



Ice Melting

Standard Connection:

- ELA.RL.PK4.4a
- ELA.W.PK4.1b
- M.CC.PK4.1
- M.CC.PK4.2
- S.PS.PK4.2
- PD.FM.PK4.2
- PD.FM.PK4.4

Enduring Understanding(s):

- Weather affects living things.

Essential Question(s):

- How do living things work together to solve problems and accomplish goals?

Materials	Vocabulary	Books
<ul style="list-style-type: none"> • <i>The Snowy Day</i> • ice molds (muffin tins, pie pan, small paper or plastic cups, etc.) • small objects frozen in ice • images of ice formations (see Resource) <ul style="list-style-type: none"> • magnifying glasses • spray bottles with warm water • gloves • table salt • salt grinder • clipboard • paper • writing utensils 	<p>melt: change from a solid to a liquid</p> <p>ice: frozen water</p> <p>frozen: changed from a liquid to a solid</p> <p>experiment: try something</p>	

Intro to Centers	
Preparation: Set up materials.	
“In <i>The Snowy Day</i> , Peter brought a snowball inside. What do you notice?”	Show illustrations. Children respond.
“Why did Peter’s snowball melt ?”	Children respond.
“In Let’s Find Out About It, we experimented with melting ice . Today in Science, you can continue experimenting with melting ice with these materials. What do you notice?”	Show materials. Children respond.
“You can melt the ice around these frozen objects. How can you melt ice ?”	Children respond.

During Centers:

Encourage children to compare and contrast different methods for melting ice. Encourage children to record the results of their ice-melting experiments in Creative Writing. Encourage children to observe whether their ice or their friends' ice is melting slower or faster. Encourage children to notice whose ice is larger or smaller, and to consider why. Encourage children to examine ice with magnifying glasses, pointing out ice crystals.

Guiding Questions During Centers:

- What method melted the ice fastest? Why?
- How is the ice in Science similar to or different from Peter's snowball in *The Snowy Day*?
- How is ice helpful to people?
- What other things melt like ice?

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 use liquid watercolors and/or food coloring and to use what they learned in Color Mixing to create colored ice. Conduct an experiment to see what melts faster - snow or ice.

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 children to use a variety of writing materials to record their results in Creative Writing. Provide support to children who need help making and recording observations.