



CLOUD LAUNCHER

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

- 32 Gallon Trash Can
- Tarp
- 2 Bungee Cords
- Fog Machine

INSTRUCTIONS

STEP 1: Have an adult cut a 5-inch hole in the bottom of the trash can. Describe and classify the trash can by its observable properties.

STEP 2: Cut a large square from the tarp. Make sure the square is large enough to cover the top of the trash can. Describe and classify the tarp by its observable properties.

STEP 3: Secure the square piece of tarp, over the top of the trash can, with the bungee cords. Describe and classify the bungee cords by their observable properties.

STEP 4: Using the fog machine, fill the trash can with a cloud.

STEP 5: Using your hand, hit the center of the tarp, and observe. What happens? Why? Describe and classify the cloud donut by its observable properties.

EXPLANATION

The cloud ring launcher proves air takes up space and shows how a vortex, in the shape of a donut or torus, is formed. This happens since the air leaving the trash can, at the center of the hole, is traveling faster than the air leaving around the edge of the hole.

WATCH NOW



SCIENCE BACKGROUND

Matter is anything that takes up space and has mass. 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. Measurements of a variety of properties can be used to identify materials. Different properties are suited to different purposes.

I CAN STATEMENTS

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter | Patterns