ICE CUBE ART

LEARN ABOUT MELTING BY TURNING ICE INTO ART!

Episode: "A Jump to Remember" (11 min.)

Nature Cat is trying to get into the Animal Book of World Records as a champion animal snow ski jumper. But there is just one slight problem: there is no snow on the ground on this winter's day! When all seems lost, the gang has an idea – can they create their own snow? Tally ho!

Episode curriculum goal: For snow to fall, you need the right amount of moisture and freezing temperatures.

Clips on PBSKids.org: "We're Making it Snow!"
*To view clips, visit PBSKids.org/video, click on Nature Cat and select Browse.

Goal of Activity:

Discover how salt causes ice to melt.
Food coloring will help you see it!

The Basics:

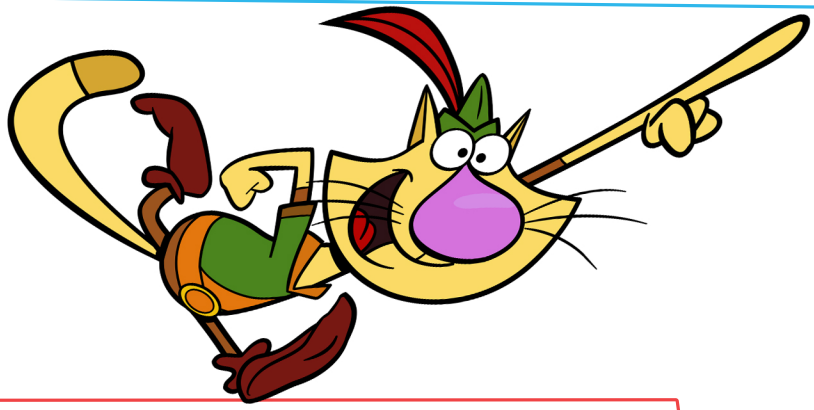
Number of children: Any number. Younger children may need help from an adult.

Space: A table with clear workspace.

Time: Approx. 15-30 minutes.

What You'll Need:

- Ice cubes (at least one per child)
- Food coloring (dark colors work best)
- Salt
- Tray or baking dish (something with a lip to contain the melting ice!)
- Table covering to protect your workspace
- Optional: Flashlight



Preparation (before children arrive):

- Prepare the space as you would for any craft activity or project. Cover table to protect workspace and lay out materials.

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Tally Ho! What to Do:

- Explain to children that they'll be using ice, salt, and food coloring to make a science experiment and an art project at the same time!
- Sprinkle a generous amount of salt on top of each ice cube. Spend a few minutes observing what's happening. Does the salt seem to be doing anything to the ice?
- After a few minutes, you should see some crevasses starting to form in the ice from the salt. Add a few drops of different colors of food coloring onto the surface of the ice block. Watch as the food coloring seeps into the ice. Can you trace the paths of the tunnels through the ice?
- Optional: Shine a flashlight on the ice (from above or from behind) to get a better look at the tunnels and colors inside the ice.
- While your ice art continues to form, spend a few minutes talking about what salt does to ice. Explain to children that salt makes ice melt at a colder temperature than usual, so the parts of the ice cube that touch the salt melt before the other parts. (That's also why we put salt on streets and sidewalks when it snows.)
- After about 15-20 minutes, the tunnels and colors should run all the way through the ice. Make observations about what happened to the ice and the food coloring. (The color is beautiful on its own, but the educational reason for the food coloring is to highlight the crevasses and tunnels that form as the salt melts the ice.)

Onward and Yonward! Take It Further:

Things to talk about: Ask children if their ice sculptures remind them of anything they've seen in nature. You might discuss icicles that form on the edge of a roof, frozen lakes and ponds, glaciers and icebergs, etc.

Look in a Book:

To learn more about ice, check your local library for books like these:

- Geisert, Arthur. **Ice.** Enchanted Lion Books, 2011.
- Obed, Ellen Bryan. **Twelve Kinds of Ice.** HMH Books for Young Readers, 2015.
- Frost, Helen. **Water as a Solid.** Capstone Press, 1999.