



MASHING MATTER

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

- Bicycle Pump with Rubber Stopper
- 1 Liter Clear Plastic Bottle
- Bean Bag Filler

INSTRUCTIONS

STEP 1: Completely fill the clear plastic bottle with bean bag filler. Describe the bean bag filler by using its observable properties.

STEP 2: Attach the pump to the rubber stopper. Attach the rubber stopper to the clear plastic bottle.

STEP 3: Pump the bicycle pump five times and observe. Remove the stopper and observe. Describe how the clear plastic bottle can be used as a model to describe how matter is made of particles too small to be seen.

EXPLANATION

Pumping air into the clear plastic bottle, increases the air pressure inside the bottle, squashing the bean bag filler. Once the rubber stopper is removed, the air rushes out, allowing the squashed bean bag filler to expand.



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.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

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

