

Praxis “Making Science Fun”

Buoyancy in a Bucket

Ability to float is called buoyancy. Does shape have anything to do with buoyancy?

What you'll need:

- Small bucket or large bowl
- Plasticine
- water

Procedure: (Remember to be sure to have your parent’s permission and they have the time to watch and help as you do your experiment.)

1. Fill the bucket with water.
2. Divide the plasticine into two balls that are the same size.
3. Shape one ball into a cup-shaped boat. It will depend on the size of your plasticine but you can make your boat about the same size as your hand when it is cupped. Make sure the sides are all the same height.
4. Place the plasticine boat and ball on the surface of the water.



What's happening?

Even though you started with the same amount of plasticine when placed on water the results were quite different. The ball of plasticine takes up less space than the “boat”. In both cases the water pushes on the plasticine but there is more for the water to push against in the boat because it is spread out more. The amount of water pushed aside by an object equals the force of water pushing upward on the object. The larger boat pushes more water out of the way than the ball and creates enough force to cause it to float.

Project Extension:

In ancient times, Archimedes discovered the idea of buoyant force while taking a bath. According to legend he became so excited that he ran naked down the street shouting “Eureka! Eureka!” which is Greek for something like “I found it”. Today his observation is known as the Archimedes Principle. Go on-line with your parents and learn more about buoyant force and the Archimedes Principle

This experimental activity was one of many based on our “Boats and Buoyancy” grade 2 Learning Kit. Our teaching kits are loaned out for FREE to help give classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering to speak to a class about any one of our Science learning kits described on our website. Or consider volunteering to help out at one of our community events such as the Family Science Olympics on October 15, 10:00 am – 3:00 pm in the Taylor Science Wing of MHHS (5th Street entrance). We would be most appreciative to hear from you.

Lorne Cooper, Regional Executive Director

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