

OFF TO THE BOAT RACES

From material choices to aerodynamics to control systems, boats are highly complex machines. Discover the different types of boats as you design and build a one-of-a-kind watercraft.

MATERIALS

- Rectangular pool, filled with water
- Scissors
- Duct tape
- Hot glue

SUGGESTED MATERIALS FOR BOAT BUILDING

- Plastic bottles
- Plastic cups
- DC motor kit (2-AA batteries, AA battery holder with leads, mini electric motor, propeller, wire pieces)
- Balloons
- Straws
- Balsa wood pieces
- Styrofoam
- Plastic spoons
- Baking soda
- Vinegar
- Rubber bands

METHOD

1. Fill the pool with water to create a racecourse.
2. Design and construct a boat to cross a pool of water as quickly as possible using the materials provided. Consider different power sources to propel the machine.
3. Race your boat!

TAKE IT BACK TO CLASS

- Assign pricing to different materials. Set a budget or challenge yourself to construct a boat for the cheapest price possible.
- Which power source is most reliable? Can you make changes to your boat design to provide consistent power?

SOURCE:

[“4 Amazing ideas for Fun or Simple Ways to Make Boats”](#)
[from Yuri Ostr on YouTube](#)

NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.