

Sink or Float Experiment

What You Need:

- 1 large plastic container
- Different objects, such as coins, cotton balls, cereal, raisons, cork, toy boat, etc.

Please note small objects can be a choking hazard for children.

Directions:

- 1. Fill the large plastic container with water.
- 2. Select an object to be placed in the water. Ask your child if they think it will sink or float.
- 3. Have your child put the object in the water and watch what happens to the object.
- 4. Ask your child if the object sank or floated? And if they predicted correctly.
- 5. Repeat with other objects.



This is a great activity to encourage conversation. Talk to your little one about why some objects float and some do not. You can also explain to your little one that when they try things out to see if their ideas are correct, this is called an experiment. You can also talk about each object's shape, colour, and texture before it is placed in the water.

- <u>Water</u> by Henry Pluckrose from <u>Vaughan Public Libraries</u>
- The Ocean In Your Bathtub by Seth Fishman from Vaughan Public Libraries
- The Water Cycle at Work by Rebecca Olien from Vaughan Public Libraries









Ingredients:

- 1 box (454 g) of cornstarch
- Approximately 1 cup of water
- Plastic container to hold the material, or a 9x13 cooking dish
- Spoons, small bowls, or toys to play with in the oobleck (optional)

Directions:

- 1. Pour the cornstarch into the container.
- 2. Slowly add the water until you get the desired consistency.
- 3. Enjoy!

Talking Points:

Talk to your little one about the texture (gooey, firm, cold, etc.). Get them to experiment to see how they can roll it to make it act like a solid or let it travel through their fingers when it acts like a liquid.

Follow along with our instructional video!
STEAM Activity: How to Make Oobleck

- Bartholomew and the Oobleck by Dr. Seuss from Vaughan Public Libraries
- Science Verse by Jon Scieszka from Vaughan Public Libraries
- Pete the Cat and the Supercool Science Fair by James Dean and Kimberly Dean from Hoopla





Volcanic Eruption

What You Need:

- 1 glass or plastic container
- 1/2 cup of water
- 2 tbsp of baking soda
- 1/2 cup of vinegar
- Towel for cleaning up
- Red food colouring (optional)

Directions:

- 1. Fill the glass (or plastic container) with water.
- 2. Have your child add the baking soda and red food colouring to the water and mix it.
- 3. Have your child pour the vinegar into the glass.
- 4. Watch as your little one will be amazed by the mini volcanic eruption. They will probably want to do it again, and again, and again!

Talking Point:

Explain to your child, that a chemical reaction just occurred. When an acid (in this case, vinegar) and a base (baking soda) mix they form a gas called carbon dioxide.

- Fairy Science Solid, Liquid, Gassy by Ashley Spires from Vaughan Public Libraries
- Valcanoes! by Anne Schreiber from Vaughan Public Libraries





Dancing Coin

What You Need:

- Coin, such as a quarter - Bowl

- Empty Glass Bottle - Warm Water

Please note small objects can be a choking hazard for children, and hot water can burn your child.

Directions:

- 1. Place the empty glass bottle in the freezer for at least 3 or more hours.
- 2. Remove the bottle from the freezer.
- 3. Fill a bowl half full with warm water.
- 4. Dip the coin into the warm water, and then place it over the bottle opening.
- 5. Place the bottle in the water and see what happens to the coin.



Talking Point:

Explain to your little scientist that the bottle is full of cold air, but when it is placed in the warm water, the air inside the bottle starts to warm up and move around and rise causing the coin to move. Try out different coins and see if it works. Talk to your little one about the currency, how much it is worth, what it is called, and any images on the coins. Does other material also work? Let your child experiment. After the experiment, you may also find your little one fascinated with playing with the water in the bowl. Give them some toys and try our "sink and float experiment".

- Mewton and Curie The Science Squirrels by Daniel Kirk from Vaughan Public Libraries
- Dream Big, Little Scientists by Michelle Schaub from Vaughan Public Libraries



Songs

Sink or Float Song

Tune: Twinkle, Twinkle, Little Star

Will it sink or will it float
Like a rock or like a boat?
Clever scientists we are wise
Think and then hypothesize.
Sink or float which will it be?
Experiment, and we will see!



Science Song

Tune: Mary Had a Little Lamb

Can we learn something new
About our world, about our world
Can we learn something new
Can we make a guess?

Then we can find out if it's true
Out if it's true, out if it is true
Then we can find out if it's true
Through an experiment.



I'm a Little Volcano

Tune: I'm a Little Teapot

I'm a little volcano, burning hot Here is my crater, better watch out When my pressure builds up, I erupt And the lava just spills right out



