Children are concrete learners so showing them something works better than telling them. Children also like to get messy. And if adults can connect with children while learning and having fun both, then everyone is a winner! Here are some ideas for all of these reasons.

**Goo**

**Need:** Cornstarch (available at the grocery store), Water, bowl or dish

This is a very messy experiment - but it cleans up really easily. Go somewhere that you can make a bit of a mess, and do this:

- Put some cornstarch in the bowl.
- Add water, slowly. As you add the water, stir the water into the cornstarch. Don't use a spoon - use your hands to do this. This is part of the fun, and you will also be able to tell when you have put in enough water!

The key is to add just enough water so that the cornstarch and water mix will flow very, very slowly. Now you have something, which is very strange goo indeed. If you walk fast enough, you can actually walk on it:

But if you pour it, it will flow like water! Here are some things to try:

- Smack it! If you hit the mixture really hard, it might even break.
- Pour it from hand to hand. If you go slowly, it will pour freely.
- Roll it into a ball. If you keep rolling, you can roll it into a nice ball. Of course, as soon as you stop rolling, it will ooze and turn back into a puddle.
- Bounce it! If you get the right consistency, you can even bounce a ball of this goo!

**Dancing Raisins**

Make raisins dance in front of your eyes using nothing more sophisticated than some fizz.

Gently pour the fizzy drink into your glass. Add a few raisins. Watch and enjoy!

Little Video - [http://www.thenakedscientists.com/HTML/content/kitchenscience/exp/dancing-raisins/](http://www.thenakedscientists.com/HTML/content/kitchenscience/exp/dancing-raisins/
**Mini Ocean**

Fill a clear plastic liter bottle 3/4 full with water. Add blue food coloring then add cooking oil. Leave about 1 inch at the top of the bottle. Show preschool children how the oil and water do not mix. Tilting the bottle back and forth causes a wave effect.

**Run Away Pepper**

A great science demonstration. Sprinkle pepper over the top of a cup of water. Put a dab of soap on your finger and touch the center of the pepper. Show children how the soap repels the pepper to the side of the glass.

**Dinosaur Bone Hunt**

Boil and clean chicken bones. Be sure there are no sharp edges. Bury them in a sand box for the children to find.

**Sun Painting**

Place various shaped flat objects on a dark piece of construction paper. You can cut out shapes and designs or use common objects like a ruler or key. Place paper in direct sunlight for a few hours. Show children how the sunlight faded the paper, leaving dark silhouettes.

**Popcorn Dance**

Fill small a glass jar 3/4 full of water. Mix in 2 tablespoons of baking soda and mix well. Add a drop or two of food coloring and 10 to 15 popcorn kernels. Then add a few drops of vinegar. The kernels will start to move in one or two minutes.

**Ice Magic**

Fill a glass with water and add one ice cube. Let a child lay a piece of string across the ice and try to pick up the ice with the string. Sprinkle a little salt over the ice cube, count to 10 and have child try again. Show child how the salt melted the ice just enough to bond around the string.

**Volcano!**

Place an empty baby food jar on a tray. Surround the jar with play dough. Form the dough to look like a mountain. Put a drop of red food coloring and a tablespoon of baking soda in the jar. Then add some vinegar to it to make it erupt.

**Invisible Ink**

Using a cotton swap or paintbrush, let children write messages or paint designs on white typing paper with lemon juice. Let dry. The adult is to hold the paper close to a light bulb until the writing becomes visible by turning brown.
Backyard Volcano

Materials needed:
- Baking pan
- Soda bottle (16 or 20 oz.)
- Moist soil
- 1 tablespoon baking soda
- 1 cup vinegar
- Red food coloring
- The great outdoors!

Step One: Place the baking pan on the grass, and set the soda bottle in the middle of the pan.

Step Two: Mound and shape the moist soil around the bottle to form a mountain. Bring the soil right up to the top of the bottle's opening, but don't get the soil inside the bottle.

Step Three: Pour one tablespoon of baking soda into the bottle.

Step Four: Color one cup of vinegar with red food coloring.

Step Five: Pour the colored vinegar into the bottle. Stand back and watch red foam spray out of the top and down the mountain like lava from a volcano.

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