

Penny Boats

Activity Name:	Unknown macro: {text-data}
	Penny Boats
	Unknown macro: {Penny Boats}
How long did it take?	Unknown macro: {1 Hour}
Materials:	Unknown macro: {text-data}
	* Aluminum Foil
	<ul style="list-style-type: none">• Pennies• Tubs with water

Vocabulary to know about for this activity:

Unknown macro: {text-data}

Unknown macro: {Buoyancy, Force, Density}

Background/Things to know about for this activity:

Unknown macro: {text-data}

Unknown macro: {A background about buoyancy, how to draw a force diagram for a boat, displacement, etc.}

Preparation (what should one do to prepare)::

Unknown macro: {text-data}

Unknown macro: {Make sure a water source is available}

Procedure (how to go about the activity):

Unknown macro: {text-data}

Unknown macro: {Give students 10 minutes to talk about the activity. Then have them draw their boat ideas. Distribute 4 copies of the design form to each student. After the first design is complete, allow students to test whether their boat floats. Redesign if needed. Final test should see how many pennies the boats can hold.}

How can the EDP or engineering design practices be incorporated into this activity?

Unknown macro: {text-data}

Unknown macro: {Testing the initial design and then allowing for redesign incorporated this part of the design process. Testing the prototype and discussing how to improve designs is also part of the engineering design process.}

Comment: We completed this activity with 5th grade students. It went very well an the teacher was able to get involved with talking about forces and the best designs for the boats. We had multiple tubs of water for testing in order to speed up the process, but it may have been more engaging to have one tub that all the students watched. This way the students could see what kind of designs were successful or not.

Photos:

Unknown macro: {hidden-data}

Upload images via the "attachments" feature and they will automatically appear here.

There are no images attached to this page.

Worksheet:

File	Modified
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No files shared here yet.