

# Float Trip

## Best for Ages

5+

## Workspace

Flat indoor surface

## Is electricity required?

No

## Description

Let's explore density by testing household treats with the sink or float method! Get ready for a little splash and lots of fun!

## Materials

- Large clear container
- Water
- Treats to test: cereal, candy, chocolates, gummies, a variety of small treats that vary in size and weight
- Raft materials: foil, styrofoam, paper clips, popsicle sticks, pipe cleaners, toothpicks, etc.

## Concepts Explored

- Density
- Predictions

## What to Do

1. Take your clear container, fill it up halfway with water, and place on a flat sturdy surface.
2. Place all your treats on the table. Let's make some predictions! Using your Amazeum You journal, write or draw whether the treats will sink to the bottom or float to the top.
3. Take one treat and drop it into the container of water. Observe what happens. Record the results in your journal.
4. One by one, continue to drop the rest of your treats into the container. Observe and record your results.
5. Remove all the treats from the water.
6. Sort them into two piles of those that sank and those that floated. What do you notice about the types of treats in each pile?
7. Now using materials found around the house, like foil, paperclips, etc., build a raft that will keep your candies from sinking.
8. Whoa! Are all your candies floating now? Do a little dance to celebrate!



# Float Trip

## Troubleshooting Tips

- If all your treats sank, try and find some treats that have trapped air bubbles inside like puffy/flaky cereal or treats that use wafers.
- If you cannot make your raft float, try and find a material that will float on its own first then add to that.



Why do you think some items sank while some floated?

What happens if you leave the wrappers on candy?

Did the size of the treat matter?

## What is Happening?

- Your treats either sank or floated due to their **density**. Density is how we measure how compact an object's molecules are to each other. If there are air bubbles inside, then it is less dense (less compact) than the water which makes it more likely to float.
- You used your observations to help you make a **prediction** about how other treats would react in the water. What did you discover about your predictions? Were any correct? What did you learn? Scientists use their predictions to challenge the ways they think and observe the reasons for a certain outcome.
- The raft you built is working like a boat. It is using its surface area to help spread out the weight.

## Taking it Forward

- As you go through your day, be observant of your surroundings. Look at different objects around your house (big and small). Make some predictions - if you put it into a pool or bathtub would it sink or float? Why? Think about yourself when you are swimming, do you float or sink?
- If you like this activity, check out our other [Amazeum YOU](#) experiments and document your results in your journal.
  - Oobleck
  - Dancing Drawings