

Buoyancy

PS HELO Assignment #2 – Buoyancy part one. Complete the following and submit via Edmodo. Include subheadings. This document is posted on Edmodo.

Essential Question: *What conditions cause an object to sink or float?*

The Problem: In 2-3 sentences, summarize the Wallawallabingbang problem you are solving.

Resources: Review at least two of the following resources to learn more about buoyancy and record which ones you studied as well as your notes of main ideas and supporting details from each resource.

- What is Buoyancy? PDF
http://www.phillyseaperch.org/uploads/9/1/0/6/9106381/buoyancy_for_hs.pdf
- Buoyancy Simulation - <https://phet.colorado.edu/en/simulation/buoyancy>
- How life jackets work <http://adventure.howstuffworks.com/outdoor-activities/water-sports/life-jacket1.htm>
- Buoyancy brainteasers – 3 puzzles
<http://www.pbs.org/wgbh/nova/lasalle/buoyancy.html>
- Video: Mythbusters: Let's talk buoyancy <http://www.discovery.com/tv-shows/mythbusters/videos/lets-talk-buoyancy/>
- Video: Why do things float? An easy lesson
<https://www.youtube.com/watch?v=y0SnFCs9z1g>

Planning and implementing a strategy: Prepare a boat to meet the Leaving Wallawallabingbang challenge. Describe in a few sentences your planning and procedure for building it. Take one or more photos of your boat and include with your assignment submission.

Reminders:

- Your boat must fit inside our classroom “ocean”, a.k.a. the sink.
- You may only use the following materials:
 - *Provided by your ELO teacher:* 6 Popsicle sticks
 - *Found at home:* scotch tape, plastic and Styrofoam from your recycling bin, aluminum foil, drinking straws, string, cloth.
- You may work with 1 or 2 other ELO students. It's okay to consult with a family member as long as you are the one doing the work!
- You are on your honor to follow the time limit. After gathering your materials, you have a maximum of one hour to assemble your boat.

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Monitoring progress and revising strategy:

Describe the changes you made to your boat during the construction process to improve it.

Explain the three key features of your boat design that you believe will help it remain buoyant under heavy loads.

On a scale of 1-10, with 10 being the best, how well do you predict your boat will do with staying afloat with the required load?

Bring your boat to TASC on March 9th for the Leaving Wallawallabingbang buoyancy challenge!