



Reflections in Water

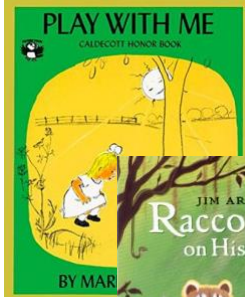
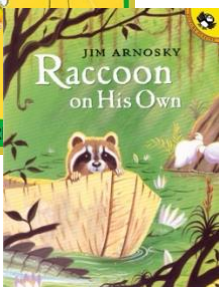
Standard Connection:
ELA.L.PK4.5c
ELA.W.PK4.1c
S.PS.PK4.1
S.T.PK4.1
VA.RE7a.2.PK

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"> • <i>Raccoon on His Own</i> • <i>Play with Me</i> • reflective material (Mylar, tin foil) to line bottom and sides of the Science Table • images of reflections in water (see Resource) • Beautiful Stuff • flashlights 	<p>pond: small area of still, fresh water</p> <p>reflection: an image that you can see in a mirror or in glass or water</p> <p>shiny: smooth/glossy surface</p> <p>sunlight: the light of the sun</p> <p>surface: the outside of an object</p> <p>swamp: area of land with trees that is always wet</p>	 

Intro to Centers	
Preparation: <i>Set up materials</i>	
<p>"In <i>Raccoon on His Own</i>, the raccoon saw his reflection in the water as he drifted in the swamp. In <i>Play with Me</i>, the girl sat still, very still, and saw her reflection in the pond. What do you notice?"</p>	<p>Show illustrations. Children respond.</p>
<p>"How is the raccoon's reflection the same as or different from the girl's reflection?"</p>	<p>Children respond.</p>
<p>"Today in Science, you can experiment with making reflections in water. The surface of the table is lined with shiny material. What do you notice?"</p>	<p>Show materials. Children respond.</p>

During Centers:

Encourage children to compare and contrast the reflections created using different materials. Encourage children to experiment with shining light on objects from different positions. Encourage children to observe what happens when two or more reflections overlap or touch. Compare and contrast the reflections in Science to the illustrations in *Play with Me* and *Raccoon on His Own*. Encourage children to draw and label pictures of the reflections.

Guiding Questions During Centers:

- What happens to an object's reflection when you shine light close to/far away from/at an angle on the object?
- How is an object's reflection on the bottom of the Science Table similar to or different from its reflection on the side of the table?
- What do you predict will happen if you shine a light on two objects/ materials next to/on top of each other?
- How are the reflections in the Science Table similar to or different from the raccoon's reflection and/or the girl's reflection?

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 of their processes; use the documentation to launch a discussion during Thinking and Feedback.

Provocation:

Encourage children to create and document reflections throughout the classroom/school.

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, allow the children to work together to hold the light and make observations. Provide a variety of materials for children to draw and label pictures of the reflections.