Ice Sculptures

Experiment with different states of matter and use your creativity to make your own ice sculpture.

Fun Facts/Information:

- Water can be 3 states of matter: Solid (ice), liquid or gas (vapor).
- The freezing point of water is 32 degrees Fahrenheit.
- Salt is made from mining or by evaporating sea water.
- Salt lowers the freezing point of ice.

Objectives:

- Demonstrate an understanding of basic changes to properties of matter.
- Describe the interaction between salt and ice.
- Describe the interaction between water and ice.
- Use creativity to make an ice sculpture.

Materials:

- Ice cube trays /Ice cubes
- Ice Cylinder formed from plastic container (ex: yogurt container)
- Spray bottle with water
- Saltshaker
- Large tray/baking sheet
- Hand towel
- Paper towels

Procedure:

Safety Considerations:

- Be mindful when handling ice. The ice cube by itself cannot cause frostbite, but can cause some cold fingers!
- Salt lowers the temperature of ice. Holding an ice cube with a layer of salt on your hand CAN result in frostbite. Make sure that your hands are free of salt while handling the ice cubes.

(cont'd)

Activity Preparation:

- Freeze ice cube molds and plastic container with water.
- Keep hand towel nearby to warm up hands.
- Keep paper towels nearby for clean up.

1. Set up the tray to use as your workstation.
2. Remove ice from the containers and place them on the tray.
3. Try pressing two pieces of ice together; Observe what happens.
4. Spray the ice with water.
5. Press two ice cubes together; Observe what happens.
6. Sprinkle an ice cube with salt.
7. Try sticking it to another piece of ice; Observe what happens.
8. Use what you learned with the interactions of salt, water, and ice to make an ice sculpture.

Discussion Questions:

- What happens when an ice cube is held in your hands? Does it melt faster or slower?
- What happens when you spray the ice with water? Does it melt faster or slower than when you were holding it?
- What happens when you press ice against another piece of ice and then let it go?
- What happens when you spray the ice with water then press it to another piece of ice?
- Which way does ice melt the fastest?
- What happens when salt is added to ice?

Follow-Up/Extensions:

- Share what you observed and the sculptures you created.

For more activities, please visit us at www.alcosan.org/educational-activities.