

Steam Themed Events

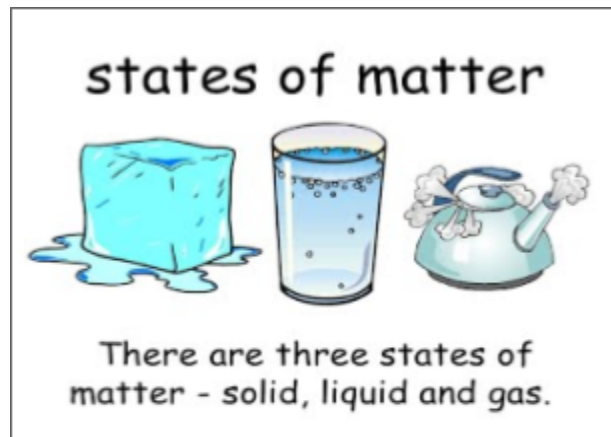
The Theme for Virtual Event: Water

Title for the STEAM event: Water Works

Name of Steam Activities	Materials for STEAM Activities
Activity #1 Properties of Water	We are going to discuss three properties of water or States of Matter Solid Liquid Gas Show Examples--ice cubes, water in a cup, steam (hot water in a cup) American Chemical Society www.acs.org/kids
Activity #2 The Water Cycle	The Water Cycle--show chart Make Water Cycle wristband--bead colors--white, blue, clear, yellow and brown (optional) American Chemical Society www.acs.org/kids The Water Cycle--posters https://www.kidzone.ws/water/index.html
Activity #3 Water's skin	Water sticks so strongly to itself, it tends to bead up on slick surfaces like a car's hood. 2 paper towels, penny, water, dropper, liquid dish soap, food coloring (optional) American Chemical Society www.acs.org/kids

Name of Steam Activities	Materials for STEAM Activities
Activity #4 Water Walkers	<p>Many different kinds of insects can walk on the surface of a pond without breaking the water's skin</p> <p>disposable aluminum pie or cake pan, water, small paper clips, pop-top rings, plastic tabs</p> <p>American Chemical Society www.acs.org/kids</p>
Activity #5 Floating Flowers	<p>Construction paper</p> <p>Scissors</p> <p>Markers</p> <p>tub</p> <p>water</p>
Activity #6 Ships Ahoy	<p>Build a boat:</p> <p>plastic eggs</p> <p>foil</p> <p>chenille stems</p> <p>foam sheets</p> <p>tape</p> <p>scissors</p> <p>tub</p> <p>water</p>

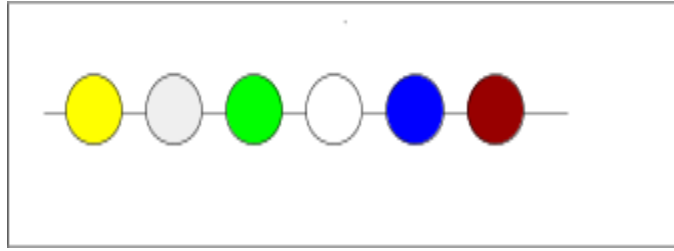
Activity # 1 Properties of Water



Instructions/Directions:

1. Make of drawing of the Three States of Matter (may follow the example)
2. Examples--ice cubes, a cup of water, and hot water (ask parents for help)
3. The solid matter will keep its shape in the container.
4. The liquid matter will have the shape of the container.
5. Gases will have the shape of the container.

Activity # 2 Water Cycle Wristband



Instructions/Directions:

1. Thread the beads in an order that you choose on the chenille stem or yarn.
2. Yellow is the solar energy
3. Clear is the evaporation
4. Green is transpiration (evaporation of water from plants)
5. White is the condensation (clouds)
6. Blue is the precipitation (as in rain, snow, sleet, or hail)
7. Brown is the percolation (movement of groundwater below Earth's surface)
8. Place the wristband around your wrist and make sure that it can easily be taken on and off.

To make paper beads:

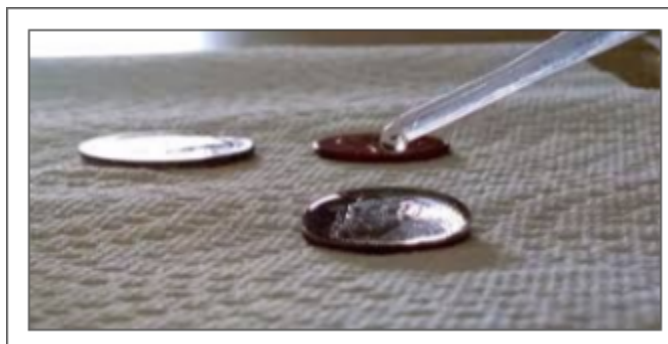
construction paper
glue
pencil
scissors

Cut paper into a long triangle

Take the wider end and roll around the pencil

Once you have rolled the paper, place a drop of glue to hold in place. the glue may ooze, that is ok.

Activity # 3 Water's Skin



Instructions/Directions:

1. You will need 2 paper towels, a penny, a dropper, dish soap, and water (you may add a drop of food coloring to the water).
2. Place a clean, dry penny on one of the paper towels.
3. From the cup of water, use the dropper to carefully place a drop of water onto the surface of the penny.
4. Count the drops of water watching from the side.
5. How many drops of water fit onto the penny before the water runs over the edge of the penny? Record your answer and draw a picture.
6. Dry the penny completely with the other paper towel. Place the penny on the other paper towel in a dry spot.
7. Add 5 drops of liquid dish soap to the cup with water and slowly stir with the dropper.
8. Now try with the soapy water. How many drops can you add before it runs over the edge? Record your results and draw a picture.

** The reason is that the water molecules stick together. It beads up on slick surfaces like a car. The water forms a skin. When the dish soap is added, it breaks down the water molecules and falls apart.

Activity # 4 Walk on Water



(Credit: Howard Perlman, USGS. Public domain.)

Instructions/Directions:

1. Fill a pan with water
2. Hold a paper clip at one end. and observe what happens when it is dropped in the water.
3. With a second paper, the clip starts lowering to lay flat on the surface of the water. Observes what happens.
4. Try another paper clips, pull tab or plastic tabs. This will take practice, don't give up.

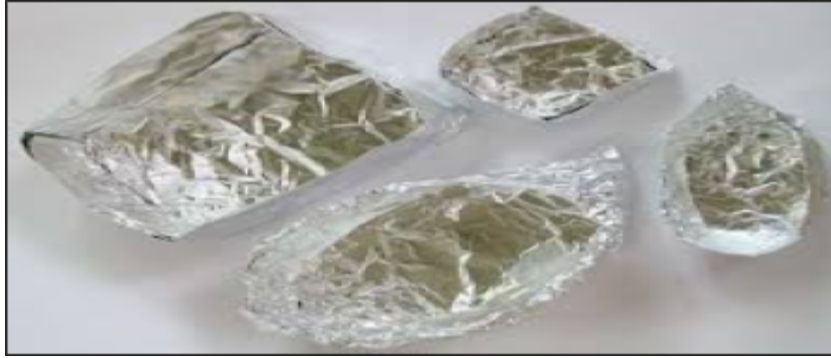
Activity # 5 Floating Flowers



<https://thestemlaboratory.com/magic-blooming-flower/>

1. Follow the instructions about folding the construction paper to make a flower shape.
 - a. *Fold the square in half one way then fold it in half the other way. Hold the folded corner and cut out a petal shape, or draw a petal shape to cut.*
2. You can also draw a flower shape on the construction paper.
3. Fold the petals down one by one into the center.
4. Place on water and watch it bloom.
5. You may make a smaller flower to be tucked into the center of a larger flower and observe. What happened?
6. You may use markers to color the flowers, did anything happen to the water?

Activity # 6 Name of STEAM Craft/Experiment



Instructions/Directions:

Build a boat:

1. **plastic eggs**
2. **foil**
3. **chenille stems**
4. **straw**
5. **foam sheets**
6. **tape**
7. **scissors**
8. **tub**
9. **water**

Mold the foil to create a boat shape.

place it in the tub of water. Add some weight-- pebbles, Legos, or something that will fit inside

What is happening to your boat? Is it still floating? Did it spring a leak?

Now make an egg boat

What do you have to do to make it float?

--cover holes with tape

--add a mast and sail (chenille stem, or straw, and foam sheet)

Is your boat balanced? Add some weight--what happened?