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DIY ACTIVITY

MAKE YOUR OWN 'SOLAR BOWL' WATER CYCLE MODEL

GRADES 3-5

OBJECTIVES

- Observe water changing form from liquid to vapor to liquid again.
- Identify that the sun (heat) is the driving force for water to change form.
- Recognize that grass and dirt particles do not transform into vapor, and so are not present in the condensed water.

PROCEDURE

 **WATCH THE GENERATION GENIUS WATER CYCLE VIDEO.**

1. Pour the water from the glass into the large bowl until it just covers the bottom. Add the grass and dirt and stir.
2. Place the smaller bowl in the water in the middle of the larger bowl.
3. Cover the large bowl with plastic wrap and secure it with the rubber band.
4. Place the coins in the center of the plastic wrap, right over the small bowl, so the plastic wrap is pushed down a bit to make it slanted.
5. Put the large bowl in a sunny window

MATERIALS NEEDED

- A large bowl and a smaller bowl
- Glass of water
- Small amount of grass and dirt
- Sheet of plastic wrap, enough to cover large bowl
- Big rubber band
- A few coins
- A sunny window

Activity Duration: 5-10 minutes to assemble, 30 -60 minutes for bowl to sit in the sun, 20-30 minutes to discover the results of the sun exposure and discuss the events.

WHAT IS GOING ON HERE?

Evaporation occurs as the water in the large bowl is warmed by the sun. The water vapor rises and hits the cooler plastic cover, causing the vapor to condense on the underside of the plastic and form water droplets. The droplets roll down the slanted plastic wrap to the lowest point, where the coins are, and fall into the smaller bowl. The grass and dirt particles do not evaporate and are left behind in the large bowl.

FURTHER EXPLORATION

Questions to research: Where on Earth might this process be taking place naturally? In what instances would people want to do this process deliberately? What would happen if you did this process with lemonade? A soda such as a cola? Chicken soup?