**TRY IT:** Place the containers of sand and air in the tank. Which floats? Which sinks?

The container of sand sinks because it is heavier (has more mass) than the same amount of water.

A container of air floats because it is lighter (has less mass) than the same amount of water.

**TRY IT:** Divide the rest of the objects into 2 piles:
1 objects that you think will float
2 objects that you think will sink.

Then put the objects in the tank to find out!
Can you make objects which usually sink float? What about objects which usually float sink?

**TRY IT:**
Attach objects to one another

**TRY IT:**
Change the shape of the objects
Same volume

with LESS mass

or with MORE mass

SMALLER DENSITY (like the container with air)

GREATER DENSITY (like the container with sand)
If an object is LESS DENSE than water, then it has LESS MASS than the SAME amount of water:

(like the pieces of wood)

If an object is MORE DENSE than water, then it has MORE MASS than the SAME amount of water:

(like the metal weights)
**Buoyancy** is the upward force that an object feels when it is in water:

**Floater:**
- Upward force is greater than weight of object

**Sinker:**
- Upward force is less than weight of object