



Sciencenter at Home: Using Tools and Melting Ice

Rescue a toy stuck in ice!

In this activity, learners will experiment with different tools and materials that can melt and change ice.

Materials:

- Salt
- Spoon
- Dropper
- Warm water
- Tweezers
- Ice cube tray or small cups
- Small freezable toys
- Tray, bowl, or plate to work in



Try this:

In advance of the activity, freeze the small toys in ice cubes

You can also have just as much fun doing this activity with regular ice!

Set out all the tools and materials in reach of your child. Give them the ice cube and allow the learner to investigate. Ask guiding questions like:

- What do you feel?
- What do you think the dropper does?
- What can you use the spoon for?

Encourage your child to melt the ice cube and “rescue” the toy. If they need direction, ask questions like:

- Do you think the salt will change the ice? How can we find out?
- Can you move the water with the dropper?



Parallel play! Work on your own ice cube alongside your child and let them see how you approach the problem.

While you may have end goal for this activity, your child may end up focusing on tools or techniques like pouring liquid, using a dropper, or stirring the salt. Allow your child to set the pace and guide exploration.

Change it up!

Depending on the age and need of your child, this activity may look different. This is an open-ended and sensory activity. There is no wrong way to use these tools!

Here are some activity extensions and adaptations:

- Use multiple cups and practice moving water around.
- Experiment with other substances like sugar, sand, or baking soda. Does this change how the ice melts?
- Add color to your ice and/or salt!
- Repetition is your friend!

Science process skills

This activity focuses on building the skills to participate in science over the science content itself. In this activity, we focus on skills like using tools and making observations as your child melts ice.

We observe objects and events using our senses. While observations made only with the senses are qualitative, they help us gather information and learn about the world. Building observations skills help children expand on other science process skills like categorizing and making predictions. When guiding your child through this activity, continuously draw their attention to the materials as the ice melts or the salt dissolves. Prompt them to make observations about these changes.

Tools are considered technology, as a tool is an item that helps us complete a task. Using tools and technology is crucial to expanding our skills. Tools like droppers, scoopers, and tweezers allow children to experiment and problem solve as they melt the ice. When guiding your child through this activity, try demonstrating how to use the tools through parallel play or hand over hand.

This activity exists in many versions. This adaptation was inspired by Using Tools: Exploring Ice from the Collaborative for Early Science Learning copyright 2021, Sciencenter, Ithaca NY.
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