



Take It Outside: Winter

STEM: Nice Ice

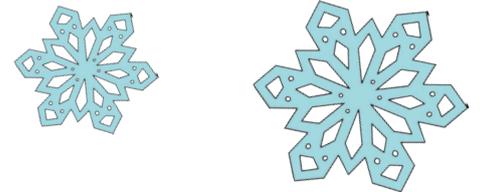


Introduction

Brrr...It can be cold in winter! Take STEM outside to conduct some ice experiments. What happens to water when it gets cold? Try this great changing states investigation, which will decorate your outdoor space with 'nice ice'.

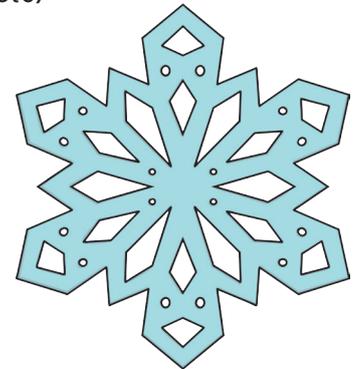
You will need:

- Water
- String
- Ice cube trays or a container (yogurt pot, balloon, paper cup, etc)



Key Questions

- What do you think will happen to the water?
- Why does the water change?
- How will the object escape from the ice?
- Will the ice change back to water? How?



What to do:

1. Go on a winter walk to explore your outside area. Collect interesting natural materials as you go. You may wish to use these [Winter Hunt](#) and [Winter Snow](#) checklists to help focus your exploration.
2. Place your natural materials into the tray or container and cover completely with water.
3. Add a length of string to the water, making sure it touches the bottom of the tray or container.
4. Leave outside overnight. What do you think will happen during the cold night? Will the water change? Why?
5. In the morning, carefully take the ice out. Use the string to hang your 'nice ice' from trees and bushes.
6. Do you think the ice will stay frozen? What might cause the shapes to change? What is this process called? What is happening?
7. How long do you think it will take to melt?



Ways to Support

Try photographing the ice shapes to record changes over time. How does the ice feel when frozen? How does it feel when it is melting?

Ways to Extend

Measure the temperature outside. At what temperature will water freeze? When does it start to melt?

Curriculum links

Science: Observe and describe seasonal changes including the weather associated with them.