after they have demonstrated that they are able to understand quantity and one-to-one counting as well as the concept of number conservation (a number doesn’t change if the objects or arrangement change). If these skills are not in place, this learning experience will be meaningless.

**How to Do:**

1. Prior to the children’s arrival, build a structure with the large wooden blocks. Use between 10 and 20 blocks depending on the children’s counting skills. Be sure that there are blocks (some in the middle) that cannot be seen by walking around the structure. On top of the structure, place a sign that says, “How many?”
2. When the children arrive, invite them to look at the structure but ask them not to disassemble it.
3. Ask the children to predict how many blocks are in the structure.
4. Record the children’s predictions and their reasons. Use a three-column chart with the headings: Name, Prediction, Reasons.
5. After the children have given their predictions, ask them to suggest other ways besides counting they might figure out how many blocks are used.
6. Record the children’s ideas. Try them out and record the results.
7. Finally, take the structure apart, counting the blocks with the children. Compare the actual results with the children’s predictions.
8. Discuss with the children the effective predictions and methods for making those predictions. Ask: could those effective predictions work with other items?
9. Invite the children to participate in a “Guess How Many” game on another day with different items, such as shells in a jar, stones in a glass or balls in a basket.

10. Record the children’s engagement and understanding during such learning experiences. This anecdotal information will support your assessment of their skills.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**SCENARIO**

When children are at play, they have been given an open invitation to apply what they know to something new. They work in what Lev Vygotsky calls their Zone of Actual Development (working on familiar skills) but challenge themselves to come up with new ideas and to try things in new ways which expands their knowledge (a new zone known as the Zone Of Proximal Development which is the most powerful level of learning).

Max and Andy are working at the sandbox. It’s time to tidy up and they haven’t finished the ‘story’ they were creating with zoo animals. They want to keep it for the next day, but the morning class will be using the sandbox. The educator asks them to think about how they could let the morning class know that they don’t want their zoo to be touched. They decide they could make a sign. They go to the writing center and get a piece of paper.

**Andy:** We don’t know how to read yet. Maybe we could make a picture and you (referring to the educator) can show us how to do the words.

**Andy to Max:** Bend it so it will stand up on the table. (Andy refers to the piece of paper.)

**Max:** That will be the front.

**Andy:** Make a picture first.
Max: No, make your name.
Andy: Maybe we could make who made it so the morning kids will know.
Max: Oh, my M is sideways.
Andy: OK. Let’s draw a picture. Andy looks over Max’s shoulder while Max is drawing. Make a little picture so I can fit mine in.
Max: I’m going to put myself in it. (He had drawn a sleigh.)
Max gives Andy the brown marker.
Andy: Maybe we could make it like different colors. (He chose blue and finishes his picture.) Hey, we forgot the words.
Educator: What do you want to write?
Andy: Please don’t lift up the lid and enter.
Max: Or, please don’t lift up the lid. Please don’t enter.
Andy starts sound out p-p-p and writes it.
Max: I can’t write.
Andy starts going l-l-l but can’t figure out the letter. (Snack time is about to begin.)
Educator: Well, if you don’t think you could write it, what else could you do?
Andy: We could do a picture.
Max: Yeah, if we could make a picture of the sandbox and the lid and put an X through it.
They finish the picture and hurry over to the sandbox. They try to stand it up but the folded paper falls flat.
Max: It’s OK. Let’s get snack.
Andy: But how are they going to see inside? They won’t know what it says.
Adult: What could you do?
Andy: Put an arrow on the front so they know to open it up.
Max to Andy: You do it.
Andy (draws the arrow at the bottom of the picture to show to open it up): Now they know.
They both hurry to get their snack.
Notes
Critical Thinking Skill #4: Analyzing
(Breaking a concept into parts)

Children are encouraged to consider a reason for something or explain how they have come to a conclusion based on what they know. They are asked to decide between information that they have acquired and an assumption that may be based on what they have heard and not on facts. While this may be an abstract concept to very young children, older PreK children can start to determine the reason that they think about something in a particular way. It also involves being able to break a concept into its component parts and understand how each part is related to another. By analyzing their own thinking, children are able to think critically and more efficiently.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #4: Analyzing in your classroom program.

You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
</table>
| Approaches to Learning | Engagement | 1e. Uses “trial and error” method to figure out a task, problem, etc.  
2b. Attempts multiple ways to solve a problem. | 10   |
<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
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<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Curiosity and Initiative</td>
<td>4e. Takes objects and materials apart and attempts to reassemble them (e.g., puzzles, models, nuts and bolts).</td>
<td>10</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Relationships with Others</td>
<td>5b. Uses multiple pro-social strategies to resolve conflicts (e.g., trade, take turns, problem solve).</td>
<td>16</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Viewing</td>
<td>3e. Begins to identify relevant and irrelevant information, pictures, and symbols related to a familiar topic.</td>
<td>17</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Representing</td>
<td>4d. Reviews and reflects on his/her own representations.</td>
<td>18</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Mathematical Practices</td>
<td>a. Make sense of problems and persevere in solving them.</td>
<td>25</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geometry – Analyze, compare, and sort objects</td>
<td>1. Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes, using informal language to describe their similarities, differences, and other attributes (e.g., color, size, and shape)</td>
<td>27</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Science: Scientific Thinking</td>
<td>1b. Manipulates and observes objects in his or her surroundings to develop conclusions. 3a. Compares and contrasts attributes of objects, living things, and events in the environment to organize what they have learned.</td>
<td>28</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Music</td>
<td>4d. Compares and contrasts different samples of music.</td>
<td>35</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Dance</td>
<td>8b. Compares and contrasts different forms of dance.</td>
<td>35</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Cultural Differences</td>
<td>9. Expresses an understanding of artistic difference among cultures.</td>
<td>36</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Technology: Foundations to Technology</td>
<td>3b. Describes how technology can make finding information, completing tasks and solving problems faster and easier.</td>
<td>37</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. On-going teaching and learning strategies to support Critical Thinking Skill #4: Analyzing by:

- Encouraging the sharing of ideas
- Using non-judgmental questioning
- Using open-ended questioning
- Inviting sharing of opinions and related rationales
- Providing opportunities for critique
- Modeling respect for and curiosity about different viewpoints
- Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
- Providing a classroom schedule that provides for integrated learning in large blocks of time

b. Fosters Critical Thinking Skill #4: Analyzing on an on-going basis by:

- Creating a safe learning environment
- Providing places for children to talk together
- Valuing children’s opinions and questions
- Listening to the children’s discussion
- Provoking, suggesting or prompting
- Encouraging discussions and informal debates
- Recognizing that disagreement and respectful conflict is valuable
- Acknowledging the value of different perspectives and beliefs
- Acknowledging and valuing diversity of choices
- Acknowledging that all things do not go as planned
- Encouraging multiple attempts
- Providing verbal encouragement
- Acknowledging that learning can be a difficult process

c. Uses questioning/prompting to foster Critical Thinking Skill #4: Analyzing such as:

- What did you decide to do?
- What doesn’t seem to be going as planned? Why? What assumptions did you make?
- Do you believe him/her because s/he is your friend? Is an adult? Is older than you?
- Do you believe that because you cannot come up with any better idea?
Why should you believe this person/source of information?
What did you think would happen? How is the result different? What did you forget to think about?

d. Uses materials (ongoing) such as:
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid educator-only books)
   - Materials presented from multiple viewpoints (visual or text)
   - Uses Materials (specific) such as:
     - Games/materials that encourage classification/sorting based on criteria (provided or child-generated)
     - Games that encourage ranking or rating
     - Books that show characters working through a problem and coming to a conclusion
     - Games/materials that encourage sequences of classification/sorting and exhaustive classification/sorting
     - Books that address breaking down stereotypes and bias because of assumptions being incorrect/challenged:
       - *Harry, Willy and Carrot Head* by Judith Caseley
       - *The Paper Bag Princess* by Robert Munsch
       - *Paul and Sebastian* by Rene Escudie

3. Observation, Documentation, Assessment

Use anecdotal observations/records to document evidence related to the following questions:

- Do the children identify their conclusions?
- Do the children explain the reason they came to that conclusion?
- Do the children question the sources of their information?
- Do the children give reasons why they should believe this person/source of information?
- Do the children explain their assumptions?
- Do the children recognize when they have missed important information?
- Do the children make connections between limited experiences and limited information?
- Do the children construct viable arguments and critique the reasoning of others?
4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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<tbody>
<tr>
<td>English Language Learners</td>
<td>▪ Use pictures to support your scenarios, if possible.</td>
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<td></td>
<td>▪ Find out some first language words that might assist in telling anecdotes.</td>
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<td></td>
<td>▪ Provide many learning materials, such as, puzzles and story books that challenge traditional stereotypes.</td>
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<td></td>
<td>▪ Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<td></td>
<td>▪ Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<td></td>
<td>▪ Learn some words in the child’s first language, if possible.</td>
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<td></td>
<td>▪ Provide time for children to form questions when engaged in shared reading experiences.</td>
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<td></td>
<td>▪ Provide information books that have simple text and big pictures</td>
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<td></td>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<td></td>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<td></td>
<td>▪ Acknowledge what the child is doing, such as saying, “You are digging in the sand.”</td>
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<td></td>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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</table>
| **Behavior**       | ▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.  
▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.  
▪ Ensure children know the rules to avoid misunderstanding and anxiety.  
▪ Work in small groups so the child receives appropriate attention.  
▪ Start with items that allow success early on to engage the child, and then move to more challenging items.  
▪ Make eye contact so they focus more closely.  
▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.  
▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.  
▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.  
▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |
| **Communication**  | ▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child’s gestures and spoken attempts.  
▪ Provide time for the child to form words/phrases.  
▪ Use Picture Exchange Communication symbols to help children tell you about their food, where they might travel to, their weekend story, and so on. |
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<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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</thead>
</table>
| Sensory            | ▪ Use fewer items to lower stimulation, if necessary, when playing.  
|                    | ▪ Assist the child in telling a story by using the child’s favorite materials.  
|                    | ▪ Try hand over hand in exploration.  
|                    | ▪ Encourage the child to touch the objects you are using to support comprehension.  
|                    | ▪ Acknowledge the child’s efforts.  
|                    | ▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
|                    | ▪ Provide an item for a child to hold for comfort.  
|                    | ▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
|                    | ▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.  
| Physical           | ▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
|                    | ▪ Use hand over hand to assist in exploration.  
|                    | ▪ Provide a step in front of a chair to stabilize the child’s body in the chair.  
|                    | ▪ Follow Occupational Therapy or Physical Therapy guidelines.  
|                    | ▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
|                    | ▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.  
|                    | ▪ Pair children with an able friend to work together.  

5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop Critical Thinking Skill #4: Analyzing. Families will need to be informed of how to play any learning experiences and games that are recommended below.

Families can:

▪ Challenge your children’s reasoning when they voice incorrect assumptions: for example, “Daddy can’t make supper – only mommies do that.”
• Be conscious of stereotypes you model and present to your child. Consider challenging the stereotypes in your own life.
• Purchase non-gender play materials. Try to be open to your children playing with materials that are often gender specific, for example, girls playing with trucks.
• When possible, provide your children with clear reasons for a decision, rather than “Because I said so.”
• Model apologizing when you jump to an erroneous conclusion. Our children learn from us by what we do.
• When shopping together for groceries ask your child to make comparisons between food items or to classify different items. For example, ask “What is the same about these items?” or “What other food would belong in the fruit category? Why do you think that?”
• Review books for your child by looking to see if they reinforce stereotypes or promote biased thinking. Don’t buy those books that do.
• When finished reading a book with your child ask them to compare it to another book in specific ways. For example, “How was the girl in Book A the same/different than the girl in Book B”.

Books That Can Be Supportive in Challenging Assumptions Related to Stereotypes and Bias
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #4: Analyzing in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

5 WHYS

UPK Scheduling Recommendation: Group Time/Story Time

Key Learning: To analyze the underlying problem in a social situation

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Do:
1. Whether reading a work of fiction or non-fiction, children can be challenged to play “5 Whys.” This strategy involves a series of “Why?” questions to probe more deeply into the information available from the text or from other sources.

2. For example, suppose a child in the story you are reading aloud is unhappy. Using “5 Whys,” go through the following steps to help identify underlying causes and problems:

   Why is Child A unhappy?
   - Because he wasn’t allowed to go to the park with his friends.
Why was he not allowed to go to the park with his friends?
Because his families didn’t think it was safe.

Why did his families think that was not safe?
Because he would be going without an adult.

Why would an adult not be going with him?
Because his families can’t go to the park right now.
or

Why is going to the park without an adult dangerous?
Because he could get injured and be alone.

Why can’t his families go to the park right now?
Because Grandma and Grandpa are arriving soon.
or

Why do children get injured at a park?
Because it is easy to fall from a climber or trip when you are running.

3. Learning experiences like “5 Whys” help children learn to identify problems and to appreciate the complexity of an issue.

**Promoting Inclusion:**
- **Behavior:** Build up to the questions. It is possible that you may lose the children’s interest in the story if there are too many interruptions. Gauge interest and act accordingly

**WHAT’S THE SAME?**

**UPK Scheduling Recommendation:** Group Time

**Key Learning:** To analyze a situation in order to determine a sorting rule

**Learning Environment Set-up:**
- Large group carpeted area

**Materials:**
- None

**How to Play:**
1. Explain to the children that in this game they try to figure out a sorting rule. Remind them that both the teacher and the children must listen respectfully to all the questions and answers.
2. Select two children to come to the front of the class. Make your choices based on characteristics shared between the two children. For example, they might both be wearing white sneakers. Announce that these children have something the same about them. Say to all the children: "Let’s try to figure out what is the same about these two children. Can you ask questions to try to guess what is the same about our two friends?"

3. Begin by inviting the two children at the front of the group to look at themselves and each other to try to determine what is the same. Encourage them to ask questions, such as "Are we the same because......?"

4. If they are not able to determine what is the same, then invite other children in the group to make guesses, in the form of questions such as, "Are they the same because......?"

5. If the children are not able to determine the sorting rule (what is the same) then you can invite a third child to join the group using the same characteristic (e.g., white sneakers). As the group gets larger it might become clearer what is the same between members of the group.

6. Repeat the guessing process as above. If children are able to determine the sorting rule, then celebrate their successful guessing.

7. If the children are not able to determine what is the same, you can continue to invite children to join the group to grow the group, or reveal the characteristic to the group.

8. Repeat the activity as often as children remain interested.

Note: It is important to ensure that all children have a chance to join one of the sorting groups.

Variation:
- Have a child lead the game by determining a sorting rule and selecting the first child that joins them.

Promoting Inclusion:
- English Language Learners: Pair children with English speaking peers.
- Physical: Assist children to be part of the game. Such involvement helps other children see similarities in others rather than differences.
2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To analyze conclusions drawn in stories

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Show the children that you have brought a book and tell them that you will read it together. Prompting and questioning during a shared reading experiences allows children to practice analyze events, characters actions and conclusions that are drawn in the story without the need to focus on one “right” answer.

2. You can extend learning by prompting children with questions like the following:
   - What do you think is happening in this scene?
   - Why did that happen?
   - What clues are you using to come to this conclusion?
   - What about the picture suggests to you that this is what is happening?
   - Is it possible some other information is missing?
   - What did the character decide to do?
   - What doesn’t seem to be going as planned? Why? What assumptions did the character make?
   - Why should the character believe (or question) this person/source of information?
ACCURATE OR ASSUMPTION

UPK Scheduling Recommendation: All Centers Open

Key Learning: To analyze conclusions drawn by other children in pretend social scenarios

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Do:
1. Tell an anecdote of a person’s experience and perception, including a conclusion the person has come to.
2. Following each anecdote ask the children, “Is that an accurate conclusion or an assumption?”
3. Encourage the children to talk about assumptions and how people may come to different conclusions if they have new kinds of experiences. For example, you might say:

   **Tristen moved into a new neighborhood. He visited the local park three times. Each time he saw boys playing soccer. Tristen concludes that only boys play soccer. Is that an accurate conclusion?**

   **Magdeline just met her new doctor. She has had three different doctors in her life. They have all been men. Magdeline thinks that all doctors are men. Is that an accurate conclusion?**

   **Jamar was at a community celebration. There were police officers at the celebration. Jamar noticed men and women wearing police officers uniforms. Jamar thinks that police officers can be men or women. Is that an accurate conclusion?**

Promoting Inclusion:
- English Language Learning: Use pictures to support your scenario or find out some first language words that might assist in telling the anecdotes.
WHO DOES THAT?

UPK Scheduling Recommendation: All Centers Open

Key Learning: To analyze the things people do and are able to do.

Learning Environment Set-up:
- Small group (approximately 5-8 children)
- Carpeted area or a table

Materials:
- A set of matched picture cards showing people doing things that challenge stereotypes of gender, age, race and other biases. For example, the photos might include:
  - One of girls playing football matched to one of boys playing football
  - One of a young person jogging matched to one of a senior citizen jogging
  - The cards could also include pictures of heterogeneous groupings, for example, two pictures that have both boys and girls playing basketball.

How to Play:
1. Invite the children to play this matching game. Children have to match people engaged in the same activity.
2. Listen to the children while they play. Prompt them to question their conclusions if their comments reflect stereotypes, for example, “Girls don’t play football!”
3. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. What did you notice about the people in the photos? Why do you think that?

**Connect**
- b. What sports do you like to play? What activities do you like to do?
- c. Have you ever been told you cannot play a game or do an activity? Why do you think someone said that to you?

**Apply**
- d. How could we make sure that the kids in our class get to do the things they like to do?
- e. How could we change people’s opinions about...?
20 QUESTIONS

UPK Scheduling Recommendation: All Centers Open

Key Learning: To analyze responses to questions in order to determine the mystery item

Learning Environment Set-up:
- Individual or partners

Materials:
- A container
- A variety of appropriate objects, each small enough to fit into the container

How to Play:
1. Hide an object in a container or behind your back.
2. Invite the children to ask “yes” or “no” questions in order to guess the object. Determine a way to keep track of the number of questions asked. For example, use a tally system or invite one child to be the “question counter.”
3. Remind children that words like “can” and “does” are useful question starters for this game.
4. Allow the group of children to ask as many as 20 questions in order to figure out the object.
5. Reveal the object if, after 20 questions, the group has not guessed correctly.

Variations:
- Hide an object, but at the start of the game give the children a clue. For example, hide an apple and tell the children the object is a fruit. The clue will help them to focus their questions and will make the game move faster.
- Encourage the children to lead the game and play it with each other and family members.
- Reduce the number of questions, if 20 questions are too many to maintain children’s interest.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.
Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**SCENARIO**

Children in prekindergarten are already consumers of media texts. They are surrounded by signs in their environment, by advertising in print, on television and in the stores they frequent. Advertisers know that children are a lucrative audience, and they target them with their packaging and advertising. The packaging of toys and food products aimed at children are texts which need to be read and analyzed. This analysis involves higher level thinking skills which are important for child development.

The teachers have collected packaging for toys, cookies, cereals, candies, snack food, as well as current video game packaging, movie posters, and photographs. These media texts provide much to read, not in terms of the number of words, but in the design and content of the packaging.

Children were shown the “Boom Blox” video game advertisement for Wii and asked to consider the following questions:

- What did you notice?
- Who do you think this ad was made for?
- What makes you say that?

In one class, children responded by saying they thought the ad was made for kids. Responses to the prompt, “What makes you say that?” included:

- “It’s a game and kids play games.”
- “It has toys on it.”
- “It looks fun.”
- “I think candy comes out of the monkey.”

**Notes**
Critical Thinking Skill #5: Evaluating
(Making judgments about information based on a set of criteria)

We want children to learn how to evaluate the information they receive. Children will use a number of tactics to do this. They will confirm information with another trusted adult. Consider when a child will ask, “Miss, Danny says that it is okay for me to play with this toy? Is it?” When a child does this, they are checking information that does not seem quite right to them, for some reason. We want to encourage children to continue to question and prod further so that the truth they are building is informed.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #5: Evaluating in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific cluster, standards/indicators and their location in the PKFCC.

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<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
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<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1c. Engages in pretend and imaginative play – testing theories, acting out imagination. 2b. Attempts multiple ways to solve a problem. 2c. Experiments to further his/her knowledge.</td>
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<tr>
<td>Approaches to Learning</td>
<td>Creativity and Imagination</td>
<td>3c. Experiments and seeks additional clarity to further his/her knowledge. 3f. Communicates more than one solution to a problem.</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Self-Regulation</td>
<td>2a. Expresses feelings, needs, opinions and desires in a way that is appropriate to the situation. 2c. Demonstrates an ability to independently modify his/her behavior in different situations.</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Relationships with others</td>
<td>5b. Uses multiple pro-social strategies to resolve conflicts (e.g., trade, take turns, problem solve).</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Accountability</td>
<td>6f. Demonstrates and ability to create new rules for different situations.</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Adaptability</td>
<td>7d. Uses multiple adaptive strategies to cope with change (e.g., seeking social support from an adult or peer, taking deep breaths, engaging in another activity).</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Background Knowledge</td>
<td>2b. Correctly identifies meanings of words in in read-alouds, in conversation, and in the descriptions of everyday items in the world around them. 2c. Uses new vocabulary correctly. 2d. Makes comparisons to words and concepts already known</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Viewing</td>
<td>3b. Identifies emotions by observing faces in pictures and faces of peers and adults.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Representing</td>
<td>4b. Uses existing objects to represent desired or imagined objects in play or other purposeful way (e.g., plastic banana for a telephone). 4c. Uses visual media to represent an actual experience. 4d. Reviews and reflects on his/her own representations.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Mathematics – Operations and Algebraic Thinking</td>
<td>2. Duplicate or extend (e.g., what comes next?) simple patterns using concrete objects.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Science: Scientific Thinking</td>
<td>1b. Manipulates and observes objects in his or her surroundings to develop conclusions. 1d. Organizes his or her observations of objects and events by identifying, classifying, etc. 3d. Makes age appropriate, logical conclusions about investigations.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Science: Earth and Space</td>
<td>4f. Demonstrates ways that each person is responsible for protecting our planet (e.g., recycling plastic, glass, and cardboard, reusing a plastic container sandwich box, mending clothing rather than throwing away, etc.).</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Science: Physical Properties</td>
<td>6d. Describes tools and their specific functions (e.g. hammer for pounding nails).</td>
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<td>Cognition and Knowledge of the World</td>
<td>Social Studies: Civics, Citizenship and Government</td>
<td>5a. Recognizes that all children and adult have roles, rights, and responsibilities at home, school, in the classroom and in the community. 5b. Expresses that rules are for everyone. 5e. Describes possible consequences when rules are not followed.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Social Studies: Civics, Citizenship and Government</td>
<td>6d. Demonstrates preferences and choices by participating when the class votes to make simple decisions.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Visual Arts</td>
<td>2c. Shares opinions about visual arts, creations, and experiences.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Music</td>
<td>4c. Engages in music activities having different moods, tempos, and rhythms.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Dance/Creative Movement</td>
<td>8d. Describes interpretations and reactions to dance and movement experience (e.g., drawing a picture, acting it out, retelling a story).</td>
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2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Critical Thinking Skill #5: Evaluating by:
   - Encouraging the sharing of ideas
   - Using non-judgmental questioning
   - Using open-ended questioning
   - Inviting sharing of opinions and related rationales
   - Providing opportunities for critique
   - Modeling respect for and curiosity about different viewpoints
   - Thinking-aloud (modeled by educator and encouraged for children)

b. Fosters Critical Thinking Skill #5: Evaluating on an on-going basis by:
   - Creating a safe learning environment
   - Providing places for children to talk together where they won’t disturb others with their play
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and informal debates
   - Recognizing that disagreement and respectful conflict is valuable
c. Use questioning/prompting to foster Critical Thinking Skill #5: Evaluating such as:

- What do you think about…? What makes you think that?
- What do you think is happening? How do you know? What suggests to you that this is what is happening?
- Can you think of any reasons why…? Why do you think that might be possible?
- Can you think of a similar situation/thing? What do they have in common?
- How are they different?
- What might someone, who disagrees, say to challenge that idea?
- If you had to decide one way or the other, what would be your decision?

d. Uses materials (ongoing) such as:

- Resource/information books in different formats for different learners (language, picture, simple text, Braille)
- Books that are easily accessed (avoid educator-only books)
- Materials presented from multiple viewpoints (visual or text)

e. Uses materials (specific) such as:

- Games that rely on the process of elimination such as Guess Who? or Clue Jr.
- Games/materials that encourage classification/sorting based on criteria provided or child-generated
- Games that encourage ranking or rating

3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children ask questions using who, what, how, why, when, and what if?
- Do the children demonstrate awareness of connections between prior and new knowledge?
- Do the children ask questions related to a particular item, event or experience?
- Do the children identify relevant and irrelevant information, pictures, and symbols related to a familiar topic?
- Do the children construct viable arguments and critique the reasoning of others?
4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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| **English Language Learners** | - Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
- Learn some words in the child’s first language, if possible.  
- Provide time for children to form questions when engaged in shared reading experiences.  
- Provide information books that have simple text and big pictures  
- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators  
- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.  
- Acknowledge what the child is doing, such as saying, “You are digging in the sand.”  
- Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening. |
| **Behavior** | - Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.  
- Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.  
- Ensure children know the rules to avoid misunderstanding and anxiety.  
- Work in small groups so the child receives appropriate attention. |
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| ▪ Start with items that allow success early on to engage the child, and then move to more challenging items.  
▪ Make eye contact so they focus more closely.  
▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.  
▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.  
▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.  
▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |

| Communication | ▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child’s gestures and spoken attempts. |

| Sensory | ▪ Try hand over hand in exploration.  
▪ Encourage the child to touch the objects you are using to support comprehension.  
▪ Acknowledge the child’s efforts.  
▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
▪ Provide an item for a child to hold for comfort.  
▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting. |
5. Strategies to Share with Families to Enable Them to Help Their Children

Both children and adults receive information from many sources and use it to shape their beliefs, decisions and actions. A key skill is the ability to validate information we receive: to confirm that it is accurate and complete. We do that in a number of ways. For example, we question our sources; are they reliable? We look to other sources that we trust; are they in agreement? We use reason; we ask, “Does this make sense?” We look for evidence; we ask, “What proves that the information is true?” Children need time, encouragement and practice to develop a questioning attitude and a critical mind. If we help them, we more reasonably can expect them to make sound, informed decisions.

It is important to engage families to extend learning at home and support their children to develop Critical Thinking Skill #5: Evaluating.

Families can:

- Be patient with the many questions your children ask.
- Answer questions honestly.
- Be a good model for how to learn. If you don’t know the answers to your children’s questions, ask them how you might find the right answers together. Become learning partners. YOU DON’T NEED TO KNOW ALL THE ANSWERS.
- Play learning experiences and games that encourage the children to think about the validity of their answers. Guessing games are fun and beneficial to play when you are traveling with your children. Educators can direct you to some good ones.
Encourage children to sort items at home. Start with things that are very different, such as, bottle caps and bread tags. Give the children a few of each and ask the children to sort them into piles that look the same. Eventually, ask the children to sort items that are similar but different enough, for example, bottle caps or buttons. Make sure you ask the children how they discern the differences. Dollar store packages of dinosaurs, animals, cars, and bugs are also good for sorting activities.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #5: Evaluating in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners' needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.
1. Teacher-initiated

**WHAT’S UNDER THERE?**

**UPK Scheduling Recommendation: Group Time**

**Key Learning:** To evaluate visual clues

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Rectangular building blocks
- A series of images that give clues to the identity of a mystery object

**How to Do:**
1. The images will be incorporated into a tower made of building blocks and so place them in a vertical sequence (see illustration).
2. The bottom layer is a picture of the object to be guessed (e.g., a cow).
3. Place a block on top of this image to hide the image (cow). The next image is a clue to the object that is pictured at the bottom of the pile (e.g., a carton of milk).
4. Place another block on top of this image. Continue to build the tower in this way, alternating images with clues and blocks (e.g., a barn to suggest the mystery object is a farm animal and the number 4 to suggest how many legs the mystery object has).
5. Starting from the top down, have children remove a block and look at the picture, a clue to the mystery object. One layer lower the child discovers another picture. This process of revealing clues allows the child to hypothesize while moving through the layers. Encourage children to make guesses at every layer. By the final clue, the child might be confident about knowing what the object is - a cow.
6. Encourage the children to talk about their first guess and their last guess and how new information helped to inform their answers.
**WHAT AM I THINKING OF?**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To evaluate information provided about a mystery item

**Learning Environment Set-up:**
- Small or large group
- Indoors or outdoors

**Materials:**
- Common objects or photos of things that relate to the content areas of the PKFCC, for example:
  - Animals
  - Food products
  - Household items
  - Natural objects from the local environment

*Note:* The game can be played using actual items or photos. Or you can simply have an item in mind. Prekindergarten children are likely to enjoy the game more if you have the real object available.

**How to Play:**
1. Select one item and, without revealing it to the children, provide a series of clues. For example:
   - It is something I use at the kitchen table.
   - It is something that needs to be washed after I use it.
   - It is something that holds liquid.
   - I use it when I drink something cold.
2. After each clue, invite the children to guess what the item is. Whether a guess is correct or not, ask the children:
   - Could it be anything else?
   - What makes you think that guess is correct?
3. After you have given all the clues and the children have made and explained their guesses, reveal the item.

**Variation:**
- Encourage the children to initiate this game with their peers and family members.
GUESS WHO? GUESS WHAT?

UPK Scheduling Recommendation: Group Time

Key Learning: To evaluate visual clues in order to make a prediction about who or what is in the mystery photo

Learning Environment Set-up:
- Small or large group
- Indoors

Materials:
- 8 x10 photos of people the children know: you, each other, community members or photos of places in the community or of familiar objects
- Each photo is mounted on bristol board and then cut into nine equal pieces (three rows vertically and three rows horizontally)

How to Play:
1. Before class starts, put a “Guess Who? Guess What?” poster on display. Post it with the pieces of the photo face-down except for one or two pieces.
2. Bring the children’s attention to the poster.
3. Invite the children to tell you who or what they think the photo will show. With each guess, the child must provide a reason. For example, a child might say, “I think the photo is Kayla because Kayla has brown, curly hair like in that piece of the picture.” You might challenge that observation by noting that Ali also has brown curly hair.
4. As the children make predictions, record each one on a three-columned chart with the column headings: Name, Prediction, Reason.
5. Every 20-30 minutes, reveal more pieces of the picture and encourage the children to make more predictions with their reasons. Record each one.
6. When only 2-3 pieces remain face-down, bring the children together. Review the predictions and reasons on the chart. Ask if anyone wants to change a prediction. If yes, record those changes.

7. Reveal the final pieces.

8. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Which predictions do you think were good predictions?
- b. What details in the picture did you look at when you made your prediction?

**Connect**
- c. How did you know to look at those details?
- d. Are there other times when you had to guess an answer based on clues?

**Apply**
- e. What could we do next time we play this game? How could we make sure that we make good predictions?
DRAWING CONCLUSIONS

UPK Scheduling Recommendation: Story Time/Group Time

Key Learning: To evaluate information in a story in order to predict the ending

Learning Environment Set-up:
- Large carpet area
- Big book easel
- Large or small group

Materials:
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

How to Do:
1. During a read-aloud, stop the story before it reaches its conclusion.
2. Tell the children they must come to a conclusion about the ending of the story and design an illustration to match. Remind them they will need to think about all the information that has been provided by the author and create an illustration that they think makes sense.
3. Reconvene the large group to share the various illustrations and related thoughts about the conclusions. Or post the illustrations around the room for children to examine.
4. Read the story ending to the children after they have had time to explore their own conclusions. Acknowledge similarities and differences between the author’s ending and the children’s endings. Avoid presenting any ending as right or wrong. Rather, present it as a reflection of information and possibilities that influenced the conclusion.
5. Ask the children questions like the following:
   - What information did the author and illustrator have that you did not have?
   - What information did the author and illustrator use to come to their conclusion? How was that different from the information you used?
   - What information from the story did you add to or change before making your conclusion?

Variation:
- Stop the story part way through and ask children to draw the illustration for the next page. In this learning experience they are drawing a conclusion about what comes next.
2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To evaluate alternatives presented to characters in a story

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Show the children that you have a book that you will read to anyone who is interested. Prompting and questioning during a shared reading experience allows children to evaluate events, characters’ actions and choices, without the need to focus on one “right” answer.

2. Stop at various points during a read-aloud and ask questions like the following:
   - What do you know?
   - What are the character’s choices/options?
   - What do you think about…? What makes you think that?
   - What do you think is happening? How do you know? What suggests to you that this is what is happening?
   - Can you think of any reasons why…?
   - What if…?
   - What do you think will happen? What makes you think that?
   - Can you think of any other outcomes…? Why do you think that might be possible?
   - Can you think of a similar situation/thing? What happened then? How could this turn out the same? How could this turn out differently?
   - If you were in that situation, what would you do?
   - What might the person/character have done differently? How would that change things?
3. Encourage the children to answer the questions from their own perspective and from the perspective of different characters in the story.

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To evaluate information in a story during a shared reading experience in order to make a prediction.

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Show the children that you have brought a book and tell them that you will read together. The ability to evaluate information, question, hypothesize and predict outcomes are central to the reading process. When sharing books during reading experiences, you can help children to develop those abilities.

2. Show the cover or an image from the book and ask the children to predict events, character reactions and outcomes. Ask questions like the following:
   - What do you think this book is about?
   - What do you think is happening in this scene?
   - What information are you using to come to this conclusion?
   - What do you see in the picture that tells you that is what is happening?
   - What would be important to know if you wanted to be sure that is what is happening? How would you get that information?

3. Prompt the children to predict by raising questions during the reading. You might ask:
   - What does the author mean by that? If the author’s definition is different (for example, broader or narrower) the message will be different.
   - Character A has not said anything. If s/he was talking, what else might we know?
- Character A just said... That speech doesn’t seem to match the situation or who the character is. Could there be another reason Character A said that?
- Character A just did... That action doesn’t seem to match the situation or who the character is. Could there be another reason Character A did that?
- If you were in this story and disagreed with Character A, what reasons would you give?

**Note:** Shared reading strategies like those above do the following:
- Help children to develop their abilities to ask questions and make predictions before and during reading.
- Encourage children to skim or re-read portions of a book (review evidence) to understand it better or to recall facts about the characters and events.
- Provide ways for children to monitor their understanding of the material.

**Variations:**
- Predicting involves more than trying to guess what happens next. As children find evidence to form and support hunches, they also ask questions, recall facts, reread, skim, infer, draw conclusions and, ultimately, comprehend the text more fully.
- The following shared reading variations all encourage prediction.

**Prediction Chart**
1. Write these headings on chart paper in the form of a T-Chart: PREDICTIONS and EVIDENCE.

<table>
<thead>
<tr>
<th>Predictions</th>
<th>Evidence</th>
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</table>

2. Explain to the children the importance of making predictions while reading and supporting those predictions with evidence. Tell the children that evidence could include the book’s illustrations, a specific passage and their own personal experience and knowledge.
3. Explore the title, cover and title page with the children. Collect predictions and evidence from students. For example, children might predict *Whistle for Willie* is about a boy who wanders the streets and whistles in order to find his lost dog Willie.

4. Stop once or twice during the reading and invite several children to predict again. Record responses on the T-chart.

5. Help students think about where the evidence came from for their predictions by asking questions like the following:
   - What made you say that?
   - What did you see or hear that made you think that?
   - Can you find an example from the text or pictures?"

6. After completing the book, return to the chart to confirm and adjust predictions. Write adjustments on the chart with a different colored marker. Model how rereading and scanning text and pictures helps readers to find evidence.

7. Compare and discuss early predictions about the story.

**Pre-Reading Picture Book Walk**

1. Before reading a book aloud, share with the children the cover illustrations and those inside.

2. Have children predict what the book is about.

3. Read the story (or chapter) aloud.

4. Review the children’s predictions with them.

**Storyboards**

Attach illustrations from a text to index cards or sheets of paper. Use the mounted illustrations in one or more of these ways:

- Invite children to create a storyboard by sequencing the cards showing the events in a story.
- Invite children to change the final picture or any critical event in the story and explain what might happen because of the change.
- Provide a storyboard with a missing picture, event or critical piece of information. Ask the children to find and use clues to identify the missing piece.

**Story Maps**

Select and sequence three illustrations from a story: one picture from the beginning, one from the middle and one from the end. Invite children to do one or more of the following:

- Examine parts of the story.
- Predict what happens if the middle event is replaced by a different one.
- Illustrate a new ending once the middle event has been altered.
**Who Is This?**

1. Show the children a picture of a person and ask:
   - What do you think the person is going to do?
   - How is the person feeling?
   - What is the person like?
   - Where is the person going?
2. Question the children's responses asking, “Why do you think so?” Encourage them to use clues, such as facial expressions, clothes, body language and surroundings.
3. Ask children for alternative predictions.
4. Record their responses, if desired.

**Movie Moments**

- Show the children a vignette or brief film or use a series of sequenced photographs.
- Stop part way through.
- Ask the children to make predictions on what will happen next.
- Have them explain the clues they used to make the prediction.

**What Would You Do?**

After reading a portion of a story, stop and ask the children to make predictions based on prior knowledge, not about the characters but about themselves. Ask:

- How would you feel in this situation?
- What would you do?

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**TRICK OR TRUTH**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To evaluate information given by the teacher about a mystery item

**Learning Environment Set-up:**

- Small group
- Indoors
- Carpeted area or table

**Materials:**

- Wooden juicer
- Metal garlic press
- Clear plastic hose
• Three opaque bags (ideal bags are soft nylon recyclable grocery bags that close at the top)

How to Play:
1. Put one item in each bag before coming to the group. Then bring the bag to the small group.
2. Explain to the children, “This game is called ‘Trick or Truth.’ This is how we play the game:
   ▪ First, I will say what is inside this bag.
   ▪ Next, you can touch the bag and ask questions to decide if I am tricking you or telling you the truth.
   ▪ Then, I am going to ask you, “Is this a trick or the truth?”
   ▪ Finally, I will ask you, “What helped you decide?”
3. Hand the bag containing the garlic press to one child in the group. Say, “In this bag is a grape squeezer. We use it to make grape juice. Each grape goes in the little box. Then, the top comes down and squeezes it until the juice comes out.”
4. Allow the children to take turns holding the bag, manipulating the item and asking questions. You may want to record their questions.
5. When the children have had enough time to draw their conclusions ask, “Is this a trick or the truth?”
6. Give each child a chance to answer. Encourage the children to elaborate on their reasons why they guessed what they did. To foster their ability to evaluate the information they gather accurately, ask questions like the following while you play:
   ▪ Does anything seem odd about what I have told you?
   ▪ Does this seem like something else you know about?
   ▪ How would that explanation make sense or not make sense?
7. Record the children’s comments. Encourage the group to listen respectfully to the comments of others.
8. Finally, reveal the item.
9. Continue with the next bagged item if the children are enthusiastic. Otherwise, wait for another time.
10. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Did you make correct guesses about trick or truth?
- b. Which items were hard to guess correctly? Why do you think they were hard?

**Connect**
- c. Can you think of a time when someone was playing a trick on you or telling you something that was not true? How was that similar to this game?
- d. Have you ever played a trick on someone? What did you do?

**Apply**
- e. How do you know when someone is playing a trick on you or telling you something that is not true?
- f. What could you do to find out the truth, when someone plays a trick on you?

**Variation:**
- Encourage the children to initiate this game with their peers. Provide bags and baskets of items that they can use.

**3 GS (GUESSES)**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To evaluate information in a picture

**Learning Environment Set-up:**
- Small group area

**Materials:**
- 3-ring binder
- 3-hole punch
- Collection of magazine images and/or photos of various objects (approximately 8 ½ X 11 in size)
How to Do:

1. Prepare pictures in the following way:
   - Put the image upside down into a 3-hole punch. Punch holes in each image.
   - Cut each image horizontally in three equal pieces.
   - Put each image into a three-ring binder. The image should be in the binder backwards so the image is not seen by children.

2. Show the children how to turn one piece of the image at a time. On each turn invite them to guess what the image is. With each guess ask the children to:
   - Explain the reasons for their guess.
   - Say whether they are:
     a. Not sure
     b. Pretty sure or
     c. Absolutely sure the guess is correct

3. Encourage the children to use clues from the pictures to explain their guesses. That selection involves evaluating the information available from the photos.

**EXPRESSING EMOTIONS**

**UPK Scheduling Recommendation:** All Centers Open

**Key Learning:** To evaluate visual clues to decide on how someone is feeling

**Learning Environment Set-up:**
- Small group area

**Materials:**
- A series of pictures of characters whose body language seems to be conveying a message

**How to Do:**

1. Present the pictures to the children one at a time.
2. Ask the children to look at each picture and use the picture to hypothesize:
   - How the character is feeling
   - What the character is thinking
   - What the character has decided or might decide to do next
3. Ask the children to make an informed guess, that is, one that is shaped by a consideration of the information available. In this case, to make an informed guess, the
children must look closely at the character’s eyes, face and body to determine what s/he is thinking and feeling.

4. Invite the children to explain their thinking.

5. If children want, they can record their ideas in a thought bubble with a word or a picture.

Variations:

- Have children use their predicting skills to develop the picture into a more elaborate “What happens next?” story.
- Have children act out the character’s next behavior. Or have them act out the next scene with other children.

Promoting Inclusion:

- English Language Learners: Use photos of real faces for emotions. The meaning will be clearer than with drawings.

WHAT ARE WE MAKING?

UPK Scheduling Recommendation: All Centers Open

Key Learning: To predict about how a collection of ingredients might be used

Learning Environment Set-up:

- Pairs
- Small or large group
- Indoors
- Table

Materials:

- Lemons: one for each child
- Honey: one tsp. for each child
- Water: one cup for each child
- (Adjust amounts to the size of the group. Children can mix their ingredients individually or together in a larger batch.)

How to Do:

1. Invite the children to look at the ingredients and think about what they might be making.

2. Record each child’s prediction and reasons for making that prediction. You could record on a chart with three columns: Name, Prediction, Reasons.
3. Each time they are about to add an ingredient, invite the children to predict what will happen to the mixture.
4. Show the children how to juice the lemon into a bowl.
5. Give them a teaspoon to measure the honey.
6. Have them stir the lemon and honey together with a fork or whisk.
7. Add the water and stir.
8. Ask the children what they think they have made.
9. Invite them to taste it.
10. Offer this experience with other food preparation. For example: granola, salad, muffins, cookies, scrambled eggs, sandwiches, French toast.

Note: Cooking experiences also teach children life skills, good nutrition and build a fundamental understanding of food and how it is prepared.

**UPSIDE DOWN PUZZLES**

**UPK Scheduling Recommendation:** All Centers Open

**Key Learning:** To evaluate information about a hidden image on a puzzle

**Learning Environment Set-up:**
- Individual
- Partners
- Indoors
- Table

**Materials:**
- Puzzles that the children have built previously
- A piece of clear Plexiglas big enough to build the puzzle on
- Thin board to fit over the back of the puzzle

**How to Play:**
1. Give to a child (or pair) the pieces of a familiar puzzle, upside down on a piece of Plexiglas.
2. Instruct the child not to turn the pieces right side up but to construct the puzzle just by the way the shapes fit together.
3. Once the child has completed the puzzle, have the child turn over one piece at a time.
4. Before each turn of a piece, have the child guess what picture the puzzle will show.
5. Ask the child to explain the reason for each guess. The child might answer: “It’s the puzzle of the fire truck because this piece shows a bit of the ladder on the truck.”

6. Encourage the child to try to guess correctly with the fewest number of pieces turned over.

7. When the child thinks s/he knows what picture the puzzle will show, place the board over the puzzle and flip the Plexiglas over. The children will be able to see the completed puzzle through the Plexiglas.

8. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. What puzzle did you put together?
- b. Was your prediction correct?
- c. How many pieces did you turn over before you guessed?

**Connect**
- d. What helped you to make your prediction? Is there something you know about that helped you make your guess?

**Apply**
- e. What could you do next time guess with fewer numbers of pieces turned over?

**Note:** This game encourages children to look very closely at the shapes of pieces. It provides an excellent opportunity for spatial development and for prediction based on previous knowledge.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.
SCENARIO

The classroom store is a very popular learning center in the classroom. As children bring items, the store worker packs the items in bags. The educator decides to extend the idea. She collects different sizes of cardboard boxes that can easily be used by the children for packing the bought items. In the large group she shows the children one of the packing boxes and asks, “How many items from our store will fit in the box?” The children give various estimates. The teacher puts four items in the box. The children say that she hasn’t added enough and that more boxes will fit in. She adds some more items. Again the children say that she hasn’t added enough and that she needs to add more to fill the box. She fills the box so there isn’t any space and the children agree that is how it should be done. Once full, she asks if anyone wants to change his/her estimate and why. Once this is done, she takes all the items out and they count together. She writes down the number on the chart paper. She also writes the question, “How many items will fit in the box?” She challenges the children to try the activity during learning center time with different packing boxes and to put their name and the number of items on the chart paper too.

At sharing time, following independent play at the center, the teacher reviews the list and asks children what they have discovered. They respond by saying: “If you put small things in, you can get a lot in there. But when it’s big, there’s not too much” and “You have to stand the cracker boxes up, not lay them down.”

The next day, the teacher presents the children with a different size box and asks again for their estimate. She proceeds to fill the box while counting and challenges children to try it at learning center time.

On another day, she presents the children with round cans and rectangular packages and asks how many they think will fit in the box and if they can get more cans in the box or more rectangular packages.

Notes

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
Critical Thinking Skill #6: Creating
(Create a new product or point of view)

Children are now able to synthesize all the information they have gathered and come to some final thoughts or product. Initially it is difficult to hold the information gathered from all the skills in their head but small steps will build these skills in critical thinking until they become second nature. By processing all the information they have gathered, children are able to create an original product that represents something new from the synthesis, or putting together, of those ideas.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Critical Thinking Skill #6: Creating in your classroom program.

You will find information on:

1. **Links to the Prekindergarten Foundation for the Common Core**
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. **Links to the Prekindergarten Foundation for the Common Core**

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific cluster, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>2b. Attempts multiple ways to solve a problem.</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2c. Experiments further his/her knowledge.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2d. Seeks additional clarity to further his/her knowledge.</td>
<td></td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Creativity and Imagination</td>
<td>3e. Seeks out connection, relations and assistance from peers and adults to complete a task.</td>
<td>10</td>
</tr>
<tr>
<td>Domain</td>
<td>Cluster</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Representing</td>
<td>4c. Uses visual media to represent an actual experience</td>
<td>18</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Vocabulary</td>
<td>6f. Initiates conversations about a book, situation, even or print in the environment</td>
<td>18</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Viewing</td>
<td>3c. Asks questions related to visual text and observations.</td>
<td>17</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geometry: Analyze, Compare</td>
<td>2. Create and build shapes from components (e.g., sticks and clay balls)</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>and Sort Objects</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Science: Scientific Thinking</td>
<td>1e. Asks &quot;why,&quot; &quot;how,&quot; and &quot;what if&quot; questions and seeks answers through experimentation and investigation.</td>
<td>28</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Social Studies: Geography</td>
<td>3e. Creates representations of topographical features in art work, and/or while playing with blocks, sand or other materials.</td>
<td>32</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Visual Arts</td>
<td>1b. Shows an interest in what can be created with tools, texture, color and technique.</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1c. Uses materials to build and create “pieces” that represent another item (blocks become a castle; clay becomes a snake).</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Music</td>
<td>3e. Creates sound using traditional instruments (bells, drums, recorders, etc.) and non-traditional instruments (tin cans, oatmeal boxes, containers filled with water).</td>
<td>34</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>The Arts: Dance/Creative</td>
<td>7d. Uses creative movement props such as crepe paper, streamers, hoops, and scarves to create special movements and dances.</td>
<td>35</td>
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<tr>
<td></td>
<td>Movement</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Technology: Foundations to</td>
<td>1c. Creates structures with various materials to determine which do/don’t work to achieve the desired purpose, (e.g. glue, tape, paper, cardboard, foam, plastic, wood, straws, spools).</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
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</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Critical Thinking Skill #6: Creating by:
   - Providing opportunities for choice/decision-making
   - Encouraging the sharing of ideas
   - Using non-judgmental questioning
   - Using open-ended questioning
   - Inviting sharing of opinions and related rationales
   - Providing opportunities for critique
   - Modeling respect for and curiosity about different viewpoints
   - Inviting sharing of opinions by children who may not spontaneously participate
   - Thinking aloud, particularly when making inferences and decisions (modeled by educator and encouraged for children)
   - Acknowledging when things have come to completion: for example, time, books, films, school day, consumable materials, and so on.

b. Fosters Critical Thinking Skill #6: Creating on an on-going basis by:
   - Creating a safe learning environment
   - Providing places for children to talk together
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and informal debates
   - Providing opportunities for children to share their new learning with others
   - Recognizing that disagreement and respectful conflict is valuable
   - Acknowledging when you don’t know something
   - Reassuring children that no one can know everything
   - Encouraging risk-taking
- Allowing time for reflection
- Avoiding judging children’s decisions
- Encouraging children to evaluate and reflect on choices afterwards
- Modeling decision-making strategies

c. Uses prompting/questioning to foster Critical Thinking Skill #6: Creating such as:
   - What could you make?
   - How would you make that? What would you use to make that?
   - Tell me about what you invented? What do you use it for?
   - How else could we use that? What could this be?
   - How could we plan for ___________?
   - How could we organize ___________?
   - How else could we finish this story?
   - Can you retell the story and change the ending?
   - Remind young children often that they have the option to say, “I don’t know,” or, “I’m not sure,” when responding to any questions or guessing games.
   - What can you create from the materials in the fabric box? What else would you add to make it more interesting?
   - What will you do differently next time? What worked really well that you are going to do again?
   - At the drama centre today you will see the props you might need to tell the story of Goldilocks and the Three Bears. You know that you can use props from anywhere else in the classroom if you have other ideas.
   - Following an interesting dramatic play scenario suggest: “Let’s write this story out so that others can read it.” I will write the words that are too hard and you can help me with some of the other words."

d. Uses materials (ongoing) such as:
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Materials presented from multiple viewpoints (visual or text)

e. Uses materials (specific) such as:
   - Open-ended materials which encourage children to ask themselves and each other what they might to do with the materials
   - Materials where isolated variables can be altered (for example, changing color or size) and where such a change may impact the outcome
- Books that include verbalizations of children’s thinking.
- Books/comics that show thought bubbles, such as *Do Not Open This Book!* by Michaela Muntean
- Books that show characters involved in decision-making, including those where characters have a difficult time making decisions, for example:
  - *Jeremy’s Decision* by Ardyth Brott
  - *Would You Rather* by John Burningham
  - *Charlene’s Choice* by Linda Sky Grossman
- Books that show positive and negative outcomes from decisions made by individual characters, for example:
  - *Franklin Forgets and Franklin Fibs* by Paulette Bourgeois
- Books that require a reader/viewer to make inferences, for example:
  - *The Two of Them* by Aliki
  - *If You Listen* by Charlotte Zolotow
  - *In the Woods: Who's Been Here?* by Lindsay Barrett George
  - *Around the Pond: Who’s Been Here?* by Lindsay Barrett George
- Games that build on the decisions of others, such as *Connect 4*, and *Tic-Tac-Toe*
- Thought bubble writing paper
- Thought bubble stickers/cut outs
- A chalk board or white board depicting a changeable image of a character with a blank thought bubble over his/her head. The children can draw or write thoughts that indicate the character’s decision-making.

### 3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children draw conclusions?
- Do the children, when questioned, relate their conclusions to available information or to prior knowledge/experiences?
- Do the children explain their conclusions?
- Do the children relate their conclusions to available information or to prior knowledge/experiences?
- Do the children identify information, pictures, and symbols as relevant or irrelevant in relation to their conclusions?
- Do the children question the conclusions of others when they have different information or experiences?
- Do the children recognize when they need more information before coming to a conclusion?
- Do the children describe what information is missing?
- Do the children recognize that there are times when, even without all the information, decisions have to be made and conclusions have to be drawn?
- Do the children change their conclusions when presented with new or conflicting information?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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</thead>
</table>
| English Language Learners | - Provide opportunities for children to make decisions between two choices. For example, when there is a spill at the water table, offer a towel and a sponge. Provide the appropriate labels and language for their decision.  
- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
- Learn some words in the child’s first language, if possible.  
- Provide time for children to form questions when engaged in shared reading experiences.  
- Provide information books that have simple text and big pictures  
- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators  
- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.  
- Acknowledge what the child is doing, such as saying, “You are digging in the sand.” |
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<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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<tbody>
<tr>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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<tr>
<td>Behavior</td>
<td>▪ Build decision-making skills, starting with decisions between two items or ideas before moving up to multiple choices.</td>
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<td>▪ Identify choices clearly with the child.</td>
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<td>▪ Provide time to make decisions.</td>
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<td>▪ Invite the child to talk through the process of making a decision.</td>
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<td>▪ Have children work in small groups to reduce pressure and inattention that can lead to poor choices.</td>
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<td>▪ Let the children know you believe in their ability to make good decisions.</td>
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<td></td>
<td>▪ If poor decisions are made, help individual children make a plan to rectify the situation.</td>
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<td>▪ Help children follow through from the beginning to the end.</td>
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<td></td>
<td>▪ Each success helps them to build confidence in their abilities.</td>
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<td></td>
<td>▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
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<td></td>
<td>▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
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<td></td>
<td>▪ Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<td></td>
<td>▪ Work in small groups so the child receives appropriate attention.</td>
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<td>▪ Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<td>▪ Make eye contact so they focus more closely.</td>
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<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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<td></td>
<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Witholding it should never be a punishment for poor behavior.</td>
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<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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<tr>
<td>Communication</td>
<td>- Speak clearly.</td>
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<td>- Use physical gestures to support what you are saying.</td>
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<td>- Point to items to connect words with items.</td>
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<tr>
<td></td>
<td>- Provide time for the child to form words/phrases.</td>
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<td></td>
<td>- Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
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<td>- Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
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<td></td>
<td>- Acknowledge the child’s gestures and spoken attempts.</td>
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<tr>
<td>Sensory</td>
<td>- Try hand over hand in exploration.</td>
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<td></td>
<td>- Encourage the child to touch the objects you are using to support comprehension.</td>
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<td>- Acknowledge the child’s efforts.</td>
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<td>- Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.</td>
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<td>- Provide an item for a child to hold for comfort.</td>
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<td>- Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.</td>
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<td>- Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.</td>
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<tr>
<td>Physical</td>
<td>- Assist children to be part of the learning experiences and games, such involvement helps other children see similarities in others rather than differences.</td>
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<td></td>
<td>- Use hand over hand to assist in exploration.</td>
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<td></td>
<td>- Provide a step in front of a chair to stabilize the child’s body in the chair.</td>
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<td>- Follow Occupational Therapy or Physical Therapy guidelines.</td>
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<td>- Pair the child with a physically able partner to assist in movement around the room.</td>
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<td></td>
<td>- Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
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<td></td>
<td>- Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
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</tbody>
</table>
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop **Critical Thinking Skill #6: Creating**.

Families can:

- Have children help you plan what should go in a bag if you are going out for the day, for example: wet wipes, snacks, tissues, extra clothes, bus tokens, sun screen, and so on.
- Develop emergency plans together as a family and ensure everyone knows what to do in case of a fire.
- Include children in opportunities to plan special events, such as the family dinner, a birthday party, weekend picnic, trip, and so on.
- Model how to ask for input from others when planning how to solve problems.
- Invite children to cook with you. Involve them in planning dinner and planning what needs to be purchased, finding a recipe and then following the recipe.
- Provide opportunities for children to create at home. Creating can occur with all sorts of materials and in all sorts of ways: drawing, painting, pictures, cards, posters, cooking, dress-up, telling stories, telling alternate endings, building, creating rules for games, etc.
- Ask your child to create something in response to a specific task/problem, for example “It’s a hot day today. What could we create to help us stay cool?”
- Ask your child to create something in order to improve an outcome or a situation, for example, “Last time I went outside I forgot to put on my hat. What could I create so that I don’t forget all the things I need to wear outside (on a hot or cold day)?”
- Ask your child to express their opinion or point of view on a situation or a topic, for example, “What do you think about taking the bus when we go somewhere?”
- Look at a familiar story book, but instead of reading it together ask the child to “re-write” the book by telling a changed story.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Critical Thinking Skill #6: Creating in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

**PICTURE SEQUENCE**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To create a picture sequence and story

**Learning Environment Set-up:**
- Individuals
- Partners or small groups
- Indoors

**Materials:**
- Sets of photos or illustrations of a series of episodes. Each set, when sequenced, tells a story.

**How to Do:**
1. Select a sequence of photos: for example, someone making and then eating a sandwich.
2. Tell the children to imagine that an author and illustrator were working on a book together and something happened so they weren’t able to finish it. They left behind the completed illustrations but no one could find the words to the story.

3. Invite the children to see if they can put these story pictures in order so that they make sense.

4. Tell them they will need to think critically.

5. Encourage them to share what they are doing while they work.

6. Encourage their awareness that what they are doing matches the critical thinking process by prompting with questions, such as, “What makes you think that guess is correct?”

AS IF

UPK Scheduling Recommendation: Group Time/Outdoor Play/Indoor Play

Key Learning: To create a story and to “act out” the story sequence

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Play:
1. Invite the children to find an open space in the play area and face you.
2. Explain and demonstrate that you will call out a sentence to the group. For example, “A bunny rabbit was hopping in the forest.”
3. Ask the children to move as if they were the bunny rabbit.
4. Allow the children to move around and then call “Freeze.”
5. Invite one child to add to the story by extending the idea. For example, s/he could build on the teacher’s first idea by adding, “A bunny rabbit was hopping in the forest. The bunny rabbit was scared.” Support the child to recall the story.
6. Allow the children to move around like a scared bunny rabbit and then call “Freeze.”
7. Invite another child to add to the situation. For example, s/he could build on the first two ideas by saying, “A bunny rabbit was hopping in the forest. The bunny rabbit was scared. A big bear came along.” Again, support the child to recall the story.
8. Continue this spoken narrative as long as the children have ideas to add to it. Encourage children to volunteer to contribute to the narrative. Challenge those
volunteers to repeat as much of the story as they can remember, but support them as needed.

9. If the children lose interest or the story becomes too long, you can begin a new one that encourages different ways of moving. For example:
   - A fish was swimming in the ocean.
   - A dog jumped in the puddles.

10. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
   a. What did you like about the game?
   b. What “story” did you like best? Or, what piece of the story did you like best?
   c. Was it easy or difficult to add to it?

**Connect**
   d. What is your favorite story?
   e. Have you ever pretended to be a character in your favorite story?
   f. Have you ever created your very own story/book? Your very own play?

**Apply**
   g. How could we share the story we created with other people?

**WHAT HAPPENED HERE?**

**UPK Scheduling Recommendation: Group Time**

**Key Learning:** To reconstruct a series of events in order to make decisions about what happened

**Learning Environment Set-up:**
   - Small group area

**Materials:**
   - Illustrations which depict a scene where a critical event has just happened. (For example, in the scene family members are standing in the kitchen. All of them are looking at the floor. There is spilled milk everywhere. An adult figure is holding an empty milk jug.)
How to Do:

1. Have the children look at the scene and decide what just happened.
2. Ask them to explain how they came to this conclusion.
3. Extend this learning experience by having the children imagine they are one of the characters in the scene. Encourage them to answer the question: What would you do?

Promoting Inclusion:

- *English Language Learners*: Use simple pictures. Invite children to describe either in English or in their first language. Provide English if the children describe in their first language.
- *Physical*: Provide clear pictures for the game.

2. Teacher-guided

**WRITE ON**

*UPK Scheduling Recommendation: All Centers Open*

Key Learning: To create an ending to a story shared in class or at home

Learning Environment Set-up:

- Writing center

Materials:

- Paper
- Drawing/writing tools

How to Do:

1. Children may wish to write a conclusion to a story. Encourage them to use inventive spelling and phonetic approximations when they write.
2. You can reinforce conventions often found in literature and give the child a sense of writing the last page of a book in this way. Fold the child’s paper in half. Leave the left side blank. Print, “The End” on the right side.
3. Give children the opportunity to read what they have written to others.
**IF I HAD A HAMMER...**

*UPK Schedule Recommendation: All Centers Open*

**Key Learning:** To create stories based on “what if?”

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Flipchart paper
- Drawing paper
- Drawing/writing tools

**How to Do:**
1. Write a story starter that begins with, "If I... ."
2. Invite the children to imagine what they would do “If.”
3. Use children's interests and books to get ideas for how to vary the “If” sentences, for example, “If I was going camping..." or “If I was lost in the woods... .”
4. Have the children dictate one or more sentences to complete the story starter.
5. Record the stories or allow a speaking and listening experience. Children may wish to illustrate their story.

**HOW CAN YOU MAKE...?**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To explore different ways of building and creating different things

**Learning Environment Set-up:**
- Individual or group work space

**Materials:**
- Grocery store flyers
- Double-sided counters
- 5x5 grids
- Images of a pizza, a sandwich, a tower, a house, a truck
How to Do:

1. Inform the children you have set out some materials in/on the group work space that can be used for building and creating. Tell them you were thinking about all the different ways they create sandwiches (or pizzas, numbers, buildings, and so on) and they might want to make one using their own creative skills.

2. Use one or more question completions like those listed below to present a challenge to the children.

   “With the materials available, how can you make…”:
   - A sandwich?
   - A pizza?
   - An 8?
   - A 12?
   - A truck?
   - A tower?

3. Encourage the children to use:
   - The grocery store flyers, toy food or their own artistic talents to create pizza
   - Double-sided counters, with or without a 5x5 grid, to construct representations of numbers
   - Construction materials, recyclables or found materials to build other objects

4. Invite the children to complete this task at various times, depending on their interest.

5. Set up the display table and invite the children to save their creations so that others can see what they have made.

   Note: It should become evident from the various constructions that when you ask different children how to do or make something, they will come up with very different answers/information.

6. Draw the children’s attention to the diversity of the responses. Suggest that the more people the children ask, the more possibilities they will find out about.

MAGIC BOX

UPK Scheduling Recommendation: All Centers Open

Key Learning: To create a use for a mystery item based on its shape/feel

Learning Environment:
   - Small group area
**Materials:**
- Box with a slot in the top that is big enough for a child to put their hand into.
- A number of unusually shaped items or unfamiliar items that can be used as the mystery items

**How to Do:**
1. Ask the children to sit in a semi-circle so that they can all see you
2. Show them the box (decorated if possible).
3. Explain and demonstrate that:
   - You will hide different items in the box.
   - You will invite one child at a time to put their hand in the box and to feel the mystery item. The child is NOT supposed to guess the item. Instead you want them to create a name and use for the item based on what they are feeling.
   - You can invite other children to create a name and use for the same item before revealing it to the group.
4. Make sure that every child has a chance to feel an object.
5. The game ends at your discretion.

**COLOR MIXING**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To create new colors by mixing primary colors

**Learning Environment Set-up:**
- Individual
- Pairs/small group
- Indoors

**Materials:**
- Beakers (or other transparent containers such as clear plastic drinking cups)
- Water
- Food coloring: blue, red and yellow
- Colored play dough: blue, red and yellow
How to Do:

1. Show the materials to the children. Ask them what they think they are going to do and why.
2. Explain that they will be mixing colors. Ask them what they think will happen with each different medium.
3. Start with water and food coloring:
   - Give each child two or three beakers for mixing.
   - Ask each child to choose one color. Assist them to mix a few drops into the water.
   - As a child chooses a second color for mixing, ask the child to predict what color will result.
4. Consider recording their predictions. Change mediums and ask the questions again. Record the results.
5. Continue this way until completed.
6. Ask the children about their observations. Ask:
   - What did you learn?
   - Would the mixed colors be different with paints or pastels or crayons?
7. Record their answers.
8. Plan with the children how to test their hypotheses.

TELLING MY STORY

UPK Scheduling Recommendation: Arrival/Greeting

Key Learning: To create a story about a personal experience

Learning Environment Set-up:
- Large group area
- Individual student space for “planning”

Materials:
- Paper
- Drawing/writing tools

Note: This learning experience is a good way to start a week. It helps the children share their weekend news in different ways. It develops literacy, storytelling, visual art, dance, drama, and so on depending on the different tasks the children decide to do.
How to Do:

1. Ask the children to gather on the carpet in a cozy group.
2. Tell them you are interested in hearing about something that they did over the weekend. It does not have to be a happy thing or something amazing, just something.
3. Tell the children they can tell their story any way they want. They can make up a song, or a dance, or build a structure, or paint a picture.
4. Send the children off to plan their stories. Try not to interfere.
5. Give the children a five-minute warning when it is getting near the time to share stories.
6. Have the children share their stories with the whole group or have each child share with a partner. Some children may want to just show their story.
7. Focus your observations on the plan, not the story itself or the sharing of the story. Observe the children for:
   - Cohesiveness in the story plan. Does it have a beginning, middle and end?
   - Ability to plan in the medium of choice.

Promoting Inclusion:

- *English Language Learners*: Invite families to provide photos of weekend events for children to discuss with the group.
- *Behavior*: Assist children in organizing their ideas and executing their story.
- *Physical*: Offer assistance and different materials.

Note: Some young children may alter information so that they can draw pictures of things they like to draw. Allow them this freedom and continue to encourage them to talk about why they drew the ending they did.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Critical Thinking skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.
As the class went for a walk in the fall to look for changes, they watched the leaves falling from the trees. They stopped to talk about what they were seeing and what they noticed about how the leaves traveled to the ground and tried to mimic the movements. The teacher reinforced and introduced new vocabulary. Leaves were collected and added to the science table for identification and observation. Leaves were placed at the painting center and children were invited to use them in their paintings or as a resource. After the experience, the teacher introduced a poem about falling leaves and once the children were familiar with the poem, introduced sticks and wood blocks for children to keep the beat while chanting the poem. In addition, children were invited to create movements based on the poem. (Leaves are falling all around, twirling, whirling, floating down …) After many experiences, the teacher asked a colleague to video the performance with some of the children saying the chant, with the musical accompaniment, and some children interpreting the movements. The children viewed their own performance and talked about what went well and how it could be altered.

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Problem-solving Step 1: Understand the Problem

Helping children understand a problem that they are facing is first step in the problem-solving process. This helps a child see that they can have control over problems and need not be dependent on others to resolve them which can build self-confidence.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Problem-solving Step #1: Understand the Problem in your classroom program.

You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

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<td>3e. Seeks out connections, relations and assistance from peers and adults to complete a task.</td>
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<td>Communications, Language &amp; Literacy</td>
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<td>3c. Asks questions related to visual text and observations.</td>
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<td>1. With prompting and support, asks and answers questions about detail(s) in a text.</td>
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<td>3. With prompting and support, asks and answers questions about characters and major events in a story.</td>
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<tr>
<td>Cognition and Knowledge of the World</td>
<td>Scientific Thinking</td>
<td>1e. Asks “why,” “how,” and “what if” questions and seeks answers through experimentation and investigation.</td>
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<td>Cognition and Knowledge of the World</td>
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<td>2b. Questions why and/or how people are similar/different.</td>
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### 2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Problem-solving Step 1: Understand the Problem by:

- Encouraging the sharing of ideas
- Using non-judgmental questioning
- Using open-ended questioning
- Inviting sharing of opinions and related rationales
- Providing opportunities for critique
- Modeling respect for and curiosity about different viewpoints
- Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
- Providing a classroom schedule that provides for integrated learning in large blocks of time
b. **Fosters Problem-solving Step 1: Understand the Problem on an on-going basis by:**
   - Creating a safe learning environment
   - Providing places for children to talk together
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and informal debates
   - Acknowledging the value of different perspectives and beliefs
   - Recognizing that disagreement and respectful conflict is valuable

c. **Uses questioning/prompting to foster Problem-solving Step 1: Understand the Problem such as:**
   - What do you know? What do you need to know?
   - What is the goal? What do you want to have happen?
   - What is stopping you?
   - What seems confusing? What doesn’t seem right?
   - Can you think of a similar situation/thing? What do they have in common? How are they different?

d. **Uses materials (ongoing) such as :**
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid educator-only books)
   - Open-ended materials that can be used for many purposes
   - Materials that support exploration and experimentation, blocks of various shapes, materials to mix, art materials to combine, building materials

e. **Uses materials (specific) such as:**
   - Books that show characters working through a problem
   - Books that show experiments with clearly articulated research questions. These should be simply stated: for example, “What happens when a tooth sits in soda pop?”
   - “How To” books that give the desired outcome at the beginning, for example, *How to Make a Bird Feeder*
   - Books with missing information, for example, a missing part to a picture
   - Recipe books with a picture of the food that will be made
   - Games that rely on the process of elimination such as *Guess Who?* or *Clue Jr.*
   - Games/materials that encourage classification-sorting
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children ask questions using who, what, how, why, when, where, what if?
- Do the children demonstrate awareness of connections between prior and new knowledge?
- Do the children ask questions related to a particular item, event or experience?
- Do the children identify relevant and irrelevant information, pictures, and symbols related to a familiar topic?
- Do the children identify a focal problem?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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</table>
| English Language Learners | - Use gestures and intonation when speaking about problems. This gives the children a clue, for example, the utterance of “Oh-Oh!” is somewhat international for a pending problem.  
- If possible, provide some nouns or verbs translated into their first language to help children determine what is happening.  
- Pair a more accomplished speaker with a new ELL.  
- Provide time for children to process information.  
- Avoid raising your voice or speaking too slowly.  
- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
- Learn some words in the child’s first language, if possible. |
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
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<tr>
<td>▪ Provide time for children to form questions when engaged in shared reading experiences.</td>
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<tr>
<td>▪ Provide information books that have simple text and big pictures</td>
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<tr>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<tr>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<tr>
<td>▪ Acknowledge what the child is doing, such as saying, “You are <strong>digging</strong> in the sand.”</td>
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<tr>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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</table>

**Behavior**

<p>| ▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed. |
| ▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute. |
| ▪ Ensure children know the rules to avoid misunderstanding and anxiety. |
| ▪ Work in small groups so the child receives appropriate attention. |
| ▪ Start with items that allow success early on to engage the child, and then move to more challenging items. |
| ▪ Make eye contact so they focus more closely. |
| ▪ Place the child in close physical proximity to you so you can help maintain the child’s focus. |
| ▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior. |
| ▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer. |
| ▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |</p>
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
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</table>
| **Communication**  | ▪ Explain in short segments the components of the different games and learning experiences.  
▪ Check in with the children to make sure they understand.  
▪ Do a trial run.  
▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child’s gestures and spoken attempts. |
| **Sensory**        | ▪ Try hand over hand in exploration.  
▪ Encourage the child to touch the objects you are using to support comprehension.  
▪ Acknowledge the child’s efforts.  
▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
▪ Provide an item for a child to hold for comfort.  
▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting. |
| **Physical**       | ▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
▪ Use hand over hand to assist in exploration.  
▪ Provide a step in front of a chair to stabilize the child’s body in the chair.  
▪ Follow Occupational Therapy or Physical Therapy guidelines.  
▪ Pair the child with a physically able partner to assist in movement around the room.  
▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead. |
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to practice **Problem-solving Step 1: Understand the Problem.**

Families can:

- Give your children an opportunity to try to understand and define the problem. We tend to want to rush in and do it ourselves.
- Respect and demonstrate curiosity about your children’s viewpoints.
- Talk about problems openly and let your children offer ideas.
- Work out fire escape routes with your children; place a picture of a fire in different spots in your home and encourage your child think about different exit routes.
- Create little problems for your children to solve:
  - Lay out a blue sock and white sock or a dress and trousers.
  - Pull out the snowsuit for going to the pool.
  - Ask your children to pour their cereal; then give them forks instead of spoons.
  - Acknowledge your children’s efforts to pinpoint problems.
  - Demonstrate an attitude of confidence that problems can be solved.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Problem-solving Step #1: Understand the Problem in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Additionally these learning experiences can be adapted to emphasize the other 3 steps in the problem-solving process by adjusting the key learning and your questions. Remember in this section that your objective is to helping students understand the problem.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

**OH-OH, THERE’S THE PROBLEM!**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To understand the problem in a variety of social scenarios

**Learning Environment Set-up:**
- Small group space (5-8 children)
- Floor or table

**Materials:**
- Problem scenarios (below)
- Pictures or items to help tell the scenarios (optional)

**How to Play:**
1. Tell the children they are going to be solving some pretend problems.
2. Tell them that you will read out a scenario. When they hear a part of the scenario that they think is a problem, they are to say, “Oh-oh, there’s the problem!”

3. Give the children practice by beginning with this situation:

   **Scenario 1**: Isabel wants to go ice skating at the rink in the park. She has put on her coat and scarf and mitts and her boots. Over her shoulder, she carries her roller blades. She picks up her friend Isaac to go skating with her.

4. Wait for a few moments to see if the children will tell you what the problem is. If the children are not sure, read the scenario again. Say they have to listen carefully. You could support this learning by showing the picture, if you made one.

5. Record the children’s responses on chart paper.

6. Repeat the above sequence with the scenarios provide below. The children may offer solutions, and they should not be discouraged. However, that is not the focus of this learning experience. The main issue is to understand the problem.

7. Hold a discussion using the RCA questions that follow the scenarios.

   **Scenario 2**: Jamaal invited his friends Sebastian and Becky to come over for lunch. His Granny has made them chicken noodle soup with crackers. Jamaal has set the table. He laid out three bowls, three cups, three forks and three napkins.

   **Scenario 3**: Jasmine was so happy when her Mom bought her a bike from Mr. Jones down the street. Her Mom said it was a special bike. The wheels were pink and square.

   **Scenario 4**: Kayla and Aneeta have decided to play with the blocks today. They want to build a very tall tower, like the building tower they saw downtown. Kayla takes the first ball off the shelf and Aneeta brings a tube and two balls. Kayla goes back for another ball.

   **Scenario 5**: Peter is getting dressed all by himself. He puts on his underwear, his pants and his shirt and puts matching red mittens on his feet. Peter thinks he looks just fine.

   **Scenario 6**: Maria and Janey’s class are going to the farm to pick cherries. The cherries grow on trees and their teacher, Mr. Alam, says they will have to climb ladders to pick the cherries. When the children get to the apple orchard, they climb up the ladders.
Scenario 7: Aziz has learned how to put his coat on all by himself. He is very proud and so is his Grandpa. Grandpa brings him home a new coat. It has a zipper on one side and buttons on the other.

Scenario 8: Chantal wants to make toast for her Mom. She learned to make toast in the summer. Now they are at Grandma’s house. Chantal asks if it is okay to make her Mom toast. Her Grandma says, “Yes” and gives Chantal a really nice pot.

Scenario 9: Tia wants a glass of milk and goes to the fridge to get it. When Tia pours the milk out of the carton, oranges fall into her glass.

Scenario 10: Devon and his Mom and Dad are at the grocery store. They have bought bread and milk and mangoes. Devon’s Dad takes out his wallet to pay the grocery lady. He gives her five buttons and two paperclips.

REFLECT-CONNECT-APPLY Discussion Questions:

Reflect
   a. Does everyone agree with the problem that was identified?
   b. Why do you think that is the problem?

Connect
   c. Do you remember a problem you have had?

Apply
   d. Are there clues to help us know when we have a problem? What can we look for? What can we listen for?
   e. In the future, how will we know when we have a problem?

Variation:
   - Challenge the children to come up with their own scenarios (although some children may find this learning experience easy to do). Write their scenarios on chart paper. Challenge other children in the room to identify the new problem.
Promoting Inclusion:

- **Behavior:** Introduce the game over a lunch or snack time or in a relaxed place outdoors. The game can be quite funny and lighthearted. Increase the challenge of identifying the problem as the children become more proficient.

---

**DRILL DOWN**

UPK Scheduling Recommendation: Group Time

**Key Learning:** To practice a strategy for understanding social problems in the classroom

**Learning Environment Set-up:**

- Large group area

**Materials:**

- Flipchart paper
- Markers

**How to Do:**

**Note:** Drill Down is a simple discussion technique for breaking complex problems down into progressively smaller parts. During a large or small group discussion about a problem, model the writing process that is aligned with this discussion technique.

1. Imagine a sample problem of social situation in the classroom. For example the children had a problem outdoors when some wanted to use the skipping ropes for skipping and another group of children wanted to use them as reins on pretend horses.

2. Start by writing the problem in the center of a sheet of chart paper. Then, write down the points that make up the different levels of detail. Place this information below the problem statement and a few inches inside the margins of the page (see diagram) to create an effect of an upside-down triangle. The points at this level could be:

   a. **Factors contributing to the problem**
      
      (For example, you would record that there were not enough skipping ropes, that no one wanted to wait, that children were frustrated, etc.)

   b. **Information relating to the problem**
      
      (For example, you would record that waiting is hard, both play experiences are valuable, this is a new situation, there is not a classroom process in place for who gets the skipping ropes first, etc.)
c. Questions raised by the problem

(For example, do we need more skipping ropes? What is required to get more? How long will that take? How will we get them? What can we do while we are waiting?, etc.)

3. This process of breaking the problem down into its component part is called “drilling down.” Eventually, the written record of the problem will give the appearance of an upside-down triangle or drill, narrowing the problem.

4. You should explicitly tell the children why it is called “drill down.” Show a drill or drill bit so the children can see the resemblance and better understand the metaphor.

5. The flipchart can be kept in the classroom as a visual reminder of the process.

6. Metaphors are important for problem-solving. They help children discover similarities among problems and, in turn, identify effective solutions.
2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To understand the problem(s) in a story explored during a shared reading experience

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**
1. Show the children that you have a book that you will read together. Prompting and questioning during a shared reading experience allows children opportunities to understand problems presented in stories, without the need to focus on one “right” answer.
2. Stop at various points during a read-aloud and ask questions like the following:
   - Who has a problem?
   - What is the problem?
   - What clues are you using to come to this conclusion?
3. During the read-aloud, ask the same questions listed above but based on the story text, rather than the images.

**CROSSING THE RIVER**

*UPK Scheduling Recommendation: Outdoor Play/Indoor Play*

**Key Learning:** To understand the problem in an outdoor play situation

**Learning Environment Set-up:**
- Outdoors
Materials:
- Items that can be used as a barrier in a child’s walking path

How to Do:
1. Construct a “barrier” between point A and point B. This barrier could be:
   - Physical: for example, a puddle, a large rock or a log
   - Imaginary: for example, a deep hole, a fire at an Exit door
2. Invite a child to position him/herself at point A. Identify point B and ask the child what the problem is in getting to point B.
3. Proceed with the subsequent steps in problem-solving until the child reaches a solution.
4. Keep in mind the focus of the game is on the child’s understanding the problem, not on the child solving it.

Variations:
- Vary the experience to include crossing the road, going to the gym, or any other situation that requires moving from point A to point B.
- Invite a child to look at a photo or picture that identifies point A and point B, with a barrier(s) between the points.

Promoting Inclusion:
- *English Language Learners*: Use pictures, for example, showing a picture of a log or fire to help the children understand what you are referring to.
- *Sensory*: Physically position an educator near the child to provide a “safe zone.”
- *Physical*: Ensure a barrier free space so a child can safely maneuver equipment.
MAPPING IT OUT

UPK Scheduling Recommendation: All Centers Open

Key Learning: To understand a problem that interferes with travel (on a map)

Learning Environment Set-up:
- Small group area

Materials:
- Simple maps of their town, school, race track, shopping mall, store, etc. prepared in advance. These should be hand drawn/made, not printed maps from the internet. Include pictures of stops they must make as part of an excursion through the location mapped. Indicate on the map one or more barriers that interfere with the likely pathway(s). (See image below.)

![Map Image](image_url)

How to Do:
1. Give children a map.
2. Ask each child to pretend to travel through the location, stopping at all required places. The child could use a toy person, a counter or a finger to trace the moves on the map. Observe the route the child traces.
3. When the child encounters a barrier (for example, an aisle in a store is closed for clean-up), ask, “What is the problem?” Focus the child on understanding the problem on the map.
4. Children may invent unrealistic ways to get around a barrier, such as, flying over it in their car. Allow these creative but impossible solutions.
Promoting Inclusion:
- Sensory: Use a child’s finger or hand to travel the route on the map.
- Physical: Use hand over hand.

5 WHYS

UPK Scheduling Recommendation: All Centers Open/Story Time

Key Learning: To understand the underlying problem in a social situation

Learning Environment Set-up:
- Small group area

Materials:
- None

Note: “5 Whys” is described in Critical Thinking Skill #2 also, but you can use it to help children learn to identify one or more underlying problems (that is, expose the layers) within a complex issue.

How to Do:
1. Whether reading a work of fiction or non-fiction, children can be challenged to play “5 Whys.” This strategy involves a series of “Why?” questions to probe more deeply into the information available from the text or from other sources.
2. For example, suppose a child in the story you are reading aloud is unhappy. Using “5 Whys,” go through the following steps to help identify underlying causes and problems:
   - Why is Child A unhappy?
     - Because he wasn’t allowed to go to the park with his friends.
   - Why wasn’t he allowed to go to the park with his friends?
     - Because his families didn’t think it was safe.
   - Why did his families think that was not safe?
     - Because he would be going without an adult.
   - Why would an adult not be going with him?
     - Because his families can’t go to the park right now.
   - or
   - Why is going to the park without an adult dangerous?
     - Because he could get injured and be alone.
   - Why can’t his families go to the park right now?
     - Because Grandma and Grandpa are arriving soon.
Why do children get injured at a park?
Because it is easy to fall from a climber or trip when you are running.

3. Learning experiences like “5 Whys” help children learn to understand problems and to appreciate the complexity of an issue.

Promoting Inclusion:

- Behavior: Build up to the questions. It is possible that you may lose the children’s interest in the story if there are too many interruptions. Gauge interest and act accordingly.

WHY DON’T THEY MATCH?

UPK Scheduling Recommendation: All Centers Open

Key Learning: To identify why two items in a pair do not match

Learning Environment Set-up:
- Small group area

Materials:
- A set of pictures that have “pairs” but the pairs don’t match in number. For example, in one picture of a pair, Child A has two strawberries; in the other picture, Child B has 10 (see illustration below).

How to Do:

1. Explain that the goal of the game is to make a match by working with numbers
2. Show a pair of pictures. Ask a child look at the pictures and try to articulate their understanding of the problem, that is, why the pictures do not match.
3. Model appropriate phrasing for identifying the problem: For example: “Child A has fewer strawberries; Child B has more.”

4. Next, encourage the children to identify the math required to make a match: for example, by adding more, taking some away, sharing evenly, and so on. In the case of the strawberry pair, the child should say, “I need to take some away” or “I need to add some.”

5. The child may work out the solution. However, the child’s focus initially should be on saying what doesn’t match, that is, on understanding the problem.

6. Use this game for math, fine arts (getting materials to attach to each other), science (getting a plant to grow) and social studies (getting a solution to a social problem that leaves all parties smiling).

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Problem-solving skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

SCENARIO

Benjamin and Elliot are sitting on the child-size picnic table and notice that it wobbles. They call the educator over. She says, “This is not very safe”. She involves the children in thinking about the problem. “What does it need to be safe?” The children aren’t sure so she says, “Look at it and see what you can find.” Benjamin, “I found the problem. A nail is not there. It needs to get some new nails.” Elliot, “Look, it needs to get more tightened here. It’s very wiggly and making the top wiggly.” She asks the children what should be done. They suggest putting a sign on it so others won’t sit there and to tell the caretaker. The educator agrees but also suggests moving the table out of the area.
Notes

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Problem-solving Step #2: Make a Plan

When we encourage children to make a plan for solving a problem we are encouraging the child to consider different possibilities as a means of determining the most effective solution.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Problem-solving Step #2: Make a Plan in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

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<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1. Actively and confidently engages in play as a means of exploration and learning.</td>
<td>10</td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Creativity and Imagination</td>
<td>3. Approaches tasks, activities and problems with creativity, imagination and/or willingness to try new experiences or activities. 3c. Experiments and seeks additional clarity to further his/her knowledge. 3e. Seeks out connections, relations and assistance from peers and adults to complete a task.</td>
<td>10</td>
</tr>
<tr>
<td>Physical Development and Health</td>
<td>Health and Well Being</td>
<td>8b. Talks about food choices in relationship to allergies and overall health.</td>
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</tr>
<tr>
<td>Domain</td>
<td>Cluster</td>
<td>Standards/Indicators</td>
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<tr>
<td>Social and Emotional Development</td>
<td>Self Concept and Self Awareness</td>
<td>1. Recognizes himself/herself as a unique individual having his/her own abilities, characteristics, feelings and interests.</td>
<td>15</td>
</tr>
<tr>
<td>Social and Emotional Development</td>
<td>Relationships with Others</td>
<td>5a. Seeks input from others about a problem.</td>
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<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Motivation</td>
<td>1b. Asks questions.</td>
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</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Background Knowledge</td>
<td>2a. Asks questions related to a particular item, event or experience. 2d. Makes comparisons to words and concepts already known.</td>
<td>17</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Viewing</td>
<td>3c. Asks questions related to visual text and observations.</td>
<td>17</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Reading Standards: Key Ideas and Details</td>
<td>1. With prompting and support, asks and answers questions about detail(s) in a text. 3. With prompting and support, asks and answers questions about characters and major events in a story.</td>
<td>19</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Scientific Thinking</td>
<td>1e. Asks &quot;why,&quot; &quot;how,&quot; and &quot;what if&quot; questions and seeks answers through experimentation and investigation.</td>
<td>28</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geography</td>
<td>2b. Questions why and/or how people are similar/different.</td>
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</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Career Development</td>
<td>8a. Asks questions about and shows an interest in the jobs of his/her family members and/or &quot;community helpers.&quot;</td>
<td>33</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Problem-solving Step 2: Make a Plan by:
   - Encouraging the sharing of ideas
   - Using non-judgmental questioning
   - Using open-ended questioning
   - Inviting sharing of opinions and related rationales
   - Providing opportunities for critique
   - Modeling respect for and curiosity about different viewpoints
   - Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
   - Providing a classroom schedule that provides for integrated learning in large blocks of time,

b. Fosters Problem-solving Step 2: Make a Plan on an on-going basis by:
   - Creating a safe learning environment
   - Providing places for children to talk together
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and informal debates
   - Acknowledging the value of different perspectives and beliefs
   - Recognizing that disagreement and respectful conflict is valuable
   - Allowing opportunities to repeat experiences multiple times

c. Uses questioning/prompting to foster Problem-solving Step 2: Make a Plan such as:
   - What do you know? What do you need to know? What are all the ways you could find that out?
   - What are your choices/options?
   - What can you see?
   - What do you hear?
   - How many ways?
   - What could you use?
   - Who could you ask?
   - Can you think of a similar situation/thing? What happened then? How could this turn out the same? How could this turn out differently?
Why do you think that might be work?
What do you think will happen? What makes you think that?
What could you do when...?
  ▪ Ask this question of children while they imagine they are facing a physical, cognitive, linguistic or social/emotional challenge. The challenge can range from being hungry, having a knot in a shoe lace, remembering a phone number, looking for a specific book at the library or supporting a friend whose pet has died. The children’s focus should be on making a plan.

What could you use to...?
  ▪ Ask this question of children as they build, create, fix and seek information. This question encourages children to explore the use of tools, both concrete and human.

Other variations of these questions include:
  ▪ Who could you ask...? (for help, for information)
  ▪ Who is this?
  ▪ Who might use this?
  ▪ How might you use this?
  ▪ Who might say this?
  ▪ What made that noise?

d. Uses materials (ongoing) such as:
  ▪ Resource/information books in different formats for different learners (language, picture, simple text, Braille)
  ▪ Books that are easily accessed (avoid educator-only books)
  ▪ Open-ended materials that can be used for many purposes
  ▪ Materials that support exploration and experimentation, blocks of various shapes, materials to mix, art materials to combine, building materials
  ▪ Costumes and dress-up clothes

e. Uses materials (specific) such as:
  ▪ Books that show characters working through a problem, for example:
    The Owl Who Was Afraid of the Dark by Jill Tomlinson
    Can’t You Sleep, Little Bear? by Martin Waddell
    Bear Feels Scared by Karma Wilson
    The Doorbell Rang by Pat Hutchins
    Is a Worry Worrying You? by Ferida Wolff
• “How To” books that give the reader choices
• Books with missing information such as a missing part to a picture
• Recipe books
• Games that rely on the process of elimination such as Guess Who? or Clue Jr.
• Games/materials that encourage classification/sorting
• Pattern blocks, puzzles-2D and 3D, tessellations
• Costumes and dress-up clothes

3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

• Do the children ask questions using who, what, how, why, when, where, what if?
• Do the children demonstrate awareness of connections between prior and new knowledge?
• Do the children ask questions related to a particular item, event or experience?
• Do the children identify relevant and irrelevant information, pictures, and symbols related to a familiar topic?
• Do the children generate and listen to various possibilities?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
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<tbody>
<tr>
<td>English Language Learners</td>
<td>• Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<td>• Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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<tr>
<td></td>
<td>▪ Learn some words in the child’s first language, if possible.</td>
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<td>▪ Provide time for children to form questions when engaged in shared reading experiences.</td>
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<td></td>
<td>▪ Provide information books that have simple text and big pictures</td>
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<td></td>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<td></td>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<td>▪ Acknowledge what the child is doing, such as saying, “You are <strong>digging</strong> in the sand.”</td>
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<td></td>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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<td>▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
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<td>▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
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<td></td>
<td>▪ Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<td></td>
<td>▪ Work in small groups so the child receives appropriate attention.</td>
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<td>▪ Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<td>▪ Make eye contact so they focus more closely.</td>
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<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
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<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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</tbody>
</table>
| **Communication**  | ▪ Explain in short segments the components of the different games or learning experiences.  
                      ▪ Check in with the child to make sure the child understands.  
                      ▪ Do a trial run.  
                      ▪ Be supportive of all efforts.  
                      ▪ Speak clearly.  
                      ▪ Use physical gestures to support what you are saying.  
                      ▪ Point to items to connect words with items.  
                      ▪ Provide time for the child to form words/phrases.  
                      ▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
                      ▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
                      ▪ Acknowledge the child’s gestures and spoken attempts. |
| **Sensory**        | ▪ Try hand over hand in exploration.  
                      ▪ Encourage the child to touch the objects you are using to support comprehension.  
                      ▪ Acknowledge the child’s efforts.  
                      ▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
                      ▪ Provide an item for a child to hold for comfort.  
                      ▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
                      ▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting. |
| **Physical**       | ▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
                      ▪ Use hand over hand to assist in exploration.  
                      ▪ Provide a step in front of a chair to stabilize the child’s body in the chair.  
                      ▪ Follow Occupational Therapy or Physical Therapy guidelines.  
                      ▪ Pair the child with a physically able partner to assist in movement around the room.  
                      ▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
                      ▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead. |
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to practice **Problem-solving Step 2: Make a Plan**.

Families can:

- Invite your children to talk about solutions to a problem that they are choosing, for example, “Why do you like that solution?”

- Toys accumulate at home and often many get pushed to the bottom of the closet or toy box. Resurrect some and ask how else your children could use that material. (If a toy no longer interests your children, donate it to a thrift shop for someone else to enjoy. By doing so, you help to remove clutter your home as well.)

- Play “What’s Inside?” with yogurt or margarine containers. This game can intrigue children while you are making dinner. Ask questions about the item’s qualities: for example, ask your children for their ideas about its weight, color, texture and use. Ask the children to justify their guesses.

- Invite children to cook with you. Involve them in planning dinner and planning what needs to be purchased, finding a recipe and then following the recipe.

- Play verbal games on trips by asking children to allow them to think through plans to small problems they may encounter, “What should you do if…” Present different situations, for example:
  - a. You are at a friend’s house and feel sick.
  - b. You lose sight of me at the grocery store.
  - c. You spill your cup of milk on the kitchen floor.

- Invite your children to generate several ideas for a Saturday outing. Then have them evaluate the ideas to help come to a solution. This process should involve a set of criteria that you have determined together. For example,
  - Expense: how much will it cost
  - Company: who else will go?
  - Time: how long will it take?
  - Interest: what might we learn?
  - Novelty: have we done it before?
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Problem-solving Step #2: Make a Plan in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Additionally these learning experiences can be adapted to emphasize the other 3 steps in the problem-solving process by adjusting the key learning and your questions. Remember in this section that your objective is to help students make a plan.

Recommendations have been offered to assist you in implementing the learning experiences into your daily schedule.

1. Teacher-initiated

**HOW CAN YOU HELP?**

UPK Scheduling Recommendation: Group Time

**Key Learning:** To make a plan to help solve a problem

**Learning Environment Set-up:**
- Small or large group space

**Materials:**
- Problem scenarios
- Pictures or items to help tell the scenarios (optional)

**How to Do:**
1. Read or present a scenario to a child or small group.
2. Then, ask the child, “How can you help?”
3. Scenarios can include:
   - Instances where it would be appropriate to be helpful to:
     - A family member, for example, finding quiet things to do while someone slept
     - Another child: for example, letting the child have some private time when the child seems not to want to talk
     - The environment, for example, recycling scrap paper, turning the taps off while brushing your teeth
     - Activities in the classroom: for example, tidying up materials when you are finished using them, watering the plants, and so on

Promoting Inclusion:
   - Behavior: Listen to children’s offerings and acknowledge them early on.

WHAT’S INSIDE?

UPK Scheduling Recommendation: Group Time

Key Learning: To make a plan to guess the mystery contents of a container

Learning Environment Set-up:
   - Small or large group space

Materials:
   - Six containers with lids (such as large yogurt containers) - each filled with a different material: for example, rice, pennies, cotton, rocks, shredded paper, water

How to Do:
1. Invite the children to try to determine what is in each container.
2. Observe first to see what strategies the children use spontaneously. Then encourage the children to make a plan about how they can come up with some logical guesses. You might have to support with questions or offer one or two ideas to encourage the initial thinking.
3. Once all participating children have discussed/offered their plans, provide children opportunity to carry out their plan before inviting children to guess what is in the canisters.
4. As children guess, assess the need to support their guessing with questions that encourage comparison of student’s plans or of the items in the containers.
Promoting Inclusion:
- Physical: Use hand over hand or have a friend shake the canister for the child, if necessary.

**HOW CAN WE USE THIS?**

*UPK Scheduling Recommendation: Story Time/Group Time*

**Key Learning:** To make a plan for using classroom play materials

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Classroom play material that the children have not been using often
- Flipchart paper
- Markers

**Note:** As an educator you may have observed that the children have not been using one of the play materials that are available in the room. You know this material is traditionally used for teacher-directed experiences, but you also know it can be valuable as open-ended building material. You think the children may have simply forgotten about it.

**How to Do:**

1. At the next group gathering time, stand up and walk to the shelf and bring the material over, for example, the Thousand Block Set. You want the children to see where it came from.
2. Place it in the middle of the group for all to see and ask, "What could we do with this?" Listen to children offer their ideas and record their responses on a flipchart page. Explain that the goal is to make the list as long as possible.
3. When the children run out of ideas, model a strategy for organized thinking about the possibilities. Suggest that the children begin to look around the room. Ask them to come up with more ideas based on different areas of the room and the kinds of play that typically occurs in each area.
4. This may expand the children’s suggestions for use of the blocks. For example, they may suggest using the ones cubes as little pieces of cheese and the tens cubes as celery sticks or other food in the kitchen space. Or they might suggest using the blocks as construction materials to load and move using the cranes and dump trucks.
5. Have the children explain their logic. Ask what gave them this new idea.
6. Tell the children that the material is now going back on the shelf. You will leave the list of ideas up for them in case they decide they want to use the blocks later in the day or in the days ahead.

**FIND YOUR COLOR**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To generate alternative plans in a game that respond to a teacher-identified problem

**Learning Environment Set-up:**
- Large group area (indoors or outdoors)

**Materials:**
- None

**How to Play:**
1. Ask the children to spread out in the play area and face you.
2. Tell the children that this game is about colors.
3. Tell the children that you are thinking of a color. Name the color. For example, "I am thinking of the color brown. I can't find anything brown. Do you see something brown?"
4. Ask the children to look around and to silently identify 2 things they see that are the color you are thinking of. Invite the children to look at the items they found and think of how they can run and touch both of their items and return to the circle as fast as possible.
5. Repeat the game with different colors.
6. End the game at your discretion.
7. Hold a discussion using the RCA questions that follow.
REFLECT-CONNECT-APPLY Discussion Questions:

Reflect
a. What was the problem?
b. Did you find things that other people found too?
c. Did we all find the same things?
d. Did we all have the same plan?

Connect
e. Do you think we all solve problems the same way?
f. Do we all make the same plans to solve problems?

Apply
g. What would you do differently the next time we play?
h. Would you change your plan?

Variation:
- Adjust the number of items that children have to find and touch, increasing from 2 to 3 to 4, etc.
- Provide a time limit for the children to carry out their plan, for example saying “Touch your two items and return to the circle before I count to 10.” This can have an impact on the plans students make.

2. Teacher-guided

SHARED READING

UPK Scheduling Recommendation: All Centers Open/Story Time

Key Learning: To consider the plans that characters make in a story

Learning Environment Set-up:
- Large carpet area
- Big book easel

Materials:
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Show the children that you have a book that you will read together. Prompting and questioning during a shared reading experience allows children opportunity to consider different solutions and plans that characters could make in relation to the story problems, without the need to focus on one “right” answer.

2. Stop at various points during a read-aloud and ask questions like the following:
   - What do you know? What do you still need to know? What are all the ways you could find that out?
   - What are the character’s choices/options?
   - What might you see?
   - What might you hear?
   - What could you/she/he do?
   - What could you/she/he use?
   - Who could you/she/he ask?

3. Encourage the children to answer the questions as if they were characters in the story.

**MAKE A MATCH**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To make a plan to combine objects together

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Two different sets of toys, for example, toy cars

**How to Do:**

1. Present children with each set of toys on a different piece of paper on the ground.
2. If using cars, tell the children to pretend that the paper is a garage.
3. Put five cars in Garage 1 and three cars in Garage 2. Ask the children to make a plan to match up the garages.
**Note:** In their problem-solving, do not restrict the children to using the same materials that they see in the pictures. Encourage them to think about all the ways they could make a match, even those that involve accessing other resources or information.

**Variation:**
- Using the set of pictures from “Why Don’t They Match?” (described in Problem-solving Step 1), invite children to generate ideas about how they can make a match. Encourage the children to work both ways (add and subtract) to solve this challenge; that is, “add” some to the image with less to make more, or “take” some from image that has more to make less.

**ARE THERE ENOUGH?**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To make a plan to determine if items in sets are equally matched (are there enough?)

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Sets of classroom objects/toys, for example, people and coats, dogs and leashes (use genuine articles, not worksheets). The number of items in each set may be more or less (see illustration).
How to Do:

1. This is a one-to-one correspondence game.
2. Present children with two sets of objects.
3. Ask the children, “Are there enough?” Once they give their answer, ask them, “How can you find out?” “What is your plan to show me?”
4. This game can be made more challenging by using objects that come in multiples, for example, people and pairs of shoes, children and boxes of eight crayons.
5. Ask the children to talk about their thinking and how they could plan to find out.
   Finding out is likely to involve physically pairing up the items to see if there is one-to-one correspondence.

Promoting Inclusion:

- English Language Learners: Include items that are culturally familiar.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Problem-solving skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

SCENARIO

Kayla and Miranda talk together and each select a Three Pigs puzzle of 18-24 connected pieces with Three Pigs pictures. They sit side-by-side. Kayla takes all of the pieces of the Three Pigs puzzle out and lines them up on the floor. She pulls all the feet out, then the bodies, then the heads. Once these are lined up, she puts all the heads in first, then the bodies, and so on. She asks Miranda which pieces she should fit in next. Miranda responds, indicating which ones should be next.

Miranda dumps out all of the pieces of her puzzle, picks a piece and tries to fit it in various places until she finds the right spot. When she can’t find a place, she selects another one. Kayla completes her puzzle then says, “Let me help you.”
She takes some pieces and fits them into place while Miranda continues to try pieces in various locations.

Julian and Quinn select the transportation puzzle of 15 pictures of vehicles with knobs. They dump it out on the floor and individually take pieces and fit them into place. They choose a piece and pop it into the correct spot without hesitation. They smile when finished and Quinn says “Hey we did it!” Julian says “Let’s do it again and do it faster.” They do the same puzzle again very quickly and repeat four more times.

Aza has chosen an alphabet puzzle of 26 letter pieces with knobs. First, he chooses the 'e' piece and tries it in four different places before finding the right spot. He continues to try the pieces in more than one location before putting them in. Liam comes to watch. Aza stops and puts his hands around the pieces. He takes his hands away when Liam just sits and watches. He talks to Liam. “Have a 'q' and a ‘u’ left. Hey, that’s a ‘w’ for washroom.” Liam points to the ‘l’ and says, “Here’s the ‘l’, that’s just like listening.” Aza takes the ‘l’ piece and puts it in.

Notes

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Problem-solving Step 3: Carry out the Plan

Once a child makes a plan to solve a problem they can carry out the plan.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Problem-solving Step #3: Carry out the Plan in your classroom program.

You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

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<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>2d. Engages with peers and adults to solve problems.</td>
<td>10</td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Persistence</td>
<td>5a. Maintains focus on a task.</td>
<td>11</td>
</tr>
<tr>
<td>Physical Development and Health</td>
<td>Physical Development</td>
<td>2. Uses sensory information to plan and carry out movements.</td>
<td>12</td>
</tr>
<tr>
<td>Social and Emotional Development</td>
<td>Self Concept and Self Awareness</td>
<td>1g. Displays accomplishment, contentment, and acknowledgement when completing a task or solving a problem by himself/herself (e.g., wants to show a peer or adult).</td>
<td>15</td>
</tr>
<tr>
<td>Social and Emotional Development</td>
<td>Self-Regulation</td>
<td>2. Regulates his/her responses to needs, feelings and events.</td>
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</tr>
<tr>
<td>Domain</td>
<td>Cluster</td>
<td>Standards/Indicators</td>
<td>Page</td>
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</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Responding to Literature</td>
<td>11. Creates and presents a poem, dramatization, art work, or personal response to a particular author or theme studied in class, with prompting and support as needed.</td>
<td>23</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Counting and Cardinality</td>
<td>Counts to tell the number of objects.</td>
<td>24</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Measurement and Data</td>
<td>2. Sorts objects into categories; counts the numbers of objects in each category (limits category counts to be less than or equal to 10).</td>
<td>27</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geometry</td>
<td>2. Creates and builds shapes from components (e.g., sticks and clay balls).</td>
<td>27</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Scientific Thinking</td>
<td>3. Generates explanations and communicates conclusions regarding experiments and explorations.</td>
<td>28</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Geography</td>
<td>3e. Creates representations of topographical features in art work, and/or while playing with blocks, sand or other materials.</td>
<td>32</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Visual Arts</td>
<td>1. Expresses oneself and represents what he/she knows, thinks, believes and feels through visual arts.</td>
<td>34</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Music</td>
<td>3. Expresses oneself by engaging in musical activities.</td>
<td>34</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Theatre/Dramatic Play</td>
<td>5. Participates in a variety of dramatic play activities to represent fantasy and real life experiences.</td>
<td>35</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Dance/Creative Movement</td>
<td>7. Expresses what he/she knows, thinks, feels and believes through dance and creative movement.</td>
<td>35</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Foundations to Technology</td>
<td>2e. Invents and/or constructs simple objects or structures using common tools and materials in a safe manner (e.g., wood, glue, rulers, sandpaper, hammer, etc.).</td>
<td>37</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Using Technology</td>
<td>5a. Uses computer to write, draw and explore concepts.</td>
<td>38</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Problem-solving

Step 3: Carry out the Plan by:

- Encouraging the sharing of ideas
- Using non-judgmental questioning
- Using open-ended questioning
- Inviting sharing of opinions and related rationales
- Providing opportunities for critique
- Modeling respect for and curiosity about different viewpoints
- Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
- Providing a classroom schedule that provides for integrated learning in large blocks of time
- Creating and referring to a graphic organizer that outlines a three-step process to a goal:
  - Reflect-Connect-Apply
  - Beginning, middle and end
  - Plan, do, review
  - Before, during, after
- Building in routines that signal conclusions: for example, warnings that a transition time is coming, a process for where to put creations when they are finished, including moving a painting to the drying rack, a gathering at the end of the day, and so on, that require children to carry out plans.

b. Fosters Problem-solving Step 3: Carry out the Plan on an on-going basis by:

- Creating a safe learning environment
- Providing places for children to talk together where they won’t disturb others with their play
- Valuing children’s opinions and questions
- Listening to the children’s discussion
- Provoking, suggesting or prompting
- Encouraging discussions and informal debates
- Acknowledging the value of different perspectives and beliefs
- Acknowledging and value diversity of choices
- Acknowledging that all things do not go as planned
- Encouraging multiple attempts
- Providing verbal encouragement
- Acknowledging that learning can be a difficult process

c. Uses questioning/promoting to foster Problem-solving Step 3: Carry out the Plan such as:

- What did you decide to do?
- What do you want to have happen?
- Did you get the help or information you need to do what you’ve chosen?
- What stage/step are you at now?
- Who will you have working on this with you?
- What is working?
- What doesn’t seem to be going as planned?

d. Uses materials (ongoing) such as:

- Resource/information books in different formats for different learners (language, picture, simple text, Braille)
- Books that are easily accessed
- Open-ended materials that can be used for many purposes
- Materials that support exploration and experimentation, blocks of various shapes, materials to mix, art materials to combine, building materials

e. Uses materials (specific) such as:

- Books that show characters working through a problem and coming to a conclusion
- “How To” books that break down the process step by step, including some with decision-making or options built into the middle stages of the process
- Books without a conclusion. This feature must be explicitly pointed out to the children and some form of follow-up should occur, for example, a discussion about the impact on the reader of not knowing the ending, or the generation of possible endings
- Games that have a clear conclusion. (A clear conclusion does not necessarily mean the game needs a winner: many children’s games are cooperative.)
- Games/materials that encourage sequences of classification/sorting and exhaustive classification/sorting
- Books that have characters explicitly stating the conclusion or summarizing in some way at the end such as:

  Harry, Willy and Carrothead by Judith Caseley
3. Observation, Documentation, Assessment

Use anecdotal observations/records to document evidence related to the following questions:

- Do the children identify a focal problem?
- Do the children identify the process for solving the problem?
- Do the children complete a process for coming to a completion or conclusion?
- Do the children describe the process while they are working towards a solution?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Learners</td>
<td>- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<tr>
<td></td>
<td>- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<tr>
<td></td>
<td>- Learn some words in the child’s first language, if possible.</td>
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<tr>
<td></td>
<td>- Provide time for children to form questions when engaged in shared reading experiences.</td>
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<tr>
<td></td>
<td>- Provide information books that have simple text and big pictures</td>
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<td></td>
<td>- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<tr>
<td></td>
<td>- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<td></td>
<td>- Acknowledge what the child is doing, such as saying, “You are digging in the sand.”</td>
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<tr>
<td></td>
<td>- Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
</tr>
<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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</tbody>
</table>
| **Behavior**       | ▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.  
▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.  
▪ Ensure children know the rules to avoid misunderstanding and anxiety.  
▪ Work in small groups so the child receives appropriate attention.  
▪ Start with items that allow success early on to engage the child, and then move to more challenging items.  
▪ Make eye contact so they focus more closely.  
▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.  
▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.  
▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.  
▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |
| **Communication**   | ▪ Explain in short segments the way to play during each of the different games.  
▪ Check in with the children to make sure they understand.  
▪ Do a trial run.  
▪ Be supportive of all efforts.  
▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child’s gestures and spoken attempts. |
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
</table>
| **Sensory**        | ▪ Reduce the number of children to limit noise and stimulation.  
                     ▪ Acknowledge that some surfaces may be too upsetting for some children; touching grass or rolling on a mat may be very uncomfortable for some. Offer an alternative experience, but don’t push for participation.  
                     ▪ Try hand over hand in exploration.  
                     ▪ Build a labyrinth outdoors and walk it together.  
                     ▪ Encourage the child to touch the objects you are using to support comprehension.  
                     ▪ Acknowledge the child’s efforts.  
                     ▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
                     ▪ Provide an item for a child to hold for comfort.  
                     ▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
                     ▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting. |
| **Physical**       | ▪ Ensure the obstacle course can accommodate all the children’s needs.  
                     ▪ Build a labyrinth outdoors and walk it together.  
                     ▪ Have children work in small groups or pairs to complete a learning experience, for example, someone push a wheelchair, guide a walker, print or draw together.  
                     ▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
                     ▪ Use hand over hand to assist in exploration.  
                     ▪ Provide a step in front of a chair to stabilize the child’s body in the chair.  
                     ▪ Follow Occupational Therapy or Physical Therapy guidelines.  
                     ▪ Pair the child with a physically able partner to assist in movement around the room.  
                     ▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
                     ▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead. |
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to practice **Problem-solving Step 3: Carry out the Plan**.

Families can:

- Invite your children to talk about how they will carry out their plan and when.
- Play games that focus on process rather than winning and that involve a series of decisions to implement along the way. For example, “Checkers,” “Connect Four” and “Xs & Os” have multiple ways to reach the end. Talk about other ways while you play.
- Help your children to consider many different ways to construct something by encouraging them to build with different kinds of blocks or other materials.
- Cooking with your children allows you to carry out plans together. Once you and your children know how something is made, you can have fun together deciding how to change the ingredients and/or the method.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Problem-solving Step #3: Carry out the Plan in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Additionally these learning experiences can be adapted to emphasize the other 3 steps in the problem-solving process by adjusting the key learning and your questions. Remember in this section that your objective is to help students carry out their plans.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

RELAY WRITE

UPK Scheduling Recommendation: Group Time

**Key Learning:** To carry out a plan in a group story-telling exercise

**Learning Environment Set-up:**
- Small group gathering area

**Materials:**
- Flipchart paper and markers

**How to Do:**
1. Gather the children together as a group. Tell them they have been invited to create a story together.
2. Tell them that as a group you need to come up with a plan to write the story together and then we are going to carry out the plan
3. Remind them that this is a collaborative process. It requires everyone to work together.
4. Solicit ideas from children about how to approach this, listening to their ideas carefully.
5. Thank all children for their ideas. Explain that you will choose one and carry out the plan with the children. Explain that on another occasion you will all work together to carry out another a different plan that was offered.
6. Choose one plan that and work with the children to carry out this plan.
7. Give the first child the task of starting the story. The child can be encouraged to use a script such as, “Once upon a time…” Or, to reinforce problem-solving, s/he could start with, “….has a problem. The problem is…”
8. Ask each child to provide 1-3 sentences.
9. Encourage the children to listen to what has gone before and to add sentences that make sense.
10. Record the story on flipchart paper. It can be published at a later time. The children may choose to create illustrations to go with their part.

Variations:
- This experience can be changed into writing, with each child providing one or two sentences. The writing should be purposeful, for example, a letter to families, a set of directions for other children, and so on. The writing task should naturally emerge from your observations. You can scribe or the children can use pictures to record the story.
- Give the children a sequence of parts. Each child completes his/her part before passing the writing along to the next child. The child who goes first should be reminded that s/he is beginning the writing. When the writing arrives at the last child, s/he should be reminded that s/he is writing the conclusion.

Promoting Inclusion:
- Communication: Restate what a child is trying to say. Pair child with an educator or friend.

GOING TO A FRIEND’S

UPK Scheduling Recommendation: Outdoor Play

Key Learning: To carry out a plan in a game situation

Learning Environment Set-up:
- Outdoor play area
Materials:
- Hula hoops or chalk to draw circles on the ground (1 per child)
- Various objects to act as barriers between the circles (e.g., pylons, chairs, large blocks, etc.)

How to Play:
1. Scatter 1 hula hoop for each child on the ground (or use chalk to draw circles). Be sure that the circles are spread out from each other.
2. Place the various objects between the different circles (see diagram) to act as barriers as they move from one circle to another.
3. Ask each child to stand inside 1 of the circles (see diagram).
4. Tell the children that the circle represents their home in this game.
5. Explain and demonstrate that:
   - Each child will have the chance to be a Traveler.
   - You will start the game by calling one child’s name and a house for the child to travel to. For example, “Syra, hop to Abdul’s house.” Syra will then hop to Abdul’s house.
   - On the way the children will encounter different barriers to their movement. Tell the children that they will have to make and carry out a plan to get past the barrier and arrive at their friend’s house. Observe the children and what solutions they implement to get around these barriers to reach the goal of the new circle.
   - When the Traveler arrives at their new circle, they must shake the hand of the person in the circle and take their place in the hoop. For example, Syra would shake Abdul’s hand and Abdul will become the Traveler.
6. Pick a new house for each Traveler to visit.
7. Make sure that each child has a chance to visit at least 1-2 houses.
8. End the game at your discretion.
9. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Was it easy or difficult to get to your friend’s home?
- b. What made it easy or difficult?
- c. What was the problem in travelling to your friend's home in this game?
- d. How did you get around the barriers?

**Connect**
- e. Do you like to visit your friends? Why?
- f. Have you had to make a plan and carry it out before?

**Apply**
- g. Can you think of different ways to get around the barriers?
- h. What could you do if you were in this situation again?
- i. How would you plan to get to your friend’s house?
- j. Who could help you carry out the plan?

**Variation:**
- Change the action that each child uses to get to a new house (for example, “Taro, march to Franko’s house,” “Mohammad, run to Jamie's house,” and so on).

**Promoting Inclusion:**
- **English Language Learners:** Demonstrate the actions required to move through the obstacle course accompanied by the English words.
- **Behavior:** Provide cues for movement to ensure children know what they need to know to play the games.
- **Sensory:** Physically position an educator near the child.
- **Physical:** Use language that includes children who “roll” or “push” as ways of moving.
2. Teacher-guided

**SHARED READING**

UPK Scheduling Recommendation: All Centers Open/Story Time

**Key Learning:** To consider the plans carried out by characters in a story

**Learning Environment Set-up:**
- Large carpet area
- Big book easel

**Materials:**
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Let the children know that you have a book that you could read together. Prompting and questioning during a shared reading experience allows children to consider the plans carried out by characters in a story.

2. You can support awareness of carrying out plans by prompting/questioning in the following way:
   - What did the character decide to do?
   - What was the character’s goal? What did the character want to have happen?
   - Who was working with the character?
   - What steps did the character take?
   - What seemed to be working?
   - What didn’t seem to be going as planned?
   - How did it end?

**LET’S GET TRAVELLING**

UPK Scheduling Recommendation: Outdoor Play

**Key Learning:** To carry out a plan in a game situation

**Learning Environment Set-up:**
- Outdoor play area
Materials:
- Various materials such as chairs, pylons, large blocks, etc. that can be used to create the obstacle course and serve as barriers.

How to Play:
1. Create an obstacle course for the children to move through in an outdoor play area. As you create the obstacle course consider that there is:
   - Sufficient space to allow children to move through in different manners (e.g., walking, hopping, galloping)
   - Barriers that require children to move over, under, around and through them.
   **Note:** The focus is on the children moving through each of the barriers at each stage to the finish line. It is not a race.

2. To begin the game, ask the children to form a line at the start of the obstacle course.

3. Invite the children to begin walking through the obstacle course, being careful not to bump into each other. Monitor the children at the beginning to ensure that there is a good amount of time between each.

4. After each child completes the course, comment on their performance, focusing on completion and the plans they carried out to get around the different barriers.

5. Invite children to complete the obstacle course multiple times, each time moving through it in a different way. You will demonstrate each new way to move before you ask them to move this way. For example:
- Marching – raising knees as high as they can go while keeping arms swinging and straight
- Galloping – moving forward, stepping on the front foot and bringing the rear foot forward but not past the front foot
- Skipping – alternating hopping on one foot and then the other

6. Again, after each child completes the course, comment on their performance, focusing on completion and the plans they carried out to get around the different barriers.

7. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. Was it easy or difficult to get through the obstacle course?
- b. Which part was the easiest for you?
- c. Which part was the most difficult for you?
- d. Did you make a plan? Did your plan work?

**Connect**
- e. How did you get around the problems you faced? Have you had problems like this before?

**Apply**
- f. If you went through the obstacle course again, would you do anything differently? Would you use the same plan or different? Why?
- g. What could you do differently to get around the barriers (more quickly, more slowly)?

**Promoting Inclusion:**

- **English Language Learners:** Demonstrate the actions required to move through the obstacle course accompanied by the English words.
- **Behavior:** Provide cues for movement to ensure children know what they need to know to play the games.
- **Sensory:** Physically position an educator near the child.
- **Physical:** Ensure the course can be navigated by children with mobility challenges.
3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Problem-solving skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**SCENARIO**

Four boys are playing in the sandpit in the playground during outdoor play. They have shovels and toy cars. David begins to dig a hole and the others are drawn to help him. They squat with their heads bent over the sand. The sand flies as they all gather round, digging to make the hole deeper. David says, “That’s enough.” Ryan continues. David shouts “No more!” He makes a car noise in the sand then pushes the car into the hole, making a crashing sound. Each boy follows suit. David says, “OK, take them out.” They proceed to do it again with accompanying sounds. Eli says “Let's make it bigger.” They begin to dig again.

The teacher shares with the children that they are going to be doing some planting in the classroom. She tells them she is collecting large plastic pots for the planting and asks children to contribute so there would be enough. Then she asks, “If everyone needs a pot, how many pots will we need?” The children aren’t sure so she asks, “How might we find out?” She listens to their various ideas – one child suggests counting the name cards, another counting everybody in the class, someone says everyone needs to get in line for the count. She chooses three children to find the answer and they try the three methods suggested. One of the counts varies because the child forgets to count herself and someone asks if the adults are going to plant too because then there will be more.

The educator invites two children to help her make a number line to keep track of the count. She suggests that when children bring in a pot they can add it to the number line and then they will know when they have the right amount of pots. Checking the number of pots became on entry activity for the next three days.

She tells the children that everyone will get two beans to plant in their pot and she wants to be sure that she has enough beans for everyone. She asks them, “How many beans will we need if everyone gets two beans?” She invites some
There are various ideas of how to solve the problem. One child puts two counters in each pot and then counts them up. One child stands in front of the pots and just counts one, two, three, four all the way along. One child, who likes to draw, starts to draw the pots and puts two beans in. The one sheet of paper is not enough so more is added. Another gets the name cards as have been done for counting the pots but isn’t sure what to do after that. One child says it is too hard and loses interest.
Problem-solving Step 4: Look back at the Solution

Children don’t always remember or follow their original plan. But whenever they engage in action to complete a task, they are implementing solutions.

When children look back at their solutions, they must do an evaluation that considers not only the final outcome but the complete process as well. This means we want children to be able to break down their solution into parts and see what has gone before determines what happens next. Every attempted solution should be monitored to see if it is working.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Problem-solving Step #4: Look back at the Solution in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

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<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>Approaches to Learning</td>
<td>Engagement</td>
<td>1e. Uses “trial and error” method to figure out a task, problem, etc.</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1f. Demonstrates awareness of connections between prior and new knowledge.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>2d. Engages with peers and adults to solve problems.</td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Cluster</td>
<td>Standards/Indicators</td>
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<tr>
<td>Approaches to Learning</td>
<td>Curiosity and Initiative</td>
<td>4b. Expresses an interest in learning about and discussing a growing range of ideas.</td>
<td>11</td>
</tr>
<tr>
<td>Approaches to Learning</td>
<td>Persistence</td>
<td>5a. Maintains focus on a task. 5c. Modifies strategies used to complete a task.</td>
<td>11</td>
</tr>
<tr>
<td>Social and Emotional</td>
<td>Self Concept and Self Awareness</td>
<td>1g. Displays accomplishment, contentment, and acknowledgement when completing a task or solving a problem by himself/herself (e.g., wants to show a peer or adult).</td>
<td>15</td>
</tr>
<tr>
<td>Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Emotional</td>
<td>Self-Regulation</td>
<td>2. Regulates his/her responses to needs, feelings and events. 2c. Demonstrates an ability to independently modify own behavior in different situations.</td>
<td>15</td>
</tr>
<tr>
<td>Development</td>
<td>Relationships with Others</td>
<td>5a. Seeks input from others about a problem.</td>
<td>16</td>
</tr>
<tr>
<td>Social and Emotional</td>
<td>Adaptability</td>
<td>7c. Adjusts behavior as appropriate for different settings and/or events.</td>
<td>16</td>
</tr>
<tr>
<td>Development</td>
<td>Operations and Algebraic Thinking</td>
<td>2. Duplicate and extend (e.g., what comes next?) simple patterns using concrete objects.</td>
<td>26</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Scientific Thinking</td>
<td>3. Generates explanations and communicates conclusions regarding experiments and explorations.</td>
<td>28</td>
</tr>
<tr>
<td>Cognition and Knowledge of the World</td>
<td>Visual Arts</td>
<td>1. Expresses oneself and represents what he/she knows, thinks, believes and feels through visual arts.</td>
<td>34</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Problem-solving Step 4: Look back at the Solution by:
   - Encouraging the sharing of ideas
   - Using non-judgmental questioning
   - Using open-ended questioning
   - Inviting sharing of opinions and related rationales
   - Providing opportunities for critique
   - Modeling respect for and curiosity about different viewpoints
   - Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
   - Providing a classroom schedule that provides for integrated learning in large blocks of time
   - Providing a classroom schedule that provides for time to review and evaluate both process and outcome
   - Creating and referring to a graphic organizer that outlines a three-step process to a goal:
     - Beginning, middle and end
     - Reflect-Connect-Apply
     - Plan, do, review
     - Before, during, after
   - Building in routines that involve formative evaluations or checkpoints at various times
   - Building in routines that involve evaluation. Those routines can focus on group or individual process and outcomes. Success at following the rules of the classroom can be reviewed at either a group or an individual level
   - Using observation data to prompt evaluation of challenging aspects of the process

b. Fosters Problem-solving Step 4: Look back at the Solution on an on-going basis by:
   - Creating a safe learning environment
   - Providing places for children to talk together
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Provoking, suggesting or prompting
   - Encouraging discussions and informal debates
• Acknowledging the value of different perspectives and beliefs
• Acknowledging and valuing diversity of choices
• Acknowledging that all things do not go as planned
• Encouraging multiple attempts
• Providing verbal encouragement
• Acknowledging that learning can be a difficult process
• Valuing learning from mistakes or missteps
• Encouraging and modeling think-aloud during the process of problem-solving
• Making it known that your requests for explanations will accompany both correct and incorrect responses from children and that both are important for learning

c. Uses questioning/prompting to Foster Problem-solving Step 4: Look back at the Solution such as:
  • What did you decide to do?
  • What is the goal? What do you want to have happen?
  • Did you get the help or information you need to do what you’ve chosen?
  • What stage/step are you at now?
  • Who will you have working on this with you?
  • What is working?
  • What doesn’t seem to be going as planned?
  • What changes to your plan are/were necessary? Why?
  • How would you do it differently next time?

d. Uses materials (ongoing) such as:
  • Resource/information books in different formats for different learners (language, picture, simple text, Braille)
  • Books that are easily accessed (avoid educator-only books)
  • Books that provide detail on process and when one event has implications for or leads to a future event such as:
    Franklin Forgets by Paulette Bourgeois
  • Open-ended materials that can be used for many purposes
  • Materials that support exploration and experimentation, blocks of various shapes, materials to mix, art materials to combine, building materials
e. **Uses materials (specific) such as:**

- Books that show characters working through a problem and coming to a conclusion:
  - *The Secret Shortcut* by Mark Teague
  - *The Great Gracie Chase* by Cynthia Rylant
  - *Pigsty* by Mark Teague
- “How To” books that break down the process step by step, including some with decision-making or options built into the middle stages of the process
- Books without a conclusion. This feature must be explicitly pointed out to the children with some form of follow-up, for example, a discussion about the impact on the reader of not knowing the ending or the generation of possible endings is critical
- Books that have characters explicitly stating the conclusion or summarizing in some way at the end such as:
  - *Harry, Willy and Carrothead* by Judith Caseley
- Books where characters engage in self-talk and evaluation of their progress, for example:
  - *The Subway Mouse* by Barbara Reid
  - *A Quiet Place* by Douglas Wood
- Books where characters make mistakes and then return to try and fix them, for example:
  - *Franklin’s Library Book* by Paulette Bourgeois
- Games that have a clear conclusion. (A clear conclusion does not necessarily mean the game needs a winner. Many children’s games are cooperative.)
- Games/materials that encourage sequences of classification/sorting and exhaustive classification/sorting

**3. Observation, Documentation, Assessment**

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children identify a goal?
- Do the children identify the planned process for solving the problem?
- Do the children complete a process for coming to a completion or conclusion?
• Do the children describe the process while they are working towards a solution? Do the children identify the stage/step they are at during the process?
• Do the children identify what is working and what doesn’t seem to be going as planned?
• Do the children identify necessary changes to their plan, both during and after the process? Do they explain the need for such changes?
• Do the children identify what they have learned and how they could do it differently next time?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
</table>
| English Language Learners | • Use first language counting or encourage the children to do so.  
|                       | • After the children have seen other children do a learning experience, ask them to try to play the game using their first language as well as English.  
|                       | • Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
|                       | • Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
|                       | • Pair children with a child who is bilingual or able to be helpful with both languages.  
|                       | • Learn some words in the child's first language, if possible.  
|                       | • Provide time for children to form questions when engaged in shared reading experiences.  
|                       | • Provide information books that have simple text and big pictures  
|                       | • Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators |
### INCLUSION CRITERIA

<table>
<thead>
<tr>
<th>TEACHING SUGGESTIONS</th>
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</thead>
<tbody>
<tr>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
</tr>
<tr>
<td>▪ Acknowledge what the child is doing, such as saying, “You are <strong>digging</strong> in the sand.”</td>
</tr>
<tr>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
</tr>
</tbody>
</table>

### Behavior

| ▪ Demonstrate how to play the different games. |
| ▪ Offer trial runs to practice what to do to build confidence. |
| ▪ Focus on the process and not winning. |
| ▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed. |
| ▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute. |
| ▪ Ensure children know the rules to avoid misunderstanding and anxiety. |
| ▪ Work in small groups so the child receives appropriate attention. |
| ▪ Start with items that allow success early on to engage the child, and then move to more challenging items. |
| ▪ Make eye contact so they focus more closely. |
| ▪ Place the child in close physical proximity to you so you can help maintain the child’s focus. |
| ▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior. |
| ▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer. |
| ▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |

### Communication

<p>| ▪ Explain in short segments the aspects of the different games. |
| ▪ Check in with the children to make sure they understand. |
| ▪ Do a trial run of games or learning experiences. |
| ▪ Be supportive of all efforts. |
| ▪ Provide and protect time for children to make responses. |
| ▪ Speak clearly. |</p>
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Use physical gestures to support what you are saying.</td>
</tr>
<tr>
<td></td>
<td>• Point to items to connect words with items.</td>
</tr>
<tr>
<td></td>
<td>• Provide time for the child to form words/phrases.</td>
</tr>
<tr>
<td></td>
<td>• Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
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<tr>
<td></td>
<td>• Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
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<tr>
<td></td>
<td>• Acknowledge the child’s gestures and spoken attempts.</td>
</tr>
</tbody>
</table>

**Sensory**

- Physically position an educator near the child during seat games.
- Try hand over hand in exploration.
- Encourage the child to touch the objects you are using to support comprehension.
- Acknowledge the child’s efforts.
- Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.
- Provide an item for a child to hold for comfort.
- Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.
- Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.

**Physical**

- Ensure safe seating.
- Have room at a table for apparatus.
- Use larger versions of materials for easier manipulation or for seeing.
- Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.
- Use hand over hand to assist in exploration.
- Provide a step in front of a chair to stabilize the child’s body in the chair.
- Follow Occupational Therapy or Physical Therapy guidelines.
- Pair the child with a physically able partner to assist in movement around the room.
- Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.
- Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.
5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to practice **Problem-solving Step 4: Look back at the Solution**. Families will need to be informed of how to play any learning experiences and games that are recommended below.

Families can:

- Have open conversations that are not judgmental about the solutions a child implemented and the result.
- Focus on your children’s evaluation, rather than your own.
- Support decisions that children make, whenever possible, and encourage them to reassess in the future.
- Focus on unexpected obstacles that come up for children and how they might be accommodated without too much stress.
- Demonstrate a positive attitude towards change and conflict.
- Play counting games like, “Counting On.”
- Provide scenarios like those in “Circling Back”: for example, going to the grocery store and forgetting your wallet.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Problem-solving Step #4: Look back at the Solution in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Additionally these learning experiences can be adapted to emphasize the other 3 steps in the problem-solving process by adjusting the key learning and your questions. Remember in this section that your objective is to help students look back at their solutions.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

COUNTING ON

UPK Scheduling Recommendation: Group Time

Key Learning: To consider sequence number sets (to show how solutions are impacted by sequence of steps)

Learning Environment Set-up:
- Small group gathering area

Materials:
- Counters or magnets that can be displayed for all to see, magnetic board

How to Do:
1. Gather the children together as a small group.
2. Tell them they have been invited to play a counting game. Initially introduce the game as a "counting by two game".
3. Have the children collect two counters or magnets.
4. Ask a child to go first. The child has to count his/her magnets and stick them in a row on the magnetic board.
5. Model the next step by adding your counters and counting on: “3, 4.”
6. Invite the next child to continue the sequence. Children will see how what has gone before determines what happens next.

Variations:
- Start the sequence by choosing any number of counters and having the children add their two to your set. This way, you can start at two or one (where they would see the series 1, 3, 5, 7…) or any other number of your choice.
- Have children choose different numbers of counters to add to the board. Not everyone has to choose the same, although that can be helpful for pattern recognition.
- Start the game with a large number of counters and have children subtract or take counters away.

Promoting Inclusion:
- Sensory: Provide materials that are comfortable to touch.
- Physical: Use larger versions of materials for easier manipulation or for seeing.

**DRAWING WITH DETAIL**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To contribute to a collaborative drawing that demonstrates how parts make up a whole.

**Learning Environment Set-up:**
- Group gathering area with flipchart display

**Materials:**
- Flipchart paper and various colored markers
- A set of picture cards with different parts of the body and/or pieces of clothing

**How to Do:**
1. Prepare a drawing on a flipchart page, for example, an outline of a person.
2. Randomly give each child a card.
3. Have the children take turns coming to the flipchart and re-creating the information on their card on the larger flipchart drawing. That is, a child with a picture of a pair of sneakers would come up and draw the sneakers on the outline of the person being collaboratively created by the group. This shows the children that the picture cannot be complete without collecting information relevant to each stage of the drawing process.

Variation:

- Enable children to have more input into what they draw by providing only the item, for example, shoes and leaving the design of the shoes up to the child. In this setting, children can talk about what seems to make sense together and what seems unusual now that they have the final product in sight.

2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To consider a solution presented in a story

**Learning Environment Set-up:**

- Large carpet area
- Big book easel
Materials:
- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children's eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

How to Do:
1. Show the children that you have brought a book and tell them that you will read together. Prompting and questioning during a shared reading experience allows children to review and evaluate solutions in the story, to consider the process as well as the final outcome.
2. Support the children's process of looking back on a solution by prompting/questioning as follows:
   - What was his/her the goal? What did s/he want to have happen?
   - What did s/he decide to do?
   - Did it happen the way s/he planned?
   - Who did s/he have helping?
   - What steps did s/he take?
   - What seems to be working?
   - What doesn't seem to be going as planned?
   - What changes to his/her plan are/were necessary? Why?
   - How did it end?
   - How would s/he do it differently next time?

Note: In instances of review and evaluation, keep an ear open for responses that help determine if limited success in achieving a goal is:
   - A performance issue: that is, the child has the skills to succeed but did not, or...
   - A knowledge/skills issue: that is, the child must first acquire some underlying knowledge or skill before being able to successfully complete the task

CIRCLING BACK

UPK Scheduling Recommendation: All Centers Open/Outdoor Play/Indoor Play

Key Learning: To re-evaluate a chosen path when presented with new information

Learning Environment Set-up:
- Small group area, indoors/outdoors

Materials:
- Specific to the teacher’s choice of “path”
How to Do:

1. Play this game inside or outside. The action of this game can take place:
   - Physically on a pathway, track or game board
   - On a conceptual level requiring a “think again”

2. Give the child directions to perform a task. Once the child is part way through the task, stop him/her and add additional requirements, for example:
   - You suddenly tell a child that one of the characters in a dramatic role-play is a toddler who is just learning to talk. That change will require a change in terms of character dialogue and behavior.
   - A child playing in a store gets to the cash only to find out from you that there is a sale (or that the sale has ended). That information impacts his/her purchase decision.

3. The child then has to rethink or re-evaluate his or her path, make a hasty but necessary change and then use the revised path to complete the task. This process is like realizing, just as you get to the grocery store check-out, that you forgot something and have to go back to the appropriate aisle.

Promoting Inclusion:

- **English Language Learners**: Use physical props to help explain the obstacles that have arisen.

3. **Child-initiated**

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Problem-solving skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**SCENARIO**

At the water table, three children are busily putting different objects in the water and floating small plastic boats. Jami notices that the small seashells and rocks at the water table don’t float, but sink to the bottom. He begins to fill up the
boat with rocks to make it sink. Jean says, “Look you made it sink to the bottom. Put the shells in it to make it sink. Try the big one first.” The educator observes the children exploring and experimenting, listens to their language, and notices their problem-solving and social interaction.

Later that week, the educator introduces new materials to the water table that might challenge the children’s thinking about what sinks and floats. During shared writing, she poses a challenge for the center – How can you make the rocks float? She shows the materials and demonstrates vocabulary for English Language Learners. She plans some time to observe and also plans to take some photos. At sharing time, she invites some children to share what they tried. She knows that some of the English Language Learners will not be able to describe what they did, so she encourages them to bring the materials they used and show what they did.
Language & Literacy Skill #1:
Vocabulary..........................................................220

Language & Literacy Skill #2:
Print Concepts ..........................................................238

Language & Literacy Skill #3:
Phonological Awareness........................................255

Language & Literacy Skill #4:
Phonics and Word Recognition...............................272

Language & Literacy Skill #5:
Fluency..................................................................292
Language & Literacy Skill #1: Vocabulary

Children naturally explore language to communicate thinking and build vocabulary. They use that vocabulary to describe personal experiences, talk about their thinking, to reflect, and to solve problems. Whenever children interact with others there is the potential for vocabulary building. Children learn approximately 8-10 words a day. With repeated exposure to a word, their understanding of the word and the concept deepens, allowing them to use language for a variety of purposes. Children with a large bank of words to draw on to express themselves will find it easier when they encounter these words in their reading or use them in their writing.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Language & Literacy Skill #1: Vocabulary in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Vocabulary</td>
<td>5. Demonstrates a growing receptive vocabulary.</td>
<td>18</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Vocabulary</td>
<td>5a. Understands and follows spoken directions.</td>
<td>18</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Vocabulary</td>
<td>5b. Identifies pictures related to words (show me the white dog).</td>
<td>18</td>
</tr>
</tbody>
</table>
### Domain | Cluster | Standards/Indicators | Page
---|---|---|---
Communications, Language & Literacy | Vocabulary | 5c. Responds/reacts to questions/comments indicating he understands meaning (e.g., body language, gestures, facial expressions, and words). | 18
Communications, Language & Literacy | Vocabulary | 5d. Identifies meanings of words used in read-aloud, in conversation and in descriptions of everyday items in the world around him. | 18
Communications, Language & Literacy | Vocabulary | 6. Demonstrates a growing expressive vocabulary. | 18
Communications, Language & Literacy | Vocabulary | 6a. Uses facial expressions, body language, gestures, and sign language to engage in reciprocal conversation. | 18
Communications, Language & Literacy | Vocabulary | 6b. Uses more complex words in conversation. | 18
Communications, Language & Literacy | Vocabulary | 6c. Makes use of new and rare words introduced by adults or peers. | 18
Communications, Language & Literacy | Vocabulary | 6d. Correctly names picture when asked, “What is this?” | 18
Communications, Language & Literacy | Vocabulary | 6e. Begins to use appropriate volume and speed so spoken message is understood. | 18
Communications, Language & Literacy | Vocabulary | 6f. Initiates conversations about a book, situation, event or print in the environment. | 18

## 2. Educator’s Role

### a. Uses on-going teaching and learning strategies to support Language & Literacy Skill #1: Vocabulary by:

- Encouraging the sharing of ideas throughout the classroom
- Engaging in frequent and sustained conversations with children
- Using non-judgmental questioning
- Using open-ended questioning, accepting divergent responses
• Inviting sharing of opinions and related rationales
• Providing opportunities for critique
• Modeling respect for and curiosity about different viewpoints
• Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
• Providing a program that offers authentic opportunities for children to read and write, speak and listen, view and represent
• Providing a classroom schedule that provides for integrated learning in large blocks of time
• Encouraging children to share their thinking with each other at all learning centers
• Modeling curiosity about words
• Repeat and extend students responses
• Valuing meaning making and understanding
• Inviting children to make choices about the books they read and the experiences they participate in

b. Fosters Language & Literacy Skill #1: Vocabulary on an on-going basis by:
• Creating a safe learning environment
• Valuing children’s opinions and questions
• Listening to the children’s discussion
• Participating in discussions with children
• Provoking, suggesting or prompting
• Encouraging discussions and informal debates
• Acknowledging the value of different perspectives and beliefs
• Encouraging multiple attempts/repetition
• Providing verbal encouragement
• Acknowledging that learning can be a difficult process
• Acknowledging that we are all language learners
• Encouraging word play
• Modeling the use of new and interesting vocabulary
• Teaching new words in context
• Reading aloud every day
c. **Uses questioning/prompting to foster Language & Literacy Skill #1: Vocabulary such as:**
   - What does that mean?
   - What else could that mean?
   - Where did you hear that word?
   - What is another way of saying that?
   - Do you know a word that means almost the same thing?
   - Do you know a word that sounds the same?
   - How could you find out what that means?
   - Can you guess what that means from the rest of the sentence?
   - Can you guess what that means from the other cues (pictures, nonverbal communication, etc.)?

d. **Uses materials (ongoing) such as:**
   - A range of reading materials (levels, genres) including brochures, magazines, menus, recipes
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid targeting some books that only the teacher can read)
   - Open-ended materials that can be used for many purposes
   - Picture dictionaries

e. **Uses materials (specific) such as:**
   - Books with descriptive illustrations
   - Books in a range of genres
   - Charts that are made with the assistance of the children
   - Repetitive books, predictable books
   - Books with headings
   - Books with index, glossary, table of contents
   - Books with key words highlighted
   - Books that use word play
   - Word Wall(s) within the room
   - Books with interesting vocabulary
   - Books about words
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Are children increasing the range of words they use?
- Do the children identify new words?
- Are they interested in learning new words?
- Do the children incorporate the new word in their conversations/play?
- Do the children say things about the new word which demonstrates they understand what it means?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. Educators can apply and adapt the strategies below to meet the needs of students in each of the Language & Literacy learning experiences and games that follow.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
</table>
| **English Language Learners** | - During shared reading, repeat new words that describe the illustrations in the books using a gesture to point out the illustration.  
- Acknowledge a first language word that a child offers and then tell the word in English.  
- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.  
- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.  
- Learn some words in the child’s first language, if possible.  
- Provide time for children to form questions when engaged in shared reading experiences.  
- Provide information books that have simple text and big pictures |
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<td></td>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<td>▪ Acknowledge what the child is doing, such as saying, “You are digging in the sand.”</td>
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<td></td>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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<tr>
<td>Behavior</td>
<td>▪ Give children time to explore the illustrations in a book.</td>
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<td></td>
<td>▪ Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
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<td></td>
<td>▪ Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
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<td></td>
<td>▪ Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<td></td>
<td>▪ Work in small groups so the child receives appropriate attention.</td>
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<td></td>
<td>▪ Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<td></td>
<td>▪ Make eye contact so they focus more closely.</td>
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<td></td>
<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
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<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<td></td>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
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<tr>
<td>Communication</td>
<td>▪ To increase vocabulary, provide spoken words, picture symbols and Sign language to describe the illustrations in the books.</td>
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<tr>
<td></td>
<td>▪ Repeat key words clearly.</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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<tr>
<td></td>
<td>Give children time as they make an attempt to utter their words.</td>
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<td></td>
<td>Speak clearly.</td>
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<td>Use physical gestures to support what you are saying.</td>
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<td></td>
<td>Point to items to connect words with items.</td>
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<td></td>
<td>Provide time for the child to form words/phrases.</td>
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<td></td>
<td>Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
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<td></td>
<td>Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
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<td></td>
<td>Acknowledge the child’s gestures and spoken attempts.</td>
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<tr>
<td>Sensory</td>
<td>Give children an opportunity to ‘feel’ book illustrations with their hands, touching the images.</td>
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<td></td>
<td>Allow children to point to the illustrations in the book as they take time to understand the text.</td>
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<td></td>
<td>Try hand over hand in exploration.</td>
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<td></td>
<td>Encourage the child to touch the objects you are using to support comprehension.</td>
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<td></td>
<td>Acknowledge the child’s efforts.</td>
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<td>Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.</td>
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<td></td>
<td>Provide an item for a child to hold for comfort.</td>
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<td>Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.</td>
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<td>Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.</td>
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<tr>
<td>Physical</td>
<td>Make room at the reading area for children with special apparatus.</td>
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<td></td>
<td>Check with family to be sure you can take a child out of a wheelchair for some learning experiences and hold them in your lap or use a floor corner chair with supports.</td>
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<td></td>
<td>Use a piece of music instead of an illustration for building a child’s vocabulary of descriptive words, for example, “Starry, Starry Night” by Rob McLean which is about Vincent Van Gogh’s painting. “Peter and the Wolf” is an excellent piece of music, where different instruments indicate different characters.</td>
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<td>Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.</td>
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<td></td>
<td>Use hand over hand to assist in exploration.</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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<td></td>
<td>• Provide a step in front of a chair to stabilize the child’s body in the chair.</td>
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<td></td>
<td>• Follow Occupational Therapy or Physical Therapy guidelines.</td>
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<td></td>
<td>• Pair the child with a physically able partner to assist in movement around the room.</td>
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<td></td>
<td>• Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
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<td></td>
<td>• Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
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</tbody>
</table>

5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop **Language & Literacy Skill #1: Vocabulary**.

Families can:

• Engage your children in conversation. They learn the most by listening and participating in conversation with adults and their peers.

• Create times of the day when your child knows that you welcome discussion. Meal times are popular to make plans for the day in the morning or recount the events of the day at supper.

• Pass along old, unusable phones for children to practice talking.

• Enrich children’s vocabulary by reading aloud good literature. Ask librarians for assistance in choosing books or search the internet for the top 100 books for young children.

• Read and speak to children in your home language. Being proficient in one language helps children to become proficient in a second language, builds a sense of cultural identity and creates strong relationships with family members.

• Give your children time to respond when asking them a question and discourage other family members from answering for them.

• Try to extend the conversation with children by asking questions that are not answered with “yes” or “no” but with a phrase. Respond by adding some details or maybe explaining a new word. Talk about a similar experience that you had or wonder about something out loud, for example, “I wonder why the fruit market we saw had so many different kinds of apples and where they all came from.”
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Language & Literacy Skill #1: Vocabulary in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

HOW ARE YOU FEELING?

UPK Scheduling Recommendation: Group Time/Outdoor/Indoor Play

Note: This game can be played on its own or as a compliment/follow-up to the game “What’s Another Word For…?”

Key Learning: To practice/learn new vocabulary related to feelings

Learning Environment Set-up:
- Large group area

Materials:
- None

How to Play:
1. Ask the children to sit in a semi-circle facing you.
2. Tell the children that this game is all about feelings.
3. Ask the children to name different kinds of feelings or emotions they have felt, for example, anger, sadness, frustration, happiness, excitement.
4. Explain and demonstrate that:
   - You will perform a physical action to show a certain feeling such as happy, angry, scared, sad, and so on.
   - The children will then guess what the feeling is.
   - Ask the children to try to find the word on the word wall (or word poster).
   - As an extension, ask the children to think of words that mean the same thing (e.g., if the feeling is angry, they might also say mad). You can record these words in a graphic organizer.

   - When the children become familiar and comfortable with the demonstrations, ask for volunteers to act out different feelings. The other children should continue guessing.

5. End the game at your discretion.

**WORD SAFARI**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To develop new vocabulary and to reinforce it on the classroom word wall

**Learning Environment Set-up:**
- Group gathering area

**Materials:**
- Word Wall with heading “Safari Word Wall”
- Informational books
- Fiction material

**Note:** A word wall is easily constructed by printing children’s favorite and most used words on individual cards and mounting them on a wall (bulletin board or organizer with clear pockets). The children are able to access favorite words whenever they go to the writing area. It supports the value of printed words. It can respond to the children’s wishes to know how to write specific words, e.g., mom, dad, dog, cat. You can put a picture beside the word to help identify it.
How to Do:

1. Tell the children you have noticed their interest in Jane Goodall and all the new things she has taught us. Tell them we are all also explorers and we are going on a safari together.

2. Write the word safari on flipchart paper and ask, “Does anyone know what a safari is?” Listen for any reference to trip or animals. Tell the children a safari is a trip or journey over land. Some people might take a plane to get to their safari spot but the safari itself is when they are walking or driving on the land. As they walk and drive they are on the lookout. Usually people go on a safari to look for animals, especially animals they might never have seen before.

3. Say that we are all going on a safari but in our safari we are looking for words – new words that we haven’t heard before. We will start our safari and it can last as long as you like. It may even last all year. You are on safari in the classroom and at home, on your way to and from prekindergarten and wherever else you might be going, even on the weekends. You’re even on safari when you are listening to a book. When you hear a new word, be sure to make note of it. You will collect new words and bring them to the class. We can post our new words on our Safari Word Wall. You can get someone to help you write down the word or you can draw something or maybe write the first sound so you can remember the word when you bring your notes back to class.

4. Tell them we will find time every day to look at our Safari Word Wall and talk about our new words. Because we are word explorers, we may find we want to explore some words again to find out even more about them.

5. As the children contribute their words to the safari wall, reflect on what they know and what they are interested in. You can plan further learning experiences based on the words the children bring. Remember, multiple exposures to words and exploration of the related concept enhances children’s vocabulary and meaning-making skills.

EXPLORATIONS

UPK Scheduling Recommendation: Group Time

Key Learning: To develop descriptive vocabulary

Learning Environment Set-up:

- Display area with space for children to gather and manipulate materials

Materials:

- Basket of different materials including ones that children have not seen before or are not sure of, for example: a variety of buttons, tools, bottle caps, bread tags, fabrics. Ensure that items are not a choking hazard for young children
How to Do:

1. Provide interesting materials for children to examine; just about anything will work as long as it is safe. Change the materials so the children keep checking the basket out.
2. Listen to the children’s conversation, including the use of descriptive words.
3. Record some of the children’s words in your anecdotal notes.
4. Ask them questions about what they are doing in order to foster vocabulary use, for example:
   - What items did you find today?
   - Are any of the items the same?
   - How are they the same or different?
   - What do you like about these items? Do you have a favorite?
   - Have you seen an item like that before? Where? How was it being used?
5. Document in photographs what the children do with the materials and post for the children and families to see. Always give the context for the pictures to families.
6. Offer this material for the children’s play. List to and document their use of this word and the context in which they are using it.

2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To develop vocabulary by exploring books without words

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Any of the following books:
  - *Vincent’s Colors* – Metropolitan Museum of Art
  - *Monet’s Impressions* – Metropolitan Museum of Art
  - *Free Fall or Tuesday* by David Wiesner

*Note:* The above books are without words and require the children to supply the text by describing the illustrations.
How to Do:

1. Because most children in a large group would not be able to see the text this shared reading works best as a small group activity. If the teacher has access to a big book that fits the criteria for the lesson, then the large group could work together on this.

2. Invite the children to talk about the cover, what they think the book is about, and who the author/illustrator is.

3. Open the book and ask the children if they notice anything different about the book. Give them time to answer.

4. At each page give the children time to talk about what they see. Some will want to touch the pages.

5. Ask questions like:
   - Why do you think the book has this title?
   - What do you like (dislike) about the illustrations (Try to use this word instead of pictures)?
   - What is the picture tells us about the story?
   - What happening here?

6. Encourage vocabulary development in these ways:
   - Offer some new vocabulary words for the children and provide a definition for the words.
   - Share the new words that are being generated with the larger group.
   - If you have a word wall, ask the children to choose some favorite words and add them to their word wall.

7. Record some of the words the children use.

8. Leave the book(s) in the reading area for the children to explore on their own time.

9. Document the children’s engagement with the books on their personal time.

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To develop vocabulary through a shared reading experience

**Learning Environment Set-up:**
- Large carpet area
- Big book easel
Materials:
- Big book – choose a familiar story or one with a repetitive reading pattern. Ensure that the book has interesting and/or unfamiliar vocabulary
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

How to Do:
1. Let the children know that you have a book that you will read together.
2. Use words from the story to support vocabulary development by prompting/questioning, for example:
   - What does that word mean?
   - What else could that word mean?
   - Where else have you heard that word?
   - How else could you say that word?
   - Do you know a word that means almost the same thing?
   - How could you find out what that means?
   - Can you guess what that means from the rest of the sentence?
   - Can you guess what that means from the other cues (pictures, nonverbal communication, etc.)?

**WHAT’S ANOTHER WORD FOR...?**

*UPK Scheduling Recommendation: All Centers Open*

Key Learning: To demonstrate an understanding of what is a synonym

Learning Environment Set-up:
- Small group area

Materials:
- None

How to Do:
1. This is a game where children have the chance to come up with a synonym for a word.
2. Have the children take turns by answering a question that you ask each one, for example: “What’s another word for (insert a different word each time you ask the question)?”
3. Have the children decide on a word they know to answer the question. For example, if you insert the word “angry” the child might respond by saying “mad.”

Variations:

- Have the children lead the game. As the lead child says the word, have the other children in the group raise their hands if they can answer the question. If chosen by the lead child, they can say their answer. If the child supplies a correct synonym, s/he takes the next turn as the leader.
- Alter the game question such as: “What’s a specific kind of…?” The word could be “car” and the children can reply with “Volkswagen” or “convertible.”

**WATCH FOR WORDS!**

**UPK Scheduling Recommendation:** All Centers Open

**Key Learning:** To enhance vocabulary through the dramatization of words

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Word wall cards

*Note:* A word wall is easily constructed by printing children’s favorite and most used words on individual cards and mounting them on a wall (bulletin board or organizer with clear pockets). The children are able to access favorite words whenever they go to the writing area. It supports the value of printed words. It can respond to the children’s wishes to know how to write specific words, e.g., mom, dad, dog, cat. You could put a picture beside the word to help identify it.

**How to Do:**

1. This is a version of charades.
2. Provide children the chance to dramatize a word from the word wall.
3. Have the children watching the dramatization look for clues and then guess at the word. Follow up with a couple of questions from the list below:
   - How did you decide to pick that word?
   - How did you know how to act it out?
   - What clues made you think it might be this word? (asked of observers)
   - What did s/he do in the acting that told you it was this word? (asked of observers)
Promoting Inclusion:

- English Language Learners: Support children’s efforts to dramatize words. Check in with children to be sure they understand the word they have chosen.
- Behavior: Support children’s efforts to dramatize words.
- Physical: Pair children to work together.

**WORD CHAIN**

**UPK Scheduling Recommendation:** All Centers Open

**Key Learning:** To practice using vocabulary by connecting related words

**Learning Environment Set-up:**
- Small group area

**Materials:**
- Word cards

**How to Do:**
1. Pair the children.
2. Have Child A choose a word from the word wall and says it out loud.
3. Ask Child B to choose and say a word that is somehow related to Child A’s word.
4. Create longer word chains by having two more children take turns one after the other, with each having to choose and say a word that relates to the word that came before. This will create a word chain of four words.

   pool ➔ swim ➔ wet ➔ cold

**Variations:**
- Make word chains longer than four.
- Have word chains made by individuals.
- Create a word wall with moveable word cards.
- Allow children to post these word chains for all to see.

**Promoting Inclusion:**

- English Language Learners: Provide simple examples to help demonstrate connections such as sun, cloud, sky. Add a picture (of places or things) to help clarify the meaning of words on a word wall.
- Communication: Physically demonstrate the connections.
3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Language & Literacy skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

SCENARIO 1

The children are having lunch. Three boys are talking about the T-ball game they played outside earlier in the day. Child A says, “Did you see that pitch?” Child B smiles and says, “Yeah, that was so amazing!”

Notes
Justin leads Sophie to where a few children are playing on some tree stumps. They each stand on top of one and Justin yells, “Let’s jump into the land of the dinosaurs!” They raise their arms and jump onto the ground all landing steadily on two feet. They climb back up and Justin calls out that he is going to try a twirling jump. “It’s like you’re in a whirlpool twirling in the air. Try it.” The others follow and try it out. Ruben says, “I can do a sideways jump.” Justin answers, “I can do a sider jump too. I can do a backwards jump.” Sophie replies, “So can I. I can just lean backwards and land on my feet.” The three try out different jumps for a few more minutes.
Language & Literacy Skill #2: Print Concepts

There are basic concepts of print that the emergent reader must be made aware of. These concepts include: reading in English is from the left to the right side of the pages, and from the top to the bottom; letters are clustered together to form words; and words remain constant (there is a specific way to spell words).

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Language & Literacy Skill #2: Print Concepts in your classroom program. You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>English Language Arts and Literacy: Craft and Structure</td>
<td>6. With prompting and support, can describe the role of an author and illustrator</td>
<td>19</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>English Language Arts and Literacy: Print Concepts</td>
<td>1. Demonstrates understanding of the organization and basic features of print. 1a. Follows words from left to right, top to bottom, and page by page. 1b. Recognizes that spoken words are represented in written language by specific sequences of letters.</td>
<td>21</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Language & Literacy Skill #2: Print Concepts by:
   - Modeling appropriate reading strategies
   - Label and point to the book title
   - Label and point out the name of the author and illustrator
   - Run a finger or pointing tool smoothly under the text as it is read
   - Guiding children’s efforts to follow the text in a familiar enlarged text
   - Apply print concepts to print within the environment
   - Point out all of the print surrounding children in their environment
   - Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
   - Providing a program that offers authentic opportunities for children to read and write, speak and listen, view and represent
   - Allowing children choices about the books they read and the experiences they participate in
   - Providing quiet space for individual reading
   - Providing a print rich classroom and school environment

b. Fosters Language & Literacy Skill #2: Print Concepts on an on-going basis by:
   - Creating a safe learning environment
   - Valuing children’s opinions and questions
   - Listening to the children’s discussion
   - Participating in discussions with children
   - Provoking, suggesting or prompting
   - Acknowledging the value of different perspectives and beliefs
- Encouraging multiple attempts/repetition
- Providing verbal encouragement
- Believing all children are capable of learning to read
- Acknowledging that we are all language learners
- Learning about children’s interests
- Modeling purposeful reading and writing, including use of big books and shared writing
- Modeling use of environmental print
- Drawing children’s attention to environmental print and its use for gathering information (for example, an information item on community events board) and providing direction (fire drill procedures, recycling guides)

c. Uses questioning/prompting to foster Language & Literacy Skill #2: Print Concepts such as:
   - What kinds of signs do you see in the school? Your neighborhood?
   - What do you do when you read a book?
   - Why do you read?
   - Do you have a favorite place to read?
   - What have you learned from reading?
   - What have you learned to do from a book?
   - What else can you read besides books?
   - Who do you know that reads?
   - How do you know what the book is telling you?
   - Which word tells you that?
   - Which letter(s) do you see?

d. Uses materials (ongoing) such as:
   - A range of reading materials (levels, genres) including newspapers, magazines, menus, recipes
   - Print material created by the teacher and/or the class
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid teacher only books)
   - Open-ended materials that can be used for many purposes
   - Picture dictionaries
   - Meaningful signs, labels and other print materials in the classrooms
e. Uses materials (specific) such as:

- Letter and word pieces/cards/blocks (such as from Scrabble) – moveable, in single letters and words, as well as in blends, rhymes, phrases, etc.
- Repetitive books, predictable books
- Alphabet Books that have quality content such as:
  - *Eating the Alphabet* by Lois Ehlert
  - *Alphabet City* by Stephen Johnson
  - *H is for Homerun* by Brad Herzog
  - *Chicka Chicka Boom Boom* by Bill Martin Jr.
  - *The Graphic Alphabet Book* by David Pelletier
  - *Gone Wild* by David McLimans
  - *The Z Was Zapped: A Play in Twenty-Six Acts* by Chris Van Allsburg
- Picture books, for example:
  - *Max’s Words* by Kate Banks
  - *The Boy Who Loved Words* by Roni Schotter
- Information books
- Books with headings:
  - *Frog and Toad* by Arnold Lobel
- Books about environmental print, for example:
  - *I Read Signs and I Read Symbols* by Tana Hoban
  - *Signs In Our World* by John Searcy
- Books with index, glossary, table of contents, *Frog and Toad* by Arnold Lobel
- Books with key words, phrases, letters or letter blends highlighted
- Books with characters reading and writing such as:
  - *Yours Truly, Goldilocks* by Alma Flor Ada
- Books with alliteration and rhyming patterns:
  - *Potluck* by Anne Shelby
  - *Down by the Bay* by Raffi
- Games that involve combining letters to make words or words to make sentences: Scrabble Jr., charades, *Upwards* (This game’s pieces can be used for invented games.)
- Books about people learning to read, for example:
  - *Jeremiah Learns to Read* by Jo Ellen Bogart
  - *Santa’s Book of Names* by David McPhail
The Wednesday Surprise by Eve Bunting

- Various writing materials, including all kinds of note paper, note pads, post-it notes, mini chalkboards and chalk
- Letters, word ink and paint stamps
- Word and sentence frames, where letters and words (respectively) can be varied to create different words and sentences

3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children read the books from front to back?
- Do the children demonstrate correct directionality when they use a reading wand to track print?
- Do the children identify individual letters? Do they name the letters?
- Do the children use letters to make a word?
- Do the children say things about the new word to demonstrate they understand what it means?
- Do the children make sentences with the words?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. These strategies can be adapted to fit other situations as needed.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Learners</td>
<td>- Consider using books that talk about relevant cultural items, for example, <em>The Empanadas that Abuela Made</em> by D.G. Bertrand (2003). This book is a bilingual book that has chants in both English and Spanish. Another recommended book is <em>Feast for 10</em> by Cathryn Falwell (1993).</td>
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<tr>
<td></td>
<td>- Speak slowly and clearly while reading aloud.</td>
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<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
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<tr>
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<tr>
<td>Use a small group set-up when reading aloud if you do not have big book versions of stories.</td>
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<tr>
<td>Allow the children time to re-read books on their own that they have heard.</td>
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<tr>
<td>Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<tr>
<td>Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<tr>
<td>Learn some words in the child’s first language, if possible.</td>
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<tr>
<td>Provide time for children to form questions when engaged in shared reading experiences.</td>
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<tr>
<td>Provide information books that have simple text and big pictures</td>
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<tr>
<td>Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators</td>
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<tr>
<td>Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<tr>
<td>Acknowledge what the child is doing, such as saying, “You are <strong>digging</strong> in the sand.”</td>
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<tr>
<td>Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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</tbody>
</table>

**Behavior**

<p>| Help children to participate in listening and reading experiences by creating smaller groups. |
| Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed. |
| Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute. |
| Ensure children know the rules to avoid misunderstanding and anxiety. |
| Work in small groups so the child receives appropriate attention. |
| Start with items that allow success early on to engage the child, and then move to more challenging items. |
| Make eye contact so they focus more closely. |
| Place the child in close physical proximity to you so you can help maintain the child’s focus. |</p>
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
</tr>
<tr>
<td></td>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<tr>
<td></td>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
</tr>
<tr>
<td>Communication</td>
<td>▪ Assist child/children to see the print in the stories and which way it moves. Use a finger or fun pointer (star on the end of a pencil).</td>
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<td></td>
<td>▪ Give children time to respond to questions you ask.</td>
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<td></td>
<td>▪ Have the children repeat chant stories frequently.</td>
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<tr>
<td></td>
<td>▪ Sing songs that have repetitive lines to build language skills such “Down by the Bay” by Raffi.</td>
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<tr>
<td></td>
<td>▪ Speak clearly.</td>
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<tr>
<td></td>
<td>▪ Use physical gestures to support what you are saying.</td>
</tr>
<tr>
<td></td>
<td>▪ Point to items to connect words with items.</td>
</tr>
<tr>
<td></td>
<td>▪ Provide time for the child to form words/phrases.</td>
</tr>
<tr>
<td></td>
<td>▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
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<tr>
<td></td>
<td>▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s gestures and spoken attempts.</td>
</tr>
<tr>
<td>Sensory</td>
<td>▪ Have children hold an item that is related to the story to help the child focus.</td>
</tr>
<tr>
<td></td>
<td>▪ Let children show you with their bodies the direction the words flow, for example: left to right and top to bottom.</td>
</tr>
<tr>
<td></td>
<td>▪ Try hand over hand in exploration.</td>
</tr>
<tr>
<td></td>
<td>▪ Encourage the child to touch the objects you are using to support comprehension.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s efforts.</td>
</tr>
<tr>
<td></td>
<td>▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.</td>
</tr>
<tr>
<td></td>
<td>▪ Provide an item for a child to hold for comfort.</td>
</tr>
<tr>
<td></td>
<td>▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.</td>
</tr>
<tr>
<td></td>
<td>▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting</td>
</tr>
</tbody>
</table>
### Inclusion Criteria

<table>
<thead>
<tr>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Create enough space for all children to comfortably see the book being read.</td>
</tr>
<tr>
<td>▪ Use hand over hand to guide a child’s hand along the print from left to right and top to bottom.</td>
</tr>
<tr>
<td>▪ Use big books with their big illustrations that are sometimes easier for visually impaired children to see.</td>
</tr>
<tr>
<td>▪ Use some beginning braille on pages for children to feel how words are placed and when to turn a page.</td>
</tr>
<tr>
<td>▪ Work closely with specialists involved in the child’s development.</td>
</tr>
<tr>
<td>▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.</td>
</tr>
<tr>
<td>▪ Use hand over hand to assist in exploration.</td>
</tr>
<tr>
<td>▪ Provide a step in front of a chair to stabilize the child’s body in the chair.</td>
</tr>
<tr>
<td>▪ Follow Occupational Therapy or Physical Therapy guidelines.</td>
</tr>
<tr>
<td>▪ Pair the child with a physically able partner to assist in movement around the room.</td>
</tr>
<tr>
<td>▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
</tr>
<tr>
<td>▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
</tr>
</tbody>
</table>

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### 5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to practice **Language & Literacy Skill #2: Print Concepts**.

Families can:

▪ Help children to become aware of print by pointing out familiar signs.

▪ Guide children’s eyes to print when you are reading a story by running your finger under and across each line as you read it.

▪ Put a label on things at home to help children become familiar with seeing words for familiar items, for example: chair, table, shirts, socks, pants, shoes, their name, mail.
- As children become familiar with labels, fill an old shoe box with labels and items in it for children to match: doll, shoe, hat, ball, letter.

- Use lower and upper case letters appropriately. Generally the first word in a sentence and the first word in a name have an uppercase letter. All other letters are generally lower case.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address **Language & Literacy Skill #2: Print Concepts** in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. **Teacher-initiated**

**SHARED READING**

**UPK Scheduling Recommendation: Story Time/Group Time**

**Key Learning:** To explore the printed text of a book during a shared reading experience

**Learning Environment Set-up:**

- Large carpet area
- Big book easel

**Materials:**

- Big book – choose a familiar story or one with a repetitive reading pattern
- Something fun to guide the children’s eyes in reading from left to right and top to bottom and front to back such as a feather, wand, umbrella, and so on

**How to Do:**

1. Let the children know that you have a book that you will read together. Use a big book if available. It allows the children to see the text/print which is most effective for facilitating print concepts.
2. Have fun with the story. Be sure first to choose a good piece of literature. It must be engaging!

3. Introduce the children to the big book. Make sure that all the children can see it.

4. Ask the children if they know where the title of the book is on the front cover. Ask someone to point it out.

5. Ask if anyone wants to decide what it is about. Ask how they know (for example, from clues in the illustrations).

6. Invite a child to “turn the pages.”

7. Read the story to the children without pointing out anything.

8. Read the story a second time. Only this time follow the words with your finger or with something fun. By doing so, you are guiding the children’s eyes from left to right and top to bottom.

9. Record children’s ability to demonstrate knowledge of left to right, top to bottom and front to back.

10. Leave the book on the easel for the children to interact with on their own time. They need to repeat the things that you did in order to really know the rules of English language print.

11. Observe the children’s interactions with the big book after the learning experience.

12. Keep in mind the following considerations in any shared reading experience. You can support awareness of the print by prompting/questioning as follows:

   - Do you recognize any words on the cover?
   - Can you tell from the words in the title what this book might be about?
   - Can you think of other times when you have seen people writing in the same way?
   - If you were reading this book, what would you need/want to know?
   - Did you notice any words that look unusual when they are in print?
   - Why do you think the words are all in a line at the bottom (top) of the page?
   - Why is this first letter an upper case letter? Do you see any other upper case letters? (Children should be provided with this correct terminology. “Big” and “little” to describe letter case is misleading.)
   - Why do you think the author decided to write this story, instead of keeping it in his/her head?
   - What is good about writing down stories or other things we have in our minds?
2. Teacher-guided

**ALPHABET SOUP!**

UPK Scheduling Recommendation: All Centers Open

**Key Learning:** To practice organizing letters in order (from left to right) to spell their name

**Learning Environment Set-up:**
- Small group area
- table

**Materials:**
- Bowl
- Spoon
- Plastic or wooden letters

**How to Do:**
1. Show a child a bowl of letters.
2. Choose the letters so that they can be combined to create the name of the child.
3. Ask the child to use a spoon to scoop out one letter at a time, saying the letter name and, if appropriate for the child’s skill level, the letter’s sound(s).
4. Once all the letters have come out of the bowl, ask the child if the child can see their name among those letters. Encourage the child to physically move the letters around to build their name.
LAUNDRY DAY

UPK Scheduling Recommendation: All Centers Open

Key Learning: To practice arranging letters in order to spell thematic words

Learning Environment Set-up:
- Area large enough to hang a clothesline

Materials:
- Clothesline (string)
- Clothespins
- Laundry basket
- Words spelled on paper cut-outs of clothing

Note: Using paper, cut out shapes of pieces of clothing such as hats, socks, pants, etc. with each shape labeled with a letter that corresponds clothing word. There has to be one cut-out for each letter in the name of the clothing item. For example, the word “sock” has four letters. There needs to be four cut-out socks, one showing an “s”, one an “o,” one a “c,” and finally one “k”. Other words could be: p-a-n-t-s, h-a-t, s-k-i-r-t, s-h-o-e, c-o-a-t and so on.

How to Do:
1. Invite a group of children to do the laundry.
2. Explain that the laundry is to be hung in order from left to right so that someone could look at it and see all the shirts and read “shirt.”
3. Encourage the children to use the word wall, picture dictionaries and any other resources in the room to find out how to hang (i.e., spell) the letters in a word in the correct order.
4. Use questions like the following to enhance children’s print concepts:
   - What letters do you recognize?
   - What word do you recognize?
   - How do you know what it says?
   - Are there any clues to help you read the word?
   - Have you seen that letter/word in other places?
   - Can you think of a word that starts the same way?
   - Can you think of a word that has that letter at the start? in the middle? at the end?
   - Where else might you see that letter/word?
   - What does learning to recognize letters/words help you to do?
5. Observe and record information like the following:
   - The children’s use of the word wall and other resources.
   - The children’s ability to sequence the letters.
   - The children’s ability to name the letter.
   - The children’s ability to sequence the letters from left to right on the clothes line.
   - The children’s ability to read or name the item when the full word has been hung on the line.

   Variations:
   - If children struggle with the left to right format, hang the first and final piece of clothing/letter and have the child just hang the letters in between.
   - Provide a cutout with the full word for the child to have in hand and use as a reference when the child hangs the clothes on the line.

**SCRABBLED!**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To practice spelling the names of classmates by completing name puzzles

**Learning Environment Set-up:**
   - A table with enough space for children to multiple children to stand around and work

**Materials:**
   - Letter tiles (such as scrabble letter tiles) with all the letters in the names of the students (so that each child can build his/her own name); focusing on the order of the letters from left to right

**How to Do:**
1. Point out to children that there are new letter puzzles on the table.
2. Tell the children that the there are enough pieces in these puzzles to build the names of all the children in the class.
3. Invite the children to try and put together their own name or the name of one of their friends. Leave the puzzles out for a few days for the children to play with them when they choose to do so.
4. When the puzzles are complete, ask for a few volunteers to help you to build a “Scrabble” board illustration on the bulletin board, crisscrossing names when they have letters in common. Children may choose to add one of more names to the Scrabble image.

3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Language & Literacy skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

**Hearing Stories**

When children visit the Listening Center, use the opportunity to observe what a child does. For example, suppose a child chooses to listen to a digital recording of a favorite story which also has a matching book with text. Consider doing the following:

1. Observe and record the child’s ability to manipulate the text.
2. Note if the child is moving his/her eyes, hand or both from left to right.
   - Does the child hold the book, so that it is the correct side up and the cover facing him/her?
   - Does the child start at the top of the page?
   - Does the child start at the front of the book?
   - Does the child know when to turn the page?
3. If necessary, set the child up if s/he appears confused or unable to begin.
The children have been learning some of the basic print concepts, especially during shared reading when all children can see the text. The teacher models how to hold the book, how to open the book from front to back and uses a pointing wand to demonstrate how to read in English from the top left of the page to the bottom right as well as the return sweep at the end of a line of print. This is a part of every shared reading lesson and the children are engaged in a very brief conversation about these reading strategies each time a book is read.

Today two children have decided to go to the book corner to read some books. They choose to sit on the cushions provided by the teacher and curl up with a teddy bear. As the teacher watches, the children each chose a book and hold it correctly. The book is the right way up and the front cover is facing them. They open the book appropriately and use their finger to track the print. Although the words are not read accurately, the story they tell makes sense because they use the pictures to guide the narrative.

The children then decide to “play school”. One child plays the role of the teacher and sits on the big chair beside the big book stand. The other child sits on the floor in front of the book. The “teacher” follows the same process as the educator had used to open the book, discusses the title and author/illustrator and then reads the book with the other child. Both children had read the story with the teacher so many times that they knew the words and were able to track the print accurately in most cases. It was important to the educator that these children had internalized the concepts that had been introduced during shared reading.

Notes

__________________________________________________________________
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Language & Literacy Skill #3: Phonological Awareness

Phonological awareness is strictly about the sounds that the 26 letters in the alphabet make, either alone or in blends. Phonological awareness is the ability to hear and play with the smaller sounds in words. Children begin in infancy to hear different sounds. We know this by the way they imitate the sounds they hear such as “b-b-b” or “da-da-da-da.” As the different Language & Literacy skills develop together over time in the preschool years, we are able to observe that children begin to match the sounds they are familiar with to specific letters in the alphabet.

Phonological awareness enables children to use sound-symbol correspondence to read and spell words. Understanding that a word is made up of phonemes is difficult because phonemes are abstract. Children have to move from understanding the meaning of language to taking words apart by sounds (not simply letters).

Children develop phonological awareness as they segment, manipulate and blend spoken language in these ways:

- Match sounds to words
- Isolate a sound in a word
- Blend individual sounds in a word
- Substitute sounds in a word
- Segment a word into its constituent sounds

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Language & Literacy Skill #3: Phonological Awareness in your classroom program.

You will find information on:
1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children
1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonological Awareness</td>
<td>2. Demonstrates an emerging understanding of spoken words, syllables and sounds (phonemes).</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonological Awareness</td>
<td>2a. Engages in language play (e.g., alliterative language, rhyming, sound patterns).</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonological Awareness</td>
<td>2b. Recognizes and matches words that rhyme.</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonological Awareness</td>
<td>2c. Demonstrates awareness of relationship between sounds and letters.</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonological Awareness</td>
<td>2d. With support and prompting, isolates and pronounces the initial sounds in words.</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonics and Word Recognition</td>
<td>3. Demonstrates emergent phonics and word analysis skills.</td>
<td>21</td>
</tr>
<tr>
<td>Communications, Language &amp; Literacy</td>
<td>Phonics and Word Recognition</td>
<td>3a. With prompting and support, demonstrates one-to-one letter-sound correspondence by producing the primary sound of some consonants.</td>
<td>21</td>
</tr>
</tbody>
</table>

2. Educator's Role

**a. Uses on-going teaching and learning strategies to support Language & Literacy Skill #3: Phonological Awareness by:**

- Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
- Providing a program that offers authentic opportunities for children to explore concepts in authentic literacy activities
- Providing a classroom schedule that provides for integrated learning in large blocks of time
- Providing time for specific teaching of new concepts
- Valuing meaning making and understanding
- Allowing children choices about the books they read and the experiences they participate in
- Providing quiet space for individual reading
- Providing a listening area with music, sounds and stories
- Providing a print rich classroom and school environment

b. **Fosters Language & Literacy Skill #3: Phonological Awareness on an on-going basis by:**
   - Creating a safe learning environment
   - Listening to the children’s discussion
   - Participating in discussions with children
   - Provoking, suggesting or prompting
   - Encouraging multiple attempts/repetition
   - Believing that all children can succeed
   - Providing verbal encouragement
   - Acknowledging that learning can be a difficult process
   - Acknowledging that we are all language learners
   - Learning about children’s interests
   - Modeling and encourage word play
   - Talking aloud, articulating sounds as you write

c. **Uses questioning/prompting to foster Language & Literacy Skill #3: Phonological Awareness such as:**
   - Which sound(s) do you hear?
   - What other word starts with that sound?
   - What letter makes that sound?
   - What sound could this letter stand for?
   - How many sounds do you hear in this word? What are they?
   - What do you notice about the sounds in these (two) words?
   - What kinds of sounds do you hear in the school? your neighborhood? Where do you hear them? What makes them?
   - What is the first sound you hear?
   - Do you know other words that have the same sound?
d. Uses materials (ongoing) such as:
   - A range of reading materials (levels, genres) including newspapers, magazines, menus, recipes
   - Resource/information books in different formats for different learners (language, picture, simple text, Braille)
   - Books that are easily accessed (avoid teacher only books)
   - Open-ended materials that can be used for many purposes
   - Rhyming books
   - Poems that rhyme or use alliteration or onomatopoeia

e. Uses materials (specific) such as:
   - Letter and word pieces/cards/blocks (for example, from Scrabble) – moveable, in single letters and words, as well as in blends, rhymes, phrases, etc.
   - Rhyming books such as:
     Miss Bindergarten Gets Ready for Kindergarten by Joseph Slate
   - Poems and books that use onomatopoeia (a word that imitates or suggests the source of the sound that it describes, for example bees buzz), for example:
     Flush! An Ode to Toilets by Charlie Williams
     If You Were Onomatopoeia by Speed Shaskan
     Clang Went the Cymbals: An Onomatopoeia Alphabet Book by Dana Hall Jordan
   - Books with alphabetical index and glossary
   - Books with letters or letter blends highlighted such as:
     Z Is for Moose by Kelly Bingham
   - Books with characters who engage in word play:
     The Wonderful Pigs of Jillian Jiggs by Phoebe Gilman
   - Books with alliteration and rhyming patterns such as:
     Potluck by Anne Shelby
     Down by the Bay by Raffi
     Walter Was Worried by Laura Vaccaro Seeger
     Some Smug Slug by Pamela Duncan Edwards
   - Games that involve combining letters to make words and can be used to make rhyming words or words with similar endings, for example, Scrabble Jr., Upwards
   - Word frames where the missing letter(s) make a single phoneme
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Do the children identify distinct sounds?
- Do the children match sounds with letters?
- Do the children isolate the syllables within a word?
- Do the children isolate the sounds within a word?
- Do the children notice similarities and differences in the sounds of words?
- Do the children identify the sounds they hear first? In the middle? at the end?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. Educators can apply and adapt the strategies below to meet the needs of students in each of the Language & Literacy learning experiences and games that follow.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Learners</td>
<td>- Emphasize when words begin the same – repeating the sound, for example: car, came; Tessa, Tony.</td>
</tr>
<tr>
<td></td>
<td>- Emphasize when words end the same – repeating the sound, for example: cart, heart; sun, fun.</td>
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<tr>
<td></td>
<td>- Play games with words and engage children in the games.</td>
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<td></td>
<td>- Avoid formal teaching of letter sounds but allow children to discover similarities between words.</td>
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<tr>
<td></td>
<td>- Introduce rhymes, poems and songs for children to hear similarities in words.</td>
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<tr>
<td></td>
<td>- Speak clearly so the sounds can be heard and copied.</td>
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<tr>
<td></td>
<td>- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
</tr>
<tr>
<td></td>
<td>- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
</tr>
<tr>
<td></td>
<td>- Learn some words in the child’s first language, if possible.</td>
</tr>
<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
<tr>
<td>▪ Provide time for children to form questions when engaged in shared reading experiences.</td>
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<tr>
<td>▪ Provide information books that have simple text and big pictures.</td>
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<tr>
<td>▪ Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators.</td>
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</tr>
<tr>
<td>▪ Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.</td>
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<tr>
<td>▪ Acknowledge what the child is doing, such as saying, “You are <strong>digging</strong> in the sand.”</td>
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</tr>
<tr>
<td>▪ Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.</td>
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</tbody>
</table>

**Behavior**

| ▪ Help children to participate in listening and reading experiences by creating smaller groups. |
| ▪ Encourage children to play with words. Try to avoid a battle over children’s use of inappropriate words by ignoring and redirecting language play. |
| ▪ Acknowledge the contributions of each child. |
| ▪ Work in small groups so the child receives appropriate attention. |
| ▪ Start with items that allow success early on to engage the child, and then move to more challenging items. |
| ▪ Make eye contact so they focus more closely. |
| ▪ Place the child in close physical proximity to you so you can help maintain the child’s focus. |
| ▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior. |
| ▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer. |
| ▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough). |

**Communication**

<p>| ▪ Encourage children to play with words and sounds, for example, finding rhyming words such as: hack, back, sack, tack. |
| ▪ Speak clearly and slowly. |
| ▪ Give children time to respond to questions you ask. |</p>
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Repeat chant stories frequently so children learn the chant and rhythm of the chant.</td>
</tr>
<tr>
<td></td>
<td>▪ Sing songs to build language skills that have repetitive lines, for example, “Down by the Bay” by Raffi.</td>
</tr>
<tr>
<td></td>
<td>▪ Introduce rhymes and poetry to the children.</td>
</tr>
<tr>
<td></td>
<td>▪ Use physical gestures to support what you are saying.</td>
</tr>
<tr>
<td></td>
<td>▪ Point to items to connect words with items.</td>
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<tr>
<td></td>
<td>▪ Provide time for the child to form words/phrases.</td>
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<tr>
<td></td>
<td>▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
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<tr>
<td></td>
<td>▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s gestures and spoken attempts.</td>
</tr>
<tr>
<td>Sensory</td>
<td>▪ Have small groups in which noise levels are lower.</td>
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<tr>
<td></td>
<td>▪ Have children hold an item that is related to the story to help them focus.</td>
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<tr>
<td></td>
<td>▪ Use rhymes and songs that can encourage body movement to engage a kinesthetic learning aspect.</td>
</tr>
<tr>
<td></td>
<td>▪ Try hand over hand in exploration.</td>
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<tr>
<td></td>
<td>▪ Encourage the child to touch the objects you are using to support comprehension.</td>
</tr>
<tr>
<td></td>
<td>▪ Acknowledge the child’s efforts.</td>
</tr>
<tr>
<td></td>
<td>▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.</td>
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<tr>
<td></td>
<td>▪ Provide an item for a child to hold for comfort.</td>
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<tr>
<td></td>
<td>▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.</td>
</tr>
<tr>
<td></td>
<td>▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.</td>
</tr>
<tr>
<td>Physical</td>
<td>▪ Create enough space for all children to comfortably see the book being read.</td>
</tr>
<tr>
<td></td>
<td>▪ Use physical models of items that rhyme such as drum and plum.</td>
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<tr>
<td></td>
<td>▪ Clap children’s hands or use a drum to help them feel the rhythm of the language.</td>
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<tr>
<td></td>
<td>▪ Work closely with specialists involved in the child’s development.</td>
</tr>
<tr>
<td></td>
<td>▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.</td>
</tr>
<tr>
<td>INCLUSION CRITERIA</td>
<td>TEACHING SUGGESTIONS</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
<tr>
<td></td>
<td>• Use hand over hand to assist in exploration.</td>
</tr>
<tr>
<td></td>
<td>• Provide a step in front of a chair to stabilize the child’s body in the chair.</td>
</tr>
<tr>
<td></td>
<td>• Follow Occupational Therapy or Physical Therapy guidelines.</td>
</tr>
<tr>
<td></td>
<td>• Pair the child with a physically able partner to assist in movement around the room.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
</tr>
<tr>
<td></td>
<td>• Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
</tr>
</tbody>
</table>

### 5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop **Language & Literacy Skill #3: Phonological Awareness**.

Families can:

- Have children play with words and language sounds early on. Encourage and participate in the play by reading nursery rhymes and poetry.
- Play rhyming games in the car or on the transit. Pick an easy sound such as “at.” See how many words your child can create with that root sound.
- Sing rhyming songs or chants to and with your children.
- Play a family game where one person says a word and the others think of as many words that start with the same beginning sound. For example if the first word said is “alligator,” your child might reply: “apple,” “ant,” and so on.
- Read stories that have a repetitive line like the following: “Jillian, Jillian, Jillian Giggs, your room looks like it was lived in by pigs.”
- Have your child pick a phonetic sound. Give them a grocery bag or digital camera. Ask them to collect as many things as they can while you make dinner that begin (or end) with that sound. Discuss the items during dinner.
- Go for a sound walk outside. Find things and record the sound they start with. Focus on finding several examples of one sound or how many different sounds you can find or finding a sound for every letter of the alphabet!
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Language & Literacy Skill #3: Phonological Awareness in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

I ONCE...

UPK Scheduling Recommendation: Group time

Key Learning: To practice rhyming words using sounds of letters and blends

Learning Environment Set-up:
- Large or small group area

Materials:
- None

How to Do:
1. Use sentence starters to have children create rhymes. For example, you say, “I once saw a goat wearing a __________.”
2. In response, the children have to come up with rhyming words such as: coat, boat, vote, note.
3. A second example is: “I once saw a hare with a __________.”

Note: This activity can be done while singing the song “Down By the Bay”
Variation:
- Let the children create the riddle and you or their peers provide the rhyme.

**PORTRAIT OF A POET**

**UPK Scheduling Recommendation: Group Time**

**Note:** This activity would be well placed in the yearly schedule toward spring, as it builds on vocabulary, letter recognition and phonological awareness that can be explored in the early part to the school year.

**Key Learning:** To develop vocabulary and practice the starting sounds of names

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Class photo
- Flipchart
- Markers

**How to Do:**
1. Every child is a poet! Show children on a posted flipchart paper the graphic organizer below known as the Frayer Model Template.
2. Gather the children to point out the categories for sorting words in this template.
3. Select the name of one student to write in the middle of the graphic organizer, for example Sean. It would be important to do this activity with the name of each child at different points in the year so that each child feels included.
4. Tell the children that they are going to think of words that start with the same sound as the name in the middle. There are four categories:
   - Action words that describe what the person does. In the example, Sean shakes and shares.
   - Adjectives that describe the person. In the example, Sean is shy and short.
   - Common objects the person might have or use. In this example, the objects include shark teeth, shell and sheet.
   - Words that rhyme with the poet’s name.
5. Remind the children that the sounds may not always be written with the same letters as the child’s name. Sometimes different letters and letter combinations can make the same sound.
6. Keep the poster up for about a week. Encourage the children to brainstorm words that begin with the same sound as the child’s name. The words might be any that would fit in the four categories.

7. Encourage children to record the words they generate or ask other children or you for help.

8. Use the poet posters to create funny phrases or sentences about the poet, for example: *Shy Sean shakes when he sees sharp shark teeth.*

9. These funny sentences can be used in poetry writing or repetitive songs and classroom made books.

![Portrait of a Poet – Sean](image)

**MMMMATCH**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To practice knowledge of letter sounds by matching word cards

**Learning Environment Set-up:**
- Small group space

**Materials:**
- Sets of photo cards that match based on sounds (beginning or end)

**How to Play:**
- Develop the children’s awareness of word patterns and the sounds that the letters make in word formation.
2. Prepare cards with photos of items that begin with the same sound or end with the same sound (rhyming).

3. Have a child lay out the cards upside down. The child should:
   - Turn over a card.
   - Look at the photo and say the word it represents.
   - Turn over the other cards to find matches with items according to the beginning or ending sound.
   - Again, the child may say the words out loud while playing.

4. Invite the child to play with a friend.

5. Observe how the children work with the cards. For example, do they explore them first before they realize how they match?

6. Ask questions to help such as,” What do you think these cards are about?” “What do you think you could do with them?”

7. Listen to the conversation between children working with the cards. Are they identifying the rhyming or matching sounds?

8. Hold a discussion using the RCA questions that follow.

REFLECT-CONNECT-APPLY Discussion Questions:

Reflect
   a. Why do these pictures & words match?
   b. How did this game help you?

Connect
   c. Have you heard these words before?
   d. What other words do you know that start with that sound?
   e. What other words do you know that have the same sound at the end?
   f. What books or poems do you know that have rhyming words in them?

Apply
   g. How can this activity help us to make words?

Variation:
   - Ask the children:
     - Are there other ways to match these cards?
     - What kind of silly rhymes could you make up with some of these pictures?
2. Teacher-guided

**SHARED READING**

*UPK Scheduling Recommendation: All Centers Open/Story Time*

**Key Learning:** To practice identifying sounds and blends in the text of a story

**Learning Environment Set-up:**
- Carpet area for small group
- Big book easel

**Materials:**
- Big book – Choose a familiar story or one with a repetitive reading pattern.
- Something fun to serve as a ‘pointer’ to guide the children’s eyes in reading from left to right, top to bottom and front to back.

**How to Do:**
1. Show the children that you have brought a book and tell them that you will read together.
2. Introduce the children to the big book. Make sure that all the children present can see.
3. Read the story by following the words with the chosen ‘pointer’ (a magic reading wand). Occasionally, tap the first letter of the sentence. Be careful, however, not to interrupt the flow of the story.
4. Leave the book on the easel for the children to interact with on their own time. They need to repeat the things that you did in order to really know the rules of English language print.
5. In any shared reading experience, support awareness of the print by prompting/questioning as follows:
   - What is one sound you heard on this page?
   - Can you point out the letters that match that sound?
   - How many sounds do you hear in this word?
   - Can you tap out the sounds (using the wand) as you say the word?
   - Did you hear another word that started with the same sound?
   - Did you hear another word with the same sound at the end?
6. As you do shared reading with children, keep in mind the following:
   - Do shared reading only with children who want to be present.
   - Choose a good piece of literature first. It must be engaging.
• Have fun with the story!
• Observe the children’s interactions with you and the text. Later record your observations.
• Observe the children’s interactions with the big book after the learning experience.
• Record their ability to demonstrate phonological awareness.

**DON’T FORGET THE BACON!**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To develop an awareness of letter sounds by practicing with rhyming words

**Learning Environment Set-up:**
- Group gathering area

**Materials:**
- A grocery list of four items with pictures to match

**How to Play:**
1. This learning experience is like a “broken telephone game” where words get repeated until the final list is nothing like the list you began with.
   - Tell the children they are going to change a shopping list. The list has two items on it.
   - Write the two items on flipchart paper so the children can see them.
   - Explain to the children that the list gets changed by creating rhyming words. Model the process by reading the posted list and saying, “I need to get bread and pie.” Then to show the change after rhyming, say, “I need to get red and cry.”
   - Invite the children to take turns making another rhyming list with bread and pie.
   - Record the new lists on the board.
   - Enrich the learning by asking questions such as those that follow.
REFLECT-CONNECT-APPLY Discussion Questions:

Reflect
  a. What is the same about the words you have chosen?

Connect
  b. What other words have the same sound at the end (any rhyming words)?

Apply
  c. How is our list the same as the words we started with?
  d. How is our list different from the words we started with?

Variations:

- Repeat the game with 2-4 new words (a new grocery list).
- Adjust the list keeping the first letter but changing the rest of the word, for example, “I need to get berries and potatoes.” In this case, bread changes to berries and pie changes to potatoes.

3. Child-initiated

“Teachable moments” are unplanned opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Language & Literacy skills.

SCENARIO 1

During their independent play the children have been making homemade instruments. Some children have extended this creation activity by playing songs on their instruments. Having the three children share their songs has sparked much excitement and interest among other children in the class. There are now enough instruments that every child can have one.
SCENARIO 2

A group of four children are building with Lego. They have continued a conversation that began during the group gathering time and involved creating words that rhyme with people’s names. They are looking around the room at their classmates and making up rhymes to go with the other children's names. They keep laughing, as many of the descriptions are nonsense.

Notes
Language & Literacy Skill #4: Phonics and Word Recognition

Letter knowledge is the recognition of the 26 letters of the alphabet and the ability to name them. Children cannot engage in conversations about letters and letter sounds without this knowledge. Phonics is the knowledge of the sounds that are represented by these letters and combinations of letters. Young children should also begin recognizing words that they will see frequently (high frequency words), beginning with their names.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Language & Literacy Skill #4: Phonics and Word Recognition in your classroom program. You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

1. Links to the Prekindergarten Foundation for the Common Core

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication, Language &amp;</td>
<td>Phonics and Word Recognition</td>
<td>3. Demonstrate emergent phonics and word analysis skills.</td>
<td>21</td>
</tr>
<tr>
<td>Literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication, Language &amp;</td>
<td>Phonics and Word Recognition</td>
<td>3a. With promoting and support, demonstrate one-to-one letter-sound correspondence by producing the primary sound of some consonants.</td>
<td>21</td>
</tr>
<tr>
<td>Literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication, Language &amp;</td>
<td>Phonics and Word Recognition</td>
<td>3b. Recognizes own name and common signs and labels in the environment.</td>
<td>21</td>
</tr>
<tr>
<td>Literacy</td>
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</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Language & Literacy Skill #4: Phonics and Word Recognition by:

- Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
- Providing a program that offers authentic opportunities for children to read and write, speak and listen, view and represent
- Providing a classroom schedule that provides for integrated learning in large blocks of time
- Modeling of appropriate literacy techniques
- Providing a balanced approach to the teaching of literacy
- Sharing the thinking behind the problem-solving involved in reading and writing
- Allowing children choices about the books they read and the experiences they participate in
- Providing quiet space for individual reading

b. Fosters Language & Literacy Step #4: Phonics and Word Recognition on an on-going basis by:

- Creating a safe learning environment
- Valuing children’s opinions and questions
- Listening to the children’s discussion
- Participating in discussions with children
- Provoking, suggesting or prompting
- Encouraging multiple attempts/repetition
- Providing verbal encouragement
- Modeling purposeful reading and writing
- Reading aloud every day
- Writing with the children regularly

c. Uses questioning/prompting to foster Language & Literacy Skill #4: Phonics and Word Recognition such as:

- What sound do you hear?
- What other word starts with that sound?
- Where do you see that word on our word wall?
- Say the word slowly. Stretch it out like a rubber band.
Listen while I stretch that word out slowly for you. What sound do you hear at the beginning of the word?

What else can you read besides books?

Use this reading wand to walk around the room and read the walls.

Use this reading wand to go on a word hunt for your name.

This word I am going to write starts with the same letter as your name. Come up and print the first letter of your name on this word in today’s story.

You might want to write that down.

d. Uses materials (ongoing) such as:

- A range of reading materials (levels, genres) including magazines, menus, recipes
- Reading materials appropriate to the center at which they are working
- Picture dictionaries
- Reading wands (any stick that is either plain or highly decorated that allows children to point to print in their environment)
- A wide range of writing material (paper, markers, envelopes) for independent use
- Open-ended materials that can be used for many purposes

e. Uses materials (specific) such as:

- Books about environmental print, for example:
  - I Read Signs and I Read Symbols by Tana Hoban
  - Signs In Our World by John Searcy
- Books with characters who are reading and writing such as:
  - Yours Truly, Goldilocks by Alma Flor Ada
- Books with key words highlighted
- Word walls within the classroom, listing thematic words
- Letter tiles
- Letter and word ink and paint stamps
- Paper of different sizes and colors made available to children at all times
- Various writing tools such as pencils, pens, markers, crayons, mini chalkboards and chalk, note paper, post-it notes
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions/comments:

- What other words start with the same sound as your name?
- Print your name on your paper/art (accept approximations).
- Count how many times your name is found in our classroom.
- Use the reading wand to point and read the names of other children in the room.
- You could write that down so you remember it later (accept approximations).
- You could make a sign to show everyone that.

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. Educators can apply and adapt the strategies below to meet the needs of students in each of the Language & Literacy learning experiences and games that follow.

<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Learners</td>
<td>- During shared reading, emphasize words that start with the same sound and identify the letters.</td>
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<tr>
<td></td>
<td>- Starting with children’s names allows all children access to the activity.</td>
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<td></td>
<td>- When developing a list of words that start with a specific letter, accept words in other languages.</td>
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<td></td>
<td>- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
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<td></td>
<td>- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.</td>
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<td></td>
<td>- Learn some words in the child’s first language, if possible.</td>
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<td></td>
<td>- Provide time for children to form questions when engaged in shared reading experiences.</td>
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<tr>
<td></td>
<td>- Provide information books that have simple text and big pictures.</td>
</tr>
</tbody>
</table>
## INCLUSION CRITERIA

- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators.
- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.
- Acknowledge what the child is doing, such as saying, “You are **digging** in the sand.”
- Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.

## TEACHING SUGGESTIONS

<table>
<thead>
<tr>
<th>Behavior</th>
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</thead>
<tbody>
<tr>
<td>- Encourage children to work with a friend when writing ideas.</td>
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<tr>
<td>- Acknowledge a child’s efforts to respond to questions/prompts.</td>
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<tr>
<td>- Provide one-on-one assistance with challenging activities.</td>
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<tr>
<td>- Provide physical support, such as holding a hand or guiding with a hand on the shoulder.</td>
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<tr>
<td>- Use calm tones when providing verbal support in stressful situations.</td>
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<tr>
<td>- Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.</td>
</tr>
<tr>
<td>- Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.</td>
</tr>
<tr>
<td>- Ensure children know the rules to avoid misunderstanding and anxiety.</td>
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<tr>
<td>- Work in small groups so the child receives appropriate attention.</td>
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<tr>
<td>- Start with items that allow success early on to engage the child, and then move to more challenging items.</td>
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<tr>
<td>- Make eye contact so they focus more closely.</td>
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<tr>
<td>- Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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<tr>
<td>- Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
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<tr>
<td>- Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
</tr>
<tr>
<td>INCLUSION CRITERIA</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
</tr>
</tbody>
</table>
| **Communication** | ▪ Explore different computer programs for some children. A computer may be the only way a child will be able to generate print.  
▪ Encourage the use of drawings with simple labels to supplement writing attempts.  
▪ Speak clearly.  
▪ Use physical gestures to support what you are saying.  
▪ Point to items to connect words with items.  
▪ Provide time for the child to form words/phrases.  
▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”  
▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.  
▪ Acknowledge the child’s gestures and spoken attempts.  
▪ Provide time for the child to form words/phrases.  
▪ Use Picture Exchange Communication symbols to help children tell you about their food, where they might travel to, their weekend story, and so on. |
| **Sensory** | ▪ Use bigger pencils that are easier to grasp.  
▪ Try hand over hand in exploration.  
▪ Encourage the child to touch the objects you are using to support comprehension.  
▪ Acknowledge the child’s efforts.  
▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.  
▪ Provide an item for a child to hold for comfort.  
▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.  
▪ Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.  
▪ Use fewer items to lower stimulation, if necessary, when playing. |
| **Physical** | ▪ Make room at the reading area for children with special apparatus  
▪ Check with family to be sure you can take a child out of a wheel chair for some learning experiences and hold them in your lap or use a floor corner chair with supports. |
<table>
<thead>
<tr>
<th>INCLUSION CRITERIA</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Provide different writing tools for children to work with. Start big then reduce the size.</td>
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<tr>
<td>▪ Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.</td>
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<tr>
<td>▪ Use hand over hand to assist in exploration.</td>
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<tr>
<td>▪ Provide a step in front of a chair to stabilize the child’s body in the chair.</td>
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<tr>
<td>▪ Follow Occupational Therapy or Physical Therapy guidelines.</td>
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<tr>
<td>▪ Pair the child with a physically able partner to assist in movement around the room.</td>
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<tr>
<td>▪ Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.</td>
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<tr>
<td>▪ Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.</td>
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<tr>
<td>▪ Pair children with an able friend to work together.</td>
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</tbody>
</table>

5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop Language & Literacy Skill #4: Phonics and Word Recognition.

Families can:

▪ Support your child’s/children’s first attempts at writing which will be scribbling. Scribbling is an important stage in writing development, just as your child’s babbling was when they were learning to talk.

▪ Model for children how to stretch out the sounds in words: ssss-aaa-t.

▪ Support children’s attempts at forming letter-shaped marks and know that this is a significant stage in developing writing skills.

▪ Model for your children the use of the written word. For many today, that means sending emails or text messages as a method of communicating.

▪ When reading to your child indicate the words by running your finger under the lines when you are reading aloud so that your child starts to recognize that words have a purpose.

▪ Make your child aware of print in their environment. Read those signs that are significant to the child or to your neighborhood.

▪ Connect functional print, such as signs and labels in the community, to information. Children do learn to recognize some familiar signs very early in life, for example, names of fast food restaurants and traffic signs.
Learning Experiences and Games

This section provides you with a range of learning experiences and games to address Language & Literacy Skill #4: Phonics and Word Recognition in your classroom program. These include learning experiences and games that are:

1. Teacher-initiated
2. Teacher-guided
3. Child-initiated

With some modifications these learning experiences and games can be linked to any theme or unit of study in your program. The learning experiences and games can also be modified to accommodate your learners’ needs, abilities, learning styles, and so on. The play-based early learning experiences and games you develop for specific learners will often benefit other children as well.

Recommendations have been offered to assist you in implementing them into your daily schedule.

1. Teacher-initiated

I SPY

UPK Scheduling Recommendation: Group Time

Key Learning: To practice applying phonetic knowledge in a game format

Learning Environment Set-up:
- Classroom or playground

Materials:
- None

How to Play:
1. Consider a phonetic sound that you think the children are easily able to identify. Locate a mystery item that the children can see that begins with that sound.
2. Identify the mystery item by saying, for example: “I spy something that begins with ssss.”
3. Children call out various things that start with that sound until they find the one that you were thinking about.
4. Once the mystery item is identified, work with the children to identify the first letter of the word as well so that they can make the connection between the sound and the letter.

5. As the children indicate they are ready, switch the activity to asking children to search for the mystery item following an initial letter clue, for example: “I spy something that begins with the letter s.”

6. As the children indicate they are ready, one child takes the lead in the activity and chooses the mystery item and responds to children’s suggestions.

Variation:
- Encourage children to play “I Spy” among themselves and with family members.

Promoting Inclusion:
- English Language Learners: Use gestures to emphasize your words.

**LOST LETTER!**

**UPK Scheduling Recommendation: Group Time**

**Key Learning:** To identify letters in different samples of printed text

**Learning Environment Set-up:**
- Large or small group area

**Materials:**
- Text samples – newspaper headings, magazines, comic strips, poems, sentences, lists, etc.
- Magnifying glass
- Highlighter
- Chart paper
- Markers

**How to Do:**
1. Provide children with a number of samples of print text.
2. Provide a magnifying glass and highlighter.
3. On chart paper, prepare seven signs that say “Missing.” Below each word print one large letter per sign: s, t, v, k and so on (seven letters total).
4. Write a description of each letter you print, that you will read to the children. For example a description for S may be, “S is a curving letter, first looping downwards,
counter clockwise for half a circle and then looping down and clockwise for another half circle."

5. Tell the children there has been a missing letter report.

6. Hold up one of the “Missing” signs. Read the description of the letter.

7. Have your finger follow along the shape of the letter to illustrate how it matches what you are saying, as you read the description.

8. Invite the children to take a magnifying glass and see if they can find the missing letter in the samples of print you have provided.

9. Ask them to highlight the missing letter when they find it. Leave the missing letter report on the table so children can match letters they find to the illustration of the letter.

**Note:** Be careful not to use a word list here. The ‘missing’ letter is the letter the children must hunt for, described by the teacher, not a letter missing in a group of spelled words.

---

**BUCKETS**

**UPK Scheduling Recommendation:** Group Time/Outdoor Play/Indoor Play

**Key Learning:** To practice word recognition skills in a game

**Learning Environment Set-up:**
- Large group area

**Materials:**
- Small squares of paper in six different colors (at least two pieces for each child) with the corresponding color words written on the papers.
- Six buckets labeled (or with signs attached) with the color words to match the six colors of the game.
- Hula hoop or chalk (anything to draw a circle on the ground)

**Note:** This game can be used to build word recognition of high frequency words by writing words on the small squares of paper and the corresponding high frequency on the buckets. In this instance the small squares of paper would not have to be “color-coded” because the emphasis is on “matching” written words.

**How to Play:**

1. Divide the children into groups of 3-6.
2. Place the small squares of colored paper in the hula hoop or chalk circle in the middle of the play area (see diagram).
3. Ask each group to line up around the room at an equal distance from the circle of colored papers (see diagram).
4. Place the six labeled buckets around the area (see diagram).

5. Explain and demonstrate that:
   - Before they begin, you will tell the children how to move toward the hoop, for example, by walking, skipping, hopping, crawling or bouncing).
   - The first child from each group will move toward the hoop.
   - When each child reaches the hoop, the child picks up one piece of colored paper. The child says the color word. The child runs to the bucket with the same color paper taped on it, and puts the paper in the bucket.
   - Then the child runs back to the group line and joins the end of the line.
   - The next child in each group will take a turn.

6. Continue until all children have had a chance to pick up two pieces of paper from the hoop.

**WORDS TO EAT!**

*UPK Scheduling Recommendation: Group Time*

**Key Learning:** To develop word recognition skills by looking at environmental print

**Learning Environment Set-up:**
- Classroom

**Materials:**
- Samples of environmental print, bookmaking materials
How to Do:

1. Implement this learning experience over several days.
2. Show the children a box of Cheerios. Point to the name “Cheerios.” Ask the children who can read the word, to say it aloud together.
3. Do the same with a few other examples of environmental print.
4. Invite the children to look around their home and bring in labels and packages that they can read.
5. Prepare and send a letter home with the children so that their families can support the children as they choose one or two items.
6. A few days later, after the children have had a chance to bring in the items, work with the children to create a class book in which each page has the repetitive statement: *We can read the word [environmental print word brought from home].*
7. Put the pages together to create a book.
8. Invite the children to read the book with you. As you read aloud, have the children chime in when they know the word.
9. Leave the book on the book shelf for children’s use. Children may choose to take it home, borrowing it for one or two nights to read to their families.

Variations:

- Create additional books such as “Our Favorite Foods” or “Our favorite books” using other prompts, for example:
  - (Child’s name’s) favorite food is...
  - (Child’s name’s) favorite book is...
- Use the internet to find and print off a cover for the books.

Promoting Inclusion:

- *English language Learners: Encourage the collection of labels from first language products.*
POST OFFICE

UPK Scheduling Recommendation: Group Time

Key Learning: To practice recognizing familiar words/names

Learning Environment Set-up:
- Classroom or outdoors

Materials:
- 10 “mailboxes” (tins or cardboard boxes) with the name of a different child written on the outside of each
- 10 envelopes each with the name of a different child on it but matching the names on the mailboxes
- 10 pictures of household mailboxes with the name of a child on each also matching the names on the mailboxes

How to Play:
1. Print the name of a different child on each envelope.
2. Prepare 10 mailboxes and set them up around the classroom.
3. Select 10 children to pick an envelope from your hand. Their task is to find the post box for that child and post the letter.
4. Give 10 children pictures of mailboxes with their class mates' names.
5. Choose two children to be postal workers. Have each go to five mailboxes, collect the mail and then bring it back to the carpet and deliver it to the appropriate person (each child with a picture of a mailbox marked with a child’s name).
6. Hold a discussion using the RCA questions that follow.

**REFLECT-CONNECT-APPLY Discussion Questions:**

**Reflect**
- a. How did you match the letters to mailboxes?
- b. What cues did you use?

**Connect**
- c. How do you get mail to your home?
- d. What gets delivered to your home?
- e. What do we call the person who brings the mail?

**Apply**
- f. Why is it important to put an address on the envelope?
- g. Who knows their address or addresses? (Challenge students to learn their address)

**Variation:**
- Adapt the game to also include people’s addresses and/or zip codes.

**WORD WALK**

**UPK Scheduling Recommendation: Outdoor Play**

**Key Learning:** To recognize letters and words in the printed text in their neighborhood

**Learning Environment Set-up:**
- Whole class activity
- Outside of school grounds

**Materials:**
- Digital camera

**How to Do:**
1. Take the children on a neighborhood walk to look for print in the neighborhood.
2. Take a digital camera with you. Tell the children to point out signs that they want you to take a picture of.
3. Upon returning from the walk, print the pictures and create a display or book for the children to look at the signs and talk about how print is used in their neighborhood.
4. Ask these questions to enrich the learning:
   - Do you see any signs that you recognize?
   - How do you know what it says?
   - Are there any clues to help you read the sign?
   - Have you seen any of these signs in other places near your home?
   - What else do you recognize about these signs and words?
   - Who else uses these signs? Why?
   - What might happen if we did not have signs to read?

5. Observe the children’s ability to recognize functional print. Record and document the walk and print the children point out.

6. Prepare the pictures for the children to revisit individually or in your large group or to share with families.

Variation:
   - Invite the children to make their own signs for around the learning environment.

Promoting Inclusion:
   - English Language Learners: Have photos of signs that may be in more than one language.
   - Sensory: Provide the actual item for children to acknowledge and to name the qualities of the item.
   - Physical: Give all children opportunities to take photos, if possible, during “Word Walk.”
2. Teacher-guided

**PUBLISHING HOUSE**

UPK Scheduling Recommendation: All Centers Open

**Key Learning:** To provide opportunity of practice with letters and recognized words

**Learning Environment Set-up:**
- A table or work bench set up with the materials below and with a sign posted above the table

**Materials:**
- ‘Pre-K Publishing’ sign
- Duct tape
- Hole punch
- Rings
- Binder books
- Duotangs
- Bristol board
- Art paper

**How to Do:**
1. In an area of the classroom, set up a publishing house with the supplies for bookmaking readily available to the children.
2. Encourage children (authors) to:
   - Experiment with text and illustrate their work
   - Or, find a classmate to collaborate with to do the illustrations for each other’s stories
   - Take their stories to the publishing house
3. Work with the children to help them to bind their stories into a book using Bristol board, art paper, duct tape, hole punch, rings, binder books. Use re-usable bindings if available.
4. Leave the books in the classroom library to be read by everyone or borrowed to be read with families.
**EXCAVATING**

*UPK Schedule Recommendation: All Centers Open*

**Key Learning:** To apply knowledge of letter shapes to predicting

**Learning Environment Set-up:**
- Classroom sand table or outdoors sand box

**Materials:**
- Wooden letters
- Dust brushes/paint brushes

**How to Do:**
1. Bury wooden letters in the sand table or in the sand on the playground.
2. Give children brushes and invite them to be excavators and use the brushes to discover a hidden letter, just like discovering dinosaur fossils.
3. Encourage the children to guess the letter that is being revealed with each stroke of the brush.

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**LETTER RUBBINGS**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To explore letter shapes through letter rubbings

**Learning Environment Set-up:**
- Classroom
- Table

**Materials:**
- Pencils
- Charcoal or crayons
- Paper
- Letter cutouts or wooden letter

**How to Do:**
1. Set up the environment with pencils, charcoal or crayons, paper and letter cutouts or wooden letters.
2. Demonstrate how to do a rubbing, using a letter or other item.
3. Encourage the children to create letter rubbings.
4. Have the children work in teams, placing a letter under the paper and then having a child begin rubbing and guessing what the letter is as it is slowly revealed.

**LETTER COLLAGE**

*UPK Scheduling Recommendation: All Centers Open*

**Key Learning:** To identify letters in samples of printed text

**Learning Environment Set-up:**
- Classroom

**Materials:**
- Poster paper/Bristol board
- Flyers, magazines, newspapers
- Scissors

**How to Do:**
1. Hang poster paper around the classroom. On each poster put a letter.
2. Invite the children to find other examples of the same letter in flyers, magazines, newspapers, and so on.
3. Have the children cut out and glue these new letters to the poster to create a letter collage.
4. Ask questions like the following to enrich the learning:
   - What letters do you recognize?
   - What word do you recognize?
   - How do you know what it says?
   - Are there any clues to help you read the word?
   - Have you seen that letter/word in other places?
   - Can you think of a word that starts the same way?
   - Can you think of a word that has that letter at the start? in the middle? at the end?
   - Where else might you see that letter/word?
   - What does learning to recognize letters/words help you to do?
3. Child-initiated

“Teachable moments” are spontaneous opportunities to help children make gains in their knowledge, skills and/or attitudes. Such moments may present themselves in many ways: for example, a child may ask a question, make a surprising observation or discovery or voice a misconception.

Although many teachable moments occur spontaneously, you can predict and prepare for others. Such moments are opportunities to help children develop their Language & Literacy skills. Be prepared to prompt children’s thinking and use of interesting vocabulary.

WRITE AWAY

UPK Scheduling Recommendation: All Centers Open

Key Learning: To demonstrate an interest in printed text by experimenting with writing

Learning Environment Set-up:
- Various opportunities for student’s to write set-up throughout the classroom

Materials:
- Clip boards
- Pencils, pens, markers
- Paper (variety of kinds and sizes that are easily accessible on a writing shelf or in the writing area)
- Mailbox for children to send items back and forth to each other and you

How to Do:
1. Encourage the children to use the variety of paper and writing tools to imitate the teacher’s engagement with print.
2. Observe children using clipboards with paper and pens.
4. Document examples of the children’s mark making and emergent writing skills through digital photos.

Variations:
- It is often best to observe during this learning experience. However, if the opportunity arises when the children show you their mark making and print attempts, ask them to read their work to you or to talk about it.
- Ask if you can photograph their work.
The children had been studying graphs and learning how to conduct a simple survey. The teacher had created a simple five column graph and printed up a number of blank copies for the children to use independently during free activity time.

Nya and Tenaya decided that they would like to find out which animal their friends would like for a pet. They thought hard about which animals might be popular with their friends and then started to write out their choices. The word dog was on a chart on the wall so they ran over to the chart with their paper and Nya copied the word onto the graph. Cat was not there but they thought about the sounds and knew they needed a letter that made the k sound. They initially wrote a k but then remembered that cat started with a c and changed it. They wrote ct. Then they wanted guinea pig for the third column and asked the teacher for some help. He helped them to hear the g sound at both the beginning and the end of guinea pig and the girls knew that this would be represented by the letter g. They printed the first letter, the teacher printed the rest of the letters and the girls printed the final g. They thought this would be a good graph and printing guinea pig took a lot of time, so set off to read it with their friends and find the answer to their survey question.
Language & Literacy Skill #5: Fluency

There are some words that recur in written language that are not easily sounded out (the, this, where, for example). When children are taught how to read these words by being exposed to them frequently and by using them in their writing, more of their reading and writing thinking can be devoted to decoding new and unfamiliar words. This allows the young reader to read more smoothly or fluently and it is much easier for them to make meaning from the text.

To begin this process, young children need to feel confident about their ability to read. The first step in this process is for the child to begin feeling like a reader and “pretend read” as many different kind of texts as they can.

Planning Information

This section provides you with information to assist you in planning learning experiences and games to address Language & Literacy Skill #5: Fluency in your classroom program.

You will find information on:

1. Links to the Prekindergarten Foundation for the Common Core
2. Educator’s Role
3. Observation, Documentation, Assessment
4. Inclusion Strategies
5. Strategies to Share with Families to Enable Them to Help Their Children

The learning experiences and games for this skill are linked to relevant standards in the Prekindergarten Foundation for the Common Core (PKFCC). The chart below lists the specific clusters, standards/indicators and their location in the PKFCC.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cluster</th>
<th>Standards/Indicators</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication, Language &amp; Literacy</td>
<td>Fluency</td>
<td>4. Displays emergent reading behaviors with purpose and understanding (e.g., pretend reading).</td>
<td>22</td>
</tr>
</tbody>
</table>
2. Educator’s Role

a. Uses on-going teaching and learning strategies to support Language & Literacy Skill #5: Fluency by:
   - Providing a print-rich environment for children that they can access independently
   - Providing an inquiry-based program which engages children in authentic problem-solving and decision-making
   - Providing a program that offers authentic opportunities for children to read and write, speak and listen, view and represent
   - Providing a classroom schedule that provides for integrated learning in large blocks of time
   - Providing independent reading books that are clearly illustrated
   - Encouraging children to choose to look at books and to add their own stories (pretend reading)
   - Asking children to tell you the story as they look through books
   - Modeling of appropriate literacy techniques
   - Providing a balanced approach to the teaching of literacy
   - Sharing the thinking behind the problem-solving involved in reading and writing
   - Allowing children choices about the books they read and the experiences they participate in
   - Engaging children in a shared experience of reading with the teacher until they are confident about reading the text independently
   - Encouraging children to read the walls of the classroom
   - Providing quiet space for individual reading

b. Fosters Language & Literacy Skill #5: Fluency on an on-going basis by:
   - Creating a safe learning environment
   - Valuing the time children may be prepared to devote to a reading activity
   - Listening to the children’s discussion
   - Encouraging multiple attempts/repetition
   - Providing verbal encouragement
   - Modeling purposeful reading and writing
   - Reading aloud every day and reading with the children every day
   - Writing with the children regularly
c. Uses questioning/prompting to Language & Literacy Skill #5: Fluency such as:

- Use this word wand to read the walls.
- Where have you seen that word?
- What sound do you think it will start with?
- Do you see that word on our word wall?
- Say the word slowly. Stretch it out like a rubber band.
- Here are some books that you can read to yourself today.
- What else can you read besides books?
- Use this reading wand to walk around the room and read the walls.
- Use this reading wand to go on a word hunt for your name.
- You might want to write that down.
- That word is on the word wall so you can find it and write it here.

d. Uses materials (ongoing) such as:

- A range of reading materials (levels, genres) including magazines, menus, recipes, store flyers
- Reading materials that all members of a group can see
- Songs that are familiar to the children, written on chart paper
- Reading wands (any stick that is either plain or highly decorated that allows children to point to print in their environment)
- A wide range of writing material (paper, markers, envelopes) for independent use

e. Uses materials (specific) such as:

- Books that the children have read aloud with the teacher (often in a big book format)
- Charts of familiar stories or songs
- Written messages to the class that are preserved for rereading
- Books with key words highlighted
- Word walls within the classroom, listing thematic words
- Letter tiles
- Paper of different sizes and colors made available to children at all times
- Various writing tools such as pencils, pens, markers, crayons, mini chalkboards and chalk, note paper, post-it notes
3. Observation, Documentation, Assessment

It is important to provide students with opportunities to demonstrate their competencies and apply their knowledge and skills in meaningful ways. Use anecdotal observations/records to document evidence related to the following questions:

- Would you read this story out loud for me? (anticipating that the child will use the pictures to tell a story that co-relates to them)
- How many times is your name found in our classroom?
- Will you use the reading wand to point and read the names of other children in the room?
- In the Home Centre ask:
  - That the baby would stop crying if someone read her a story. Will you read the baby a story?
  - Do you think that a grocery list on the fridge would help when you go shopping?
- In the Doctor’s Office suggest:
  - The parents could read a story to the children while they wait for their turn to see the doctor. Will you read a story to the child while they wait?
  - Can the doctor write a prescription for the baby?

4. Inclusion Strategies

Special attention must be paid to ensure that children are being included in every learning experience from the moment they arrive at school until they leave. The inclusion strategies below can support your use of the learning experiences and games with children who might be excluded because of differences in language, behavior, communication, sensory sensitivities and/or physical abilities. Educators can apply and adapt the strategies below to meet the needs of students in each of the Language & Literacy learning experiences and games that follow.

<table>
<thead>
<tr>
<th>INCLUSIVE STRATEGIES</th>
<th>TEACHING SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Learners</td>
<td>- During shared reading, emphasize words that start with the same sound and identify the letters.</td>
</tr>
<tr>
<td></td>
<td>- Starting with children’s names allows all children access to the activity.</td>
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<tr>
<td></td>
<td>- When developing a list of words that start with a specific letter, accept words in other languages.</td>
</tr>
<tr>
<td></td>
<td>- Showing concrete items when possible or photographs instead of just words to help children get extra clues to what you are saying.</td>
</tr>
</tbody>
</table>
### INCLUSIVE STRATEGIES

- Pair a child learning English with an English speaking child to play. The exchange of information in both languages will benefit both children.
- Learn some words in the child’s first language, if possible.
- Provide time for children to form questions when engaged in shared reading experiences.
- Provide information books that have simple text and big pictures.
- Invite family members to provide dual language for some of the classroom books with phonetic English breakdown for the educators.
- Speak and use physical gestures to provide clues. For example, say: “I wonder what that is?” while hands are spread with a questioning look on your face.
- Acknowledge what the child is doing, such as saying, “You are digging in the sand.”
- Ask several English speaking children to respond before asking a child who is learning English. In that way the child can get an idea of what is happening.

### Behavior

- Encourage children to work with a friend when writing ideas.
- Acknowledge a child’s efforts to respond to questions/prompts.
- Provide one-on-one assistance with challenging activities.
- Provide physical support, such as holding a hand or guiding with a hand on the shoulder.
- Use calm tones when providing verbal support in stressful situations.
- Keep the learning experience short. If the child’s interest is waning but others want to continue, excuse the child after one item has been completed.
- Acknowledge the child’s contributions in the learning experiences. Consider using a turn-taking item (such as a “talking stick” or a puppet) so children know when it is their turn to contribute.
- Ensure children know the rules to avoid misunderstanding and anxiety.
- Work in small groups so the child receives appropriate attention.
- Start with items that allow success early on to engage the child, and then move to more challenging items.
- Make eye contact so they focus more closely.
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>▪ Place the child in close physical proximity to you so you can help maintain the child’s focus.</td>
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</tr>
<tr>
<td>▪ Ensure that all children get their turn in group games, including the child who has trouble controlling impulses. Participating should never be a prize for behaving well. Withholding it should never be a punishment for poor behavior.</td>
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</tr>
<tr>
<td>▪ Pair the child with a friend. Working with a partner will help the child to sustain interest longer.</td>
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<tr>
<td>▪ Redirect a child who is not able to participate successfully to another area of the room to engage in another learning experience or with another material that is soothing (sand, water, play dough).</td>
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</tbody>
</table>

**Communication**

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<thead>
<tr>
<th>Communication</th>
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<tbody>
<tr>
<td>▪ Explore different computer programs for some children. A computer may be the only way a child will be able to generate print.</td>
</tr>
<tr>
<td>▪ Encourage the use of drawings with simple labels to supplement writing attempts.</td>
</tr>
<tr>
<td>▪ Speak clearly.</td>
</tr>
<tr>
<td>▪ Use physical gestures to support what you are saying.</td>
</tr>
<tr>
<td>▪ Point to items to connect words with items.</td>
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<tr>
<td>▪ Provide time for the child to form words/phrases.</td>
</tr>
<tr>
<td>▪ Extend the children’s words. If the child says: “ball” you can reply by saying: “Throw the ball.”</td>
</tr>
<tr>
<td>▪ Use sign language to describe what to do. Sign language gestures can be found on the internet.</td>
</tr>
<tr>
<td>▪ Acknowledge the child’s gestures and spoken attempts.</td>
</tr>
<tr>
<td>▪ Provide time for the child to form words/phrases.</td>
</tr>
<tr>
<td>▪ Use Picture Exchange Communication symbols to help children tell you about their food, where they might travel to, their weekend story, and so on.</td>
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**Sensory**

<table>
<thead>
<tr>
<th>Sensory</th>
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<tbody>
<tr>
<td>▪ Use bigger pencils that are easier to grasp.</td>
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<tr>
<td>▪ Try hand over hand in exploration.</td>
</tr>
<tr>
<td>▪ Encourage the child to touch the objects you are using to support comprehension.</td>
</tr>
<tr>
<td>▪ Acknowledge the child’s efforts.</td>
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<tr>
<td>▪ Try a smaller group or head phones to reduce the noise if it is excessive in the larger group.</td>
</tr>
<tr>
<td>▪ Provide an item for a child to hold for comfort.</td>
</tr>
<tr>
<td>▪ Try items to assist children to sit on the larger group successfully – a cushion or a specified space on a mat.</td>
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</tbody>
</table>
### INCLUSIVE STRATEGIES | TEACHING SUGGESTIONS
---|---
- Try a weighted bag (like one from the drugstore to be heated and put around the neck) across a child’s lap to help the child settle while sitting.  
- Use fewer items to lower stimulation, if necessary, when playing.

**Physical**
- Make room at the reading area for children with special apparatus.  
- Check with family to be sure you can take a child out of a wheel chair for some learning experiences and hold them in your lap or use a floor corner chair with supports.  
- Provide different writing tools for children to work with. Start big then reduce the size.  
- Assist children to be part of the learning experiences and games, such involvement help other children see similarities in others rather than differences.  
- Use hand over hand to assist in exploration.  
- Provide a step in front of a chair to stabilize the child’s body in the chair.  
- Follow Occupational Therapy or Physical Therapy guidelines.  
- Pair the child with a physically able partner to assist in movement around the room.  
- Ensure that children with visual impairments have pictures described for them or that they have raised pictures. When possible use a three-dimensional item.  
- Be careful with terms that would only make sense to someone who can see: for example, calling something “red.” Try shape and size descriptors instead.  
- Pair children with an able friend to work together.

### 5. Strategies to Share with Families to Enable Them to Help Their Children

It is important to engage families to extend learning at home and support their child/children to develop **Language & Literacy Skill #5: Fluency**.

Families can:
- Support your child/children first attempts at writing which will be scribbling. Scribbling is an important to writing development as your child’s babbling was when they were learning to talk.  
- Model for children how to stretch out the sounds in words: ssss-aaa-t.
• Support children’s attempts at forming letter-shaped marks and know that this is a significant stage in developing writing skills.
• Model for your children the use of the written word. For many today, that means sending emails or text messages as a method of communicating.
• When reading to your child indicate the words by running your finger under the lines when you are reading aloud so that your child starts to recognize that words have a purpose.
• Make your child aware of print in their environment. Read those signs that are significant to the child or to your neighborhood.
• Connect functional print, such as signs and labels in the community, to information. Children do learn to recognize some familiar signs very early in life, for example, names of fast food restaurants and traffic signs.
Learning Experiences and Games

Due to the nature of Language & Literacy Skill #5: Fluency, the Learning Experiences and Games section looks different than for the other skills and steps. Fluency refers to the child's ability to read a text in a smooth, easy manner. It requires that children have integrated the other language and literacy skills and are able to recognize some words quickly (for example: the, is, and); predict some vocabulary quickly because of the pictures or because of the predictable language; and/or because the teacher has read the text previously with the child and it is now a familiar text. The appropriate teacher-initiated and teacher-guided learning experiences that ensure children understand and apply these reading skills are those introduced in the previous with the previous four Language & Literacy skills.

1. Child-initiated

Independent learning experiences that help young children to become fluent readers are those that allow children to apply their emerging literacy skills in authentic ways. These activities, in a play-based program would include:

- Reading the Walls – using a reading wand (pointer, decorated stick, wand, etc.) to point and read familiar signs, interesting word walls and charts that are posted on the classroom walls
- Choosing to reread the big books or charts that have been used for shared reading and are now familiar
- Choosing a book in the book corner and curling up on a cushion to look through the book and tell themselves the story through the pictures
- Writing independently, using the high frequency words that they have been learning and any teacher made resources that are intended as assistance
Critical Thinking Skills

1. Remembering

To think about something in an effective way, we first must build and then recall knowledge. Offering children opportunities to learn more about something they are interested in supports an inquisitive mind. It also provides learning experiences that build self-confidence in children as they become competent learners. Young children acquire knowledge in many ways but by seeing things from different perspectives, they will be thinking critically. Children should be encouraged to seek out more information and to consider where one might go to find out more information. Young children can be encouraged to do “research” to learn more. They can look in information books, examine something using different tools, or ask someone who they think will know more information.

Brainstorming encourages students to entertain how others perceive a topic and to realize that others have ideas and opinions. Giving children opportunities to practice effective brainstorming that is open and non-judgmental is an effective learning experience. Children can participate easily and with little risk in this skill.

2. Understanding

To become a critical thinker, an individual must believe that they are able to find the facts that will help them to understand an idea. Providing children with learning experiences that help them learn ways to validate information through information books, asking questions, and using technology can help them to build that confidence. In a way they become detectives. Children ask many questions to find out more about the world around them. However, asking good questions is a skill that children build when they are exposed to models of good questions. Teachers guide children to ask questions that lead to better understandings and to think more deeply about their learning.
3. Applying

Once a child has been able to gain information and develop beliefs about something, they can decide how to use or apply that information. They may do nothing with the information, plan on a way to share their information with others, change the way they do something… the possibilities are endless. It is important for children to have opportunities to take the knowledge they have accumulated and apply this information to a new idea or theory. Children generally find it exhilarating to apply their knowledge and this can build self-confidence.

4. Analyzing

Children are encouraged to consider a reason for something or explain how they have come to a conclusion based on what they know. They are asked to decide between information that they have acquired and an assumption that may be based on what they have heard and not on facts. While this may be an abstract concept to very young children, older PreK children can start to determine the reason that they think about something in a particular way. It also involves being able to break a concept into its component parts and understand how each part is related to another. By analyzing their own thinking, children are able to think critically and more efficiently.

5. Evaluating

We want children to learn how to evaluate the information they receive. Children will use a number of tactics to do this. They will confirm information with another trusted adult. Consider when a child will ask, “Miss, Danny says that it is okay for me to play with this toy? Is it?” When a child does this, they are checking information that does not seem quite right to them, for some reason. We want to encourage children to continue to question and prod further so that the truth they are building is informed.

6. Creating

Children are now able to synthesize all the information they have gathered and come to some final thoughts or product. Initially it is difficult to hold the information gathered from all the skills in their head but small steps will build these skills in critical thinking until they become second nature. By processing all the information they have gathered, children are able to create an original product that represents something new from the synthesis, or putting together, of those ideas.
**Problem-solving Steps**

1. **Understand the Problem**
   Helping children understand a problem that they are facing is first step in the problem-solving process. This helps a child see that they can have control over problems and need not be dependent on others to resolve them which can build self-confidence.

2. **Make a Plan**
   When we encourage children to make a plan for solving a problem we are encouraging the child to consider different possibilities as a means of determining the most effective solution.

3. **Carry out the Plan**
   Once a child makes a plan to solve a problem they can carry out the plan.

4. **Look back at the Solution**
   Children don’t always remember or follow their original plan. But whenever they engage in action to complete a task, they are implementing solutions. When children look back at their solutions, they must do an evaluation that considers not only the final outcome but the complete process as well. This means we want children to be able to break down their solution into parts and see what has gone before determines what happens next. Every attempted solution should be monitored to see if it is working.

**Language & Literacy Skill Areas**

1. **Vocabulary**
   Children naturally explore language to communicate thinking and build vocabulary. They use that vocabulary to describe personal experiences, talk about their thinking, to reflect, and to solve problems. Whenever children interact with others there is the potential for vocabulary building. Children learn approximately 8-10 words a day. With repeated exposure to a word, their understanding of the word and the concept deepens, allowing them to use language for a variety of purposes. Children with a large bank of words to draw on to express themselves will find it easier when they encounter these words in their reading or use them in their writing.
2. **Print Concepts**
   
   There are basic concepts of print that the emergent reader must be made aware of. These concepts include: reading in English is from the left to the right side of the pages, and from the top to the bottom; letters are clustered together to form words; and words remain constant (there is a specific way to spell words).

3. **Phonological Awareness**
   
   Phonological awareness is strictly about the sounds that the 26 letters in the alphabet make, either alone or in blends. Phonological awareness is the ability to hear and play with the smaller sounds in words. Children begin in infancy to hear different sounds. We know this by the way they imitate the sounds they hear such as “b-b-b-b" or “da-da-da-da.” As the different Language & Literacy skills develop together over time in the preschool years, we are able to observe that children begin to match the sounds they are familiar with to specific letters in the alphabet.

   Phonological awareness enables children to use sound-symbol correspondence to read and spell words. Understanding that a word is made up of phonemes is difficult because phonemes are abstract. Children have to move from understanding the meaning of language to taking words apart by sounds (not simply letters).

   Children develop phonological awareness as they segment, manipulate and blend spoken language in these ways:
   - Match sounds to words
   - Isolate a sound in a word
   - Blend individual sounds in a word
   - Substitute sounds in a word
   - Segment a word into its constituent sounds

4. **Phonics and Word Recognition**
   
   Letter knowledge is the recognition of the 26 letters of the alphabet and the ability to name them. Children cannot engage in conversations about letters and letter sounds without this knowledge. Phonics is the knowledge of the sounds that are represented by these letters and combinations of letters. Young children should also begin recognizing words that they will see frequently (high frequency words), beginning with their names.
5. Fluency

There are some words that recur in written language that are not easily sounded out (the, this, where, for example). When children are taught how to read these words by being exposed to them frequently and by using them in their writing, more of their reading and writing thinking can be devoted to decoding new and unfamiliar words. This allows the young reader to read more smoothly or fluently and it is much easier for them to make meaning from the text.

To begin this process, young children need to feel confident about their ability to read. The first step in this process is for the child to begin feeling like a reader and “pretend read” as many different kind of texts as they can.
Glossary of Terms

Assess – to record children’s development journey

Child-initiated - a learning experience that originates from and is guided by the child’s interest and involvement in a particular topic or material. Children at play are able to demonstrate and practice what they know and they love to challenge themselves to improve on their understandings. A strong play-based program provides children with a rich learning atmosphere.

Document – to record the process of a specific learning experience for the purpose of providing the children, their families and visitors a communication of that learning. This can be done with pictures, short anecdotes, graphs, audio recordings and video. A documentation is meant to be shared.

Engagement – 1. The teacher’s role to draw a child into a learning experience or a family into the program. 2. A child’s full participation in a learning experience in the program.

English Language Learner – a child whose first language is not English but who is now learning English

Inclusion – ensuring that all members of a community are welcomed into a program and that steps are taken to allow full participation

Learning Experience – an opportunity for children to engage with a material and/or other children to discover, explore, learn from or master a relevant piece of information by making meaning of it themselves

Observe – a fundamental action of all educators in understanding the children they work with by watching how they play, interact and construct their knowledge of the world they live in

Open-ended – a learning experience or question that does not have a predetermined answer or ending but rather allows a child to attach relevant meaning on his/her terms
**Play-based** – a learning program for young children that grounds itself in children’s innate ability to play in order to manipulate, master and make meaning of information and materials.

**Phonics** - builds on the foundations of phonological awareness, helping students to connect the sounds they hear with the print they see on the page in order to make meaning. Phonics instruction focuses on the relationship between letters (graphemes) in written language and the sounds (phonemes) in spoken language. It involves teaching students how to use their knowledge of letter-sound relationships to read and spell words.

**Phonological Awareness** - refers to the ability to focus on and manipulate not only phonemes, but larger spoken units such as syllables and words. Phonological awareness activities include segmenting sentences into words, segmenting words into syllable, and blending syllables to make new words.

**Prompt** – to support a child’s learning with a little support by providing a small piece of information

**Self-Regulation** – a goal in a child’s development to have control over one’s actions and behavior

**Teacher-guided** – learning experiences & games that require the educator to pay closer attention to the specific learning needs of a small group of students. Many of the teacher-initiated activities could, with modification or tighter selection criteria, be used with a small group.

**Teacher-initiated** – learning experiences & games that are more aligned to whole class participation and would be planned by the teacher. The selection of activities is based on what the whole class might be interested in or ready for so their focus is on general learning and not as focused as teacher-guided.

**Word wall** – a wall in the learning environment located in the writing area that displays frequently used words or favorite words generated by the children. The purpose is to assist children in early writing attempts. Often housed in a clear hanging organizer with individual words written on individual 3"x5" cards.


**Internet sources**

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