

FLOAT YOUR BOAT

What makes a boat float? Find the answer to this question and more, as you enter the amazing world of boats!

PROGRAM PREMIERE

Youtube - Cal Poly Pomona ASCE

Friday, October 30, 2020 @ 10:00AM

CREATE YOUR OWN BOAT

Materials Required:

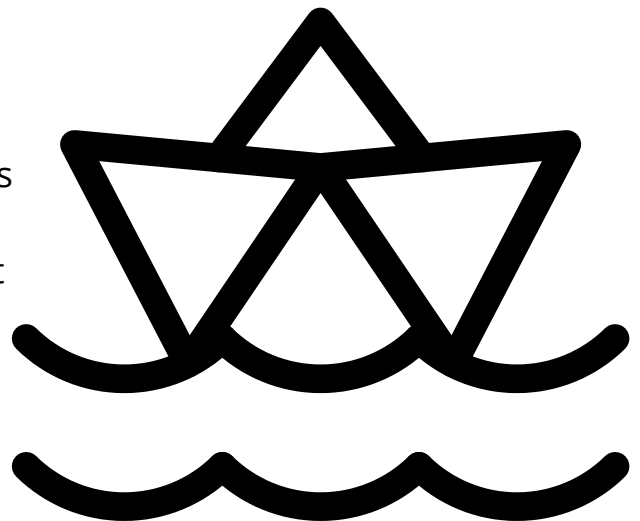
- crayons, aluminum foil, paper, coins or washers, and a large plastic container.

Instructions:

1. Refer to provided sheet for the instructions needed to create a paper and foil boat! Feel free to use crayons/colored pencils to customize the paper boat!
2. Take a container and fill it with about 1-2 inches of water. A 9" x 12" baking pan works great!
3. Place your boat on the water and see if it floats. If it does, that means that the boat weighs less than the water displaced, allowing it to float!
4. Try this experiment again with a foil boat. Did it float this time?
5. Add coins or marbles to your boat until it begins to sink! How much weight can your boat withhold before it sinks?
6. Share your creations with us on Facebook or Instagram using the hashtag #cppasceSTEM

Why does it work?

- When an object is placed into water, two forces act on it. There's a downward force (gravity) which is determined by the object's weight. And there is also an upward force (buoyancy) that's determined by the weight of the water displaced by the object. An object will float if the gravitational (downward) force is less than the buoyancy (upward) force. So, in other words, an object will float if it weighs less than the amount of water it displaces.

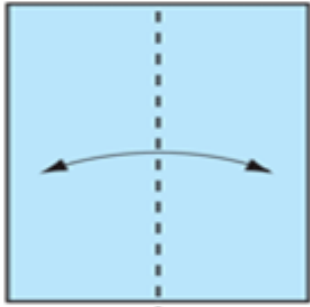


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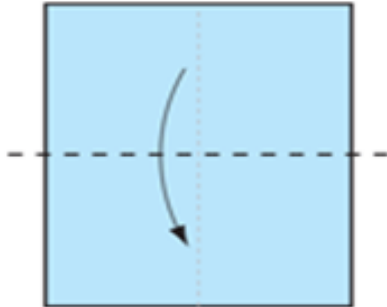
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ORIGAMI BOAT INSTRUCTIONS / INSTRUCCIONES DE BARCO DE ORIGAMI

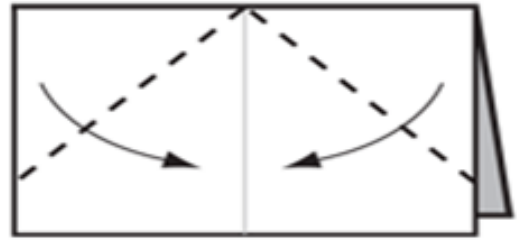
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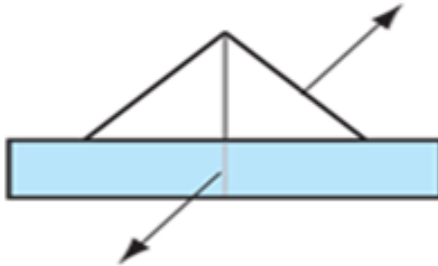
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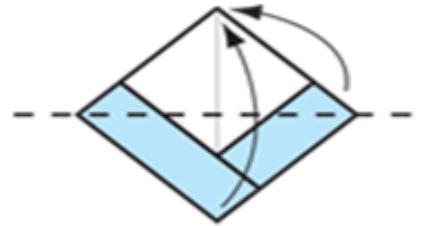
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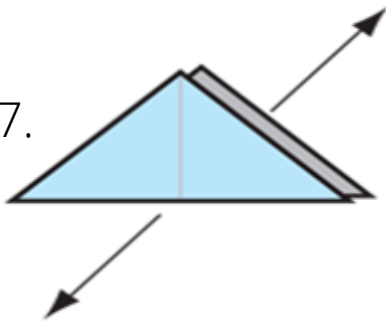
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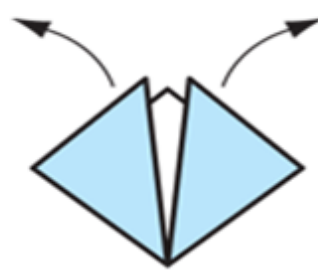
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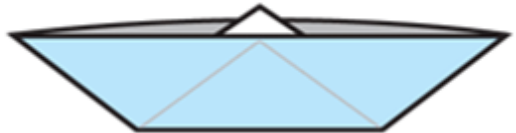
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