

A Floating Boat

Objectives:

Students will:

- create a boat that floats on water
- incorporate the scientific process and assess their work as they go

Materials:

- Clear tub filled with water
- Materials for students to create their boats; foil, Popsicle sticks, blue, tape, etc.
- What Floats? What Sinks? By J. Boothroyd
- Access to computers to use online resources to research objects that float/sink

Lesson Activities:

1. Tell students that they are going to use many different objects to create a boat to float on top of the tub of water.
2. To give students a some background on items that sink or float read What Floats? What Sinks? By J. Boothroyd. Students may also be given time to explore online resources found on KidsInfobits found at (<https://go.galegroup.com/ps/start.do?p=ITKE&u=044800>)
3. Show students the items they can use
4. Begin by putting students in groups and allow enough time for them to brainstorm what items they may need and create a design for their boat. If additional materials are requested by students, have them bring them in the following day to begin building their boats.
5. Following their brainstorming and design time, (typically I will do this next step on another day) give students ample time to begin building their boat. Have the tub of water available for students to test their boat throughout the work time. This will give them a chance to assess their work throughout the process and make problem solving decisions throughout the building time.
6. During the time students are working, monitor their work and ask questions to guide their thinking, asking what types of materials they are using, what design model they are using and reminding them to test as they build.
7. When students have had time to test and improve their models, have a Classroom Boat Design Competition. In this competition students will see how much weight their boat can hold before sinking. During this time students will

collect the data for how much weight using place value cubes as the consistent way to see how much weight it can hold.