



DISSOLVING STYROFOAM



SCIENCE BACKGROUND

Matter is anything that has mass and takes up space. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. Matter of any type can be subdivide into particles that are too small to see, but even then the matter still exists and can be detected by other means.

I CAN STATEMENT

- ✓ I can plan and conduct an investigation to describe and classify different kinds of matter by their observable properties.
- ✓ I can develop a model to describe that matter is made of particles too small to be seen.

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a **CHOKING HAZARD**. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- Styrofoam Cups
- Acetone
- Disposable Gloves
- Pie Pan

INSTRUCTIONS

STEP 1: Place the disposable gloves on your hands and then pour 1 cup of acetone into the pie pan.

STEP 2: Place the Styrofoam cups into the pie pan of acetone and observe. Describe and classify the Styrofoam cups, before and after placing them into the pie pan of acetone, by their observable properties. Develop a model to describe how the Styrofoam cups are made of particles too small to be seen.

EXPLANATION

The acetone is a solvent that easily dissolves the bonds between the polymers, which make up the Styrofoam cups.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter
5 – Structure and Properties of Matter

