



**PCSP
Library**

**Portugal Gove
St. Philip's**



SCIENCE LITERACY WEEK

September 18th - 22nd, 2023



SCIENCE EXPERIMENT ACTIVITY BOOK

Send photos trying out these experiments
and you could win a science literacy week
prize pack! Email your photos to Stacey at
stacey.hanlon@pcsp.ca by September 22nd

SCIENCE LITERACY WEEK

Activity for Ages 0 - 4

Tornado in a Bottle

What You'll Need:

- Empty glass bottle with a lid
- 3-4 tablespoons of glitter (the more the better)
- Funnel
- Water



Instructions:

- Using the funnel, put the glitter into the empty glass jar. The more flitter you use, the better you'll be able to see the tornado!
- Next, fill the jar about $\frac{3}{4}$ full of water
- Put the lid back on the jar, make sure it's really tight
- Turn the bottle upside down and quickly move the bottle in a circular motion for 10 – 15 seconds
- Finally, set the bottle down on the table and observe the tornado that has formed

It might take some practice to get the movement down pat!

Source: <https://coolscienceexperimentshq.com/tornado-in-a-bottle/>

SCIENCE LITERACY WEEK

Activity for Ages 0 - 4

Magic Milk

What You'll Need:

- Milk (preferably room temp)
- Food colouring (contrasting colours)
- Cotton swabs or Q-tips
- Dish soap
- Shallow bowl or container



Instructions:

- Pour milk into a bowl/container (or a plate with a lip)
- Add drops of food colouring to the bowl of milk
- Put some dish soap on the end of a cotton swab/Q-tip
- Dip the cotton ball/Q-tip into the bowl of milk and food colouring and watch what happens

Switch it up by using different colours! What happens when you add more dish soap?

SCIENCE LITERACY WEEK

Activity for Ages 5 - 10

Sugary Drink

What You'll Need:

- 5 white eggs (right out of the container)
- 5 cups
- Masking tape
- Water
- A dark coloured sugar free drink (such as purple G2 or Powerade zero)
- A dark coloured soda – (such as Pepsi or Coke)
- A dark coloured fruit juice – (such as grape juice)
- Orange juice

Instructions:

- With the masking tape, label each cup with the drink name
- Pour the drinks into their labelled cup
- Put an egg in each cup
- Lay your cups in a safe place
- Wait, check on them after a few hours, then again after 24hours

What happens to the eggshells represents what will happen to your teeth over time.

Source: <https://feelslikehomeblog.com/what-do-sugary-drinks-do-to-your-teeth-kids-science-experiment/>

SCIENCE LITERACY WEEK

Activity for Ages 5 - 10

Colourful Cubes

What You'll Need:

- Sugar cubes
- Plate
- Water
- Food colouring
- Aluminum foil
- Cling film
- Paper
- Paper towel



Instructions:

- Add a few drops of food colouring to a little water and pour onto the plate
- Place a stack of sugar cubes onto the plate and watch what happens
- How high can you stack the tower before it collapses?
- Build a new stack of cubes and place a small sheet of foil on top of the first sugar cube, stacking more cubes on top of the foil.
- What happens?
- Repeat again using different materials (cling film, paper, paper towel) to investigate which ones absorb water and which stop the water from reaching the cube above

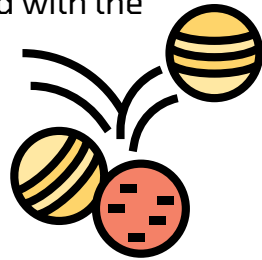
SCIENCE LITERACY WEEK

Activity for Ages 10 - 15

Homemade Bouncy Balls

What You'll Need:

- 1 tbsp. of Elmer's white glue
- ½ tsp. of Borax powder (can be found with the laundry detergent in most stores)
- Food colouring
- 3 tbsp. of cornstarch
- 4 tbsp. of warm water
- Plastic cups or bowls



Instructions:

- In one cup, put your warm water, cornstarch and Borax. In another cup or bowl, put your Elmer's glue in it
- Next, put several drops of food colouring into the white glue and stir well
- Stir your water/borax/cornstarch mixture well, to combine all the ingredients, making sure the cornstarch doesn't settle at the bottom
- Then, pour this mixture into the coloured glue mixture
- Once combined, give the mixture a good stir until you have one big, slimy blob
- Take the blob out of the liquid and start rolling it between your palms
- Have some paper towels handy, it'll be sticky at first, so wipe off your hands occasionally
- Keep rolling it between your palms until a ball is formed and the stickiness is gone
- Once it is, and you have a nice, smooth ball, bounce away!

SCIENCE LITERACY WEEK

Activity for Ages 10 - 15

Density Tower

What You'll Need:

- One clear container/vase
- 8 plastic cups (only small 4oz cups)
- Turkey baster
- Food colouring (contrasting colours for the water/rubbing alcohol)
- Metal bolt
- Popcorn kernel
- Board game die
- Cherry tomato
- Plastic beads
- Soda cap
- Ping pong ball
- Honey
- Corn Syrup
- 100% Maple Syrup
- Whole Milk
- Dish Soap
- Water
- Vegetable Oil
- Rubbing Alcohol



SCIENCE LITERACY WEEK

Activity for Ages 10 - 15

Density Tower

Instructions

Now begin pouring into the clear container/vase (in order).

- For the first 3 layers, simply pour them into the container/vase, one at a time, ensuring the liquids do NOT touch the containers sides, go very slow
- For layers 4 and 5, the whole milk and dish soap, use the turkey baster, and again, go slowly
- For the last layers, beginning with water (make sure you have used different colour food colouring for the water and the rubbing alcohol), use the turkey baster to pour the liquids down the side of the container and let them collect into a layer of their own.

Now it's time for sink or float! Carefully drop each of the 7 objects into the container and watch what happens to each of them

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