

## Activity Station Descriptions

Activity stations are good for informal settings like a science fair or science carnival. Students (in groups of 25) spend approx. 15- 20 minutes at an activity station. Multiple stations can be set up in one location for multiple hours. Under each activity the highlights of the activities are bulleted.

**Electricity-** This is all about static electricity. Children can experiment with static sticks and we prepare demonstrations with the Van de Graaff generator.

- Talk about Static electricity. Take a balloon and rub it on your shirt or a volunteer's sweater and ask for a volunteer to hold up to their hair. What is happening?
- Pass out static sticks and cloths to students. What do you notice? What's happening?
- Show students the Van de Graaff generator. Using the discharge wand show students how static electricity/lightening is produced. Continue with static wand sticks, Styrofoam pieces, pie pans & volunteer.

**Dry Ice-** Discuss states of matter. Call up volunteers to do experiments with dry ice.

- Explain what dry ice is- frozen carbon dioxide. Very cold, which is why I wear gloves to protect my hands. Used by fisherman, campers and for shipping perishable foods.
- Place Quarters in the dry ice- they shiver. Escaping gas causes the quarters to move back & forth.
- Spoons- Place the head of the spoon over the openings created by the quarters- what happens? Why is that sound produced?
- Rainbow reaction-

**Hovercraft-** Discuss the principals of riding on a cushion of air. Give Hovercraft rides.

- Go over the logistics of building a hovercraft- Wood, plastic with holes strategically placed and place for leaf blower.
- Air being forced downward causes the hovercraft to rise above the ground, allowing participant to float on a cushion of air.
- Newton's Third Law- for every action = and opposite reaction. Principle of thrust.

**Polymers-** Discuss how polymers are made by cross linking molecules and showing a variety of polymers. For additional \$25.00 kids can make and take home silly putty.

- Polymer bead demo- helps explain what are polymers?
- Silly putty.
- 3 Cup Monte- Sodium polyacrylate- diaper gel.
- Inst- Grow snow.
- Slime.

**Air Pressure-** Bernoulli blower- learn the principal of a plane staying in flight. Float a ball over the Bernoulli blower and try to get it through the hoop.

- Students will notice the beach ball stays in mid air, appearing to float. Talk about air pressure & how planes are able to stay in flight.
- Challenge students to try and get ball through hoop.
- While students are waiting for their turn, they can make a heli-flyer to take home.

**Bubbles-** Learn why bubbles behave the way they do. Investigate no-pop, helium, dry ice and methane bubbles (Optional)

- Make big bubbles and explain why they are round, what is inside and outside and why they float.
- Call up volunteers to hold a no-pop bubble.
- Helium Bubbles & Dry Ice Bubbles.
- Make bubble wand and take home bubble recipe.

**Ultra Violet Beads-** Learn about the invisible spectrum using special UV beads. Additional Fee \$25.00 for UV bead bracelet that kids make.

- Explain the difference between the visible and invisible spectrum.
- Why are UV rays harmful? What do we do to protect? Eyes & skin.
- Let the students investigate different sunscreens & dollar store sunglasses with UV lights.
- Show students the ultraviolet beads and let them place them under lights.