Ice Explorations

Water is a unique substance!

Water is the only substance that we experience in its different solid (ice), liquid, and gaseous (water vapor) forms nearly every day.

This activity is designed to help your child investigate the properties of water and ice. More important than getting the right answers is getting the chance to explore, observe, and use science tools.

What You Need:
- Two similar square or rectangular plastic containers, at least a quart each
- Water to fill the containers ¾ full
- Investigation tools, such as a magnifying glass, magnet, thermometer, flash lights, spoon
- An investigation sheet and pencil or marker

What To Do:
- Fill one of the containers with water and freeze over night.
- Prompt your child’s exploration with the questions on the investigation sheet. Assist them in noting their observations.
- When your child is finished, ask him or her to share with you what ice is, and some of its characteristics or properties.
- Where might we find the right conditions to have ice in our solar system?
### Investigation Sheet

<table>
<thead>
<tr>
<th>Scientist’s Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject of Investigation: Water</strong></td>
<td><strong>Subject of Investigation: Ice!</strong></td>
</tr>
<tr>
<td>Shape:</td>
<td>Shape:</td>
</tr>
<tr>
<td>Color:</td>
<td>Color:</td>
</tr>
<tr>
<td>Feel:</td>
<td>Feel:</td>
</tr>
<tr>
<td>Temperature:</td>
<td>Temperature:</td>
</tr>
<tr>
<td>Is it magnetic?</td>
<td>Is it magnetic?</td>
</tr>
</tbody>
</table>

![Microscopic Observations](image) ![Microscopic Observations](image)

When ice gets warm, it changes state and becomes what? Do you observe this happening here?

What does liquid water become when it freezes? What do we need to do to make it freeze?

What does ice “like?” What does it need to exist as ice? Where might we find ice in our solar system?