

Exploring Buoyancy

WHAT YOU'LL NEED:



LARGE PLASTIC TUB
(could be done in a bathtub)



TWO SMALL
PLASTIC WATER
BOTTLES
(or similar sealable
containers)

&



OIL

In this lab, kids will explore the concept of buoyancy and how some marine animals, like sharks, are able to stay afloat. Buoyancy means something's ability to stay floating in water instead of sinking. Most species of fish can stay buoyant because they have an organ called a swim bladder, which is filled with gas. Sharks, however, do not have a swim bladder. Instead, their livers are filled with oil. Oil is less dense than water, meaning oil will float on water. Having an organ filled with oil thus helps give sharks their buoyancy.

DIRECTIONS:

1. Fill the tub with water. This will be your ocean.
2. Fill one of the sealable containers with oil. Fill the other container with water. They don't have to be filled to the top but should be more than halfway full and have the same amount of liquid in each.
3. Optional: using markers, decorate the containers so they look like sharks.
4. Make a prediction – which “shark” will sink? Which shark will float? Put the two containers in the tub of water. You will notice that the one with oil floats and the one with water sinks.



EXTENSION ACTIVITIES:

- Try this experiment with different types of oil. Does using different types change the outcome?
- Try this experiment with different types of liquid. What types of liquid make the shark float and which types make the shark sink?

We want to see your at home lab experiments!

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Thanks for exploring with us!