**Required Training**

UC Lab Safety Fundamentals

**Required PPE**

Lab coat, safety glasses/goggles, nitrile gloves

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**Equipment**

- Glass baking dish
- String, 20 cm long
- 200 mL Water
- 250 ml Beaker

**Chemicals**

- Ice
- 10 g Sodium Chloride, NaCl

**Procedure:**

**I. Method 1**

1. Make a large block of ice a few days ahead of time
2. Transfer ice to a glass baking dish right before the demo
3. Pour some NaCl onto one area of the ice surface
4. The ice will start to melt and form a puddle/hole where the ice was poured

**II. Method 2**

1. Place an ice cube of any size in a beaker of water
2. Wet the string and lay across the floating ice cube
3. Pour some NaCl on top of the string
4. After a few seconds the string will freeze to the ice cube and you can lift the ice cube by holding both ends of the string.

**Discussion:**

The melting point of pure water is 0° C. As the salt dissolves into the ice, the melting point is lowered below 0° C causing it to melt faster. Because the phase change from solid to liquid can only occur at the melting point, the temperature on the ice surface drops below 0° C. This causes the water in the string to freeze to the ice cube slowing the cube to be lifted.
Hazards:
N/A

SOP
N/A

Disposal (by Storeroom)
The ice, water, and ice can all be flushed down the drain.