



## SALTY COOLER

### SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

### INGREDIENTS

- Salt
- Cooler
- Ice
- Water
- Digital Thermometer

### INSTRUCTIONS

**STEP 1:** Fill the cooler half of the way with ice and cold water. Describe the ice water by using its observable properties. Using the digital thermometer, make measurements to identify the ice water based on its properties.

**STEP 2:** Add one cup of salt to the ice water, mix, and observe. Describe the ice water by using its observable properties. Using the digital thermometer, make measurements to identify the ice water based on its properties. Did the water get colder after the salt was added?

### EXPLANATION

Once the salt is added, the temperature of the ice water drops. The salt lowers the freezing point of water. Basically, salt allows water to exist at a liquid below 32°F or 0°C.



### SCIENCE BACKGROUND

Matter is anything that has mass and takes up space. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. Measurements of a variety of properties can be used to identify materials. Different properties are suited to different purposes.

### I CAN STATEMENT

- ✓ I can plan and conduct an investigation to describe and classify different kinds of matter by their observable properties.
- ✓ I can make observations and measurements to identify materials based on their properties.

### NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter  
5 – Structure and Properties of Matter

