

# Freezing Water

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**Problem:** Written in the form of a question?

Will adding salt cause water to freeze at a lower temperature?

**Hypothesis:** I predict.....

The more salt added to water the lower the temperature before it freezes.

**Materials:** List of materials used.

(3) One quart container

Thermometer

Tap water

Freezer

Salt

Stopwatch / Clock

**Procedures:** (A numbered step by step list of procedures of what you are going to do.)

1. Fill 3 one quart containers with two pints of tap water each
2. Add  $\frac{1}{4}$  salt to one and  $\frac{1}{2}$  cup to the second
3. Place the containers in the freezer
4. Check every 15 minutes and take a temperature reading of the water in each container.
5. Continue step 4 until all containers are beginning to freeze or have frozen.
6. Record the data.

**Variables:**

**Manipulated Variable:**

The amount of salt in the water

**Responding Variable:**

Temperature of the water when it begins to freeze

**Control Variables: (at least 3)**

Container, water, thermometer, freezer, clock

**Bibliography:** (List of 5 websites or resources you used.)

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<http://discoverer.prod.sirs.com/discoweb/disco/do/article?urn=urn%3Asirs%3AUS%3BARTICLE%3BART%3B0000186155>

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