

Buoyancy with Lego Boats

Materials needed:

- Random objects to test if they sink or float
- A container filled with water
- Assorted Legos to build their boats
- Pennies to test the density

Experiment:

Start by explaining that you will be playing a game called sink or float.

Give children 10 seconds to choose an item from the room and bring it to you, then set a timer or count to 10 while the children choose their items.

As a group, sort the items into a “sink” pile and a “float” pile, then test the items in a container of water to see if the predictions were correct.

You might also consider asking questions like:

- What are the characteristics or features of objects that float?
- What are the characteristics or features of objects that sink?
- What would happen if you place an object that sinks on top of an object that floats?

Discuss what makes a boat float and come up with an initial design. Depending on the age, they can simply draw their plans or for older kids, have them write why they chose a specific design.

Next, have them construct their boats from legos.

Test whether their boats sink or float.

Have kids [fill out a chart](#) to track their attempts at buoyancy with Lego boats, then have them rework their design to try again. Once the kids have a boat that floats, you can attempt to add pennies to see how much weight the boat will hold before it sinks (use our [Aluminum Foil Boat lesson](#) for reference).