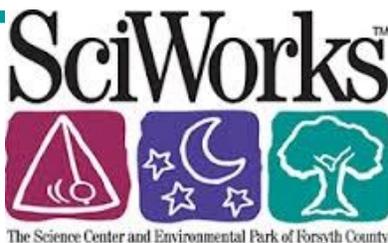


The Melting Pot



K-5

PRE-VISIT ACTIVITY

Teacher Information

Solids, Liquids, and Gases

If your students were a molecules in a solid, they would be packed tightly together like bricks in a wall. That's why solids keep their shape, even when moved.

Heat up a solid and the bonds between the molecules break up, causing it to melt into a liquid. Liquid molecules aren't so crowded. They can wander, but not too far from each other. They would be bumping into each other all the time. That's why liquids flow and take the shape of their container.

When a liquid heats up, molecules move so rapidly that they break away and become a gas. Life as a gas molecule might get lonely, because they are always on the move and stay far apart from each other.

Phase Change Game

This activity needs some open space. Your students are molecules of matter changing phase. First, have them cluster together and hold still. They are a rigid solid. Now have them make flowing movements as they become a sloshy liquid while still staying close together. Next, have them dart all around the room, moving further apart from each other, behaving like gas molecules.

More to do: Add music to the mix. When the song changes, the students change phase.

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K-5

AFTER VISIT ACTIVITY

Painting with Crystals

Crystallization is a fun process to observe. In science speak, it is the formation of solid crystals from a homogeneous solution—essentially a solid-liquid separation.

Salt crystals can be produced from a salt/water mixture as it cools and the water from the solution evaporates. It takes a while to happen, but can be exciting for students to see their previously “invisible” words or pictures appear in the form of crystals.

Materials:

Epsom Salt (Magnesium sulfate)
Very HOT water
Measuring spoons
Small cups
Dark-colored construction paper
Paintbrushes



Steps:

- 1.) Mix equal parts hot water (may need to heat the water in a microwave or on a hot plate) and Epsom salt, stirring for two minutes or until salt is dissolved.
- 2.) Divide solution into cups for students to use as paint on dark paper. It will look like they are making a “wet” paintings at first.
- 3.) As the painting dries, the crystals will begin to form. The crystallization process can take several hours.