

# STELLAR Aluminum Boat Buoyancy CHALLENGE

Scroll down for directions and an extension activity!

June 9, 2020



Have you ever wondered how boats float? It has to do with **buoyancy**. Buoyancy is the ability of something to float in a liquid, such as water. Click on the link or scan the QR code below to watch a short video to learn more.

<http://www.viewpure.com/06TFRgPlmxU?start=0&end=0>



# Aluminum Foil Boat Buoyancy Challenge

This is a great activity to do outdoors!

## What You Need:

- ★ Aluminum Foil (6 inch X 6 inch square)
- ★ Pennies
- ★ Tub filled halfway with water
- ★ Adult supervision

# Instructions

1. Measure and cut a 6 inch square of aluminum foil.
2. Think about the shape of a boat.
3. Fold or mold your aluminum foil square to design a boat that can float with pennies as its cargo.
4. Predict and jot down the number of pennies you think your boat will be able to hold without sinking.
5. Place your boat into the basin of water.
6. Gently place pennies in the boat one at a time. Count as you add each penny.
7. How many pennies did your boat hold before it capsized?
8. Did you come close to your prediction?
9. Try again with a different design. Did it hold more pennies?
10. Challenge a family member to a boat floating contest!

# Extension Activity

Click on the link or scan the QR code to watch a video about **density** and how it relates to buoyancy.

[http://www.viewpure.com/eQuW8G2QV\\_Q?start=0&end=0](http://www.viewpure.com/eQuW8G2QV_Q?start=0&end=0)



Draw the chart below on a sheet of paper. Collect items from around your home or yard, just like in the video. Examine them closely and think about their density when you pick them up. List the objects in the chart. Based on what you learned from the video, predict if you think they will sink or float. Then, with an adult's supervision, place the items one at a time in a tub of water. How did your predictions turn out? Were items denser than you thought?

Object	Sink	Float

# Send Us Pictures!

Your STELLAR teachers want to see your pictures!

Please email pictures of your floating boats to your school STELLAR teacher.

<b>School</b>	<b>STELLAR Teacher</b>	<b>Email Address</b>
Covert	Mr. Figaro	cfigaro@rvcschools.org
Hewitt	Ms. Flanagan	cflanagan@rvcschools.org
Hewitt/Wilson	Ms. Jorde	kjorde@rvcschools.org
Riverside	Mrs. DeFranza	adefranza@rvcschools.org
Watson	Mrs. Montemarano	pmontemarano@rvcschools.org
Wilson	Ms. Lohr	llohrr@rvcschools.org
Wilson	Mrs. Messina	mmessina@rvcschools.org