



Adventures in STEAM

Explore science, technology, engineering, arts, and math in a 30 minute program! Each session focuses on a specific aspect of STEAM.

2nd and 4th Tuesday of the month
4:00-4:30 pm

Registered





Adventures in STEAM

Lightyear Lava Lamps

Today, we're using chemistry to make art.

Activity

Create a temporary lava lamp using kitchen ingredients

Supplies

- Water
- Vegetable oil (we used canola oil)
- Vinegar (white vinegar)
- Baking soda
- Glass jar
- Food colouring

Steps

- Put a few tablespoons of baking soda into the jar
- Add water until the jar is 1/4 full
- Add a few drops of food colouring and stir (the more food colouring you add, the darker your lava lamp will be)
- Add oil until jar is 3/4 full
- Slowly add vinegar
- Bonus: turn off the lights and use a flashlight to shine through the jar





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Further learning

What do you think will happen if you sprinkle more baking soda into the filled jar? Baking soda and vinegar react because baking soda is a base and vinegar is an acid. Adding an acid to baking soda will cause a chemical reaction. We can see this reaction through the bubbles it makes. Try combining other safe acids with baking soda. Put baking soda on half a lemon to create a mini volcano.

Colours, shapes, and motion

Our temporary lava lamps create art through science. The chemical reaction between vinegar and baking soda moves bubbles of colour up through the oil layer.

Refik Anadol's *Unsupervised* uses AI to interpret info about the items at the Museum of Modern Art (MoMA), and info about the museum environment (like light, outside weather and sound) to reimagine the MoMa as a dream of colour, shapes, and movement. Much like a lava lamp, the science leads to motions that draw our eye!

