

Build a Boat

Best for Ages

4+

Workspace

Flat indoor or outdoor surface

Is electricity required?

No

Description

Build a Boat is a hands on activity that explores making boats with materials that can be found at home.

Materials

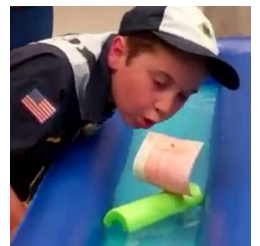
- **material options for building boats:** Popsicle sticks, wooden skewers, straws, pipe cleaners, paper clips, paper, rubber bands, corks, bottle caps, empty water bottles, milk cartons, egg cartons, plastic cups, empty toilet paper rolls, cardboard, foam material such as pool noodles.
- Container for water: bathtub, sink, bucket, storage container.
- **Helpful tools:** Tape, scissors. Optional: Hot glue gun, duct tape.

Concepts Explored

- Density
- Buoyancy

What to Do

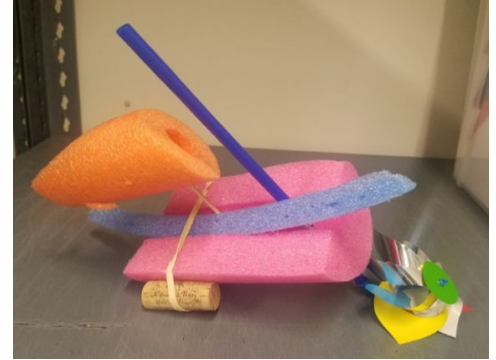
1. With your child's assistance, gather desired building materials and lay them out on a flat surface where the child can access them.
2. Prepare a place to test the boats such as a bathtub, sink, container filled with water, or inflatable pool.
3. Before building, test each material you gathered in the water to see if it floats or not.
4. Once you get an idea of what floats well, choose the materials you want to use for your boats. Use the scissors to cut the materials. Tape and hot glue might be helpful to attach parts of your boat. Be creative and manipulate the items in any way you would like.
5. Experiment with a variety of materials to make a boat that will float on water.
6. Once the boat is finished, test it in the water. Make modifications to your boat to make it float in different ways.



Build a Boat

Troubleshooting Tips

- If your boat sinks, try reducing the weight of your boat and change some of the materials.
- Encouragement and collaboration are great tools for overcoming challenges. If your boat doesn't float, work together to make changes and don't give up!



What else can you do to help your boat float?

Which materials worked better than others?

What surprised you about this activity?

What is Happening?

- The ability of an object to float is described as its **buoyancy**. The buoyancy of an object is its tendency to float on or rise in a liquid. An object that floats in water is said to be positively buoyant. An object that sinks is negatively buoyant.
- **Density** is how compact an object is. Objects that float are less dense than water.

Taking it Forward

- **Connecting this activity to the real world:**
 - Research or visit in person different types of boats such as fishing boats, ferries, cruise ships, canoes, or kayaks. What are these types of boats used for? Make observations about the boats. Find similarities and differences about them.
- **If you liked this activity you will also like...**
 - [Build a Bridge](#)
 - [Paper Airplanes](#)