



# Reflection Puzzles

Standard Connection:  
 ELA.SL.PK4.6  
 M.CC.PK4.5a  
 M.MD.PK4.3  
 S.PS.PK4.2  
 PD.GM.PK4.3  
 PD.FM.PK4.2  
 VA.PR6a.1.PK

**Enduring Understanding(s):**

- Light affects people, animals, and things.

**Essential Question(s):**

- How does light affect the way things look?

Materials	Vocabulary	Books
<ul style="list-style-type: none"> <li>• <i>Play with Me</i></li> <li>• <i>Raccoon on His Own</i></li> <li>• <i>Kitten's First Full Moon</i></li> <li>• images of reflections (see Resource)</li> <li>• poster or tag board</li> <li>• Ziploc bags</li> <li>• basket or box to store puzzles</li> <li>• trays</li> </ul>	<p><b>light:</b> a type of energy that makes it possible for us to see</p> <p><b>reflection:</b> an image that bounces off a surface</p> <p><b>shone:</b> past tense of shine</p> <p><b>solve:</b> to find an answer/solution</p> <p><b>surface:</b> the outer layer of an object</p>	

Intro to Centers	
<b>Preparation: Set up materials</b>	
<p>“In <i>Play with Me</i>, <i>Raccoon on His Own</i>, and <i>Kitten's First Full Moon</i>, the girl, the raccoon, and the kitten saw their <b>reflections</b>. What do you notice?”</p>	<p>Show illustrations. <b>Children respond.</b></p>
<p>“<b>Light</b> from the sun and moon shone on the <b>surface</b> of the water and created a <b>reflection</b>. Today in Puzzles (Manipulatives), you can <b>solve reflection</b> puzzles.”</p>	<p>Show materials.</p>
<p>“We solved this puzzle of a _____. What do you notice?”</p>	<p>Model. <b>Children respond.</b></p>
<p>“How is the <b>reflection</b> in this puzzle similar to or different from the <b>reflections</b> in <i>Play with Me/Raccoon on His Own/Kitten's First Full Moon</i>?”</p>	<p><b>Children respond.</b></p>

### **During Centers:**

Encourage children to describe their puzzle-solving strategies (if they put all the edge pieces together first). Encourage children to count the number of pieces in the puzzles. Scaffold puzzle-solving by providing images of completed puzzles for children to refer to.

### **Guiding Questions During Centers:**

- What strategy did you use to solve your puzzle?
- How is your puzzle similar to or different from your friend's puzzle?
- How are the reflections in these puzzles similar to or different from the reflections you created in *Mylar/Mirror* and *Blocks*?
- Was the light source that created this reflection natural or artificial? How do you know?

### **Thinking and Feedback:**

Invite children to share their processes. Encourage children to describe the challenges they might have encountered.

### **Documentation:**

Collect samples of the children's work as well as photographs and/or video of their process; use the documentation to launch a discussion during Thinking and Feedback.

### **Provocation:**

Create reflection puzzles from children's *Woodland/Swamp Research*. Attach magnet tape/Velcro to puzzle pieces so children can solve puzzles on a vertical surface, such as a magnet board, easel, etc., and use them as backdrops to *Blocks/Dramatic Play*.

### **Differentiation/Accommodation:**

For Intro to Centers, children with limited verbal skills can use a pre-programmed voice output device to answer questions about the story. (Keep in mind these will likely be closed-ended questions, as those are easiest to program into devices.) This can also be used to help students answer Guiding Questions. During Centers, have a range of number of puzzle pieces, i.e., some puzzles with five pieces, some with seven, etc. to match children's level of challenge.