

An experiment about buoyancy

You will need: a set of three objects, a newtonmeter, a beaker of water, some rubber bands.

A force data logger can also be used in place of a mechanical newtonmeter.

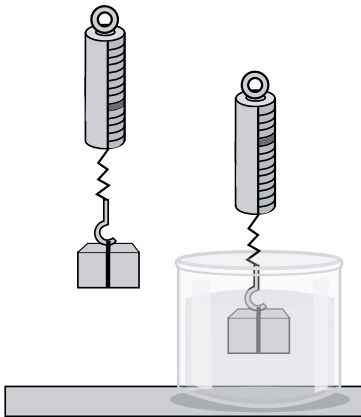
First, hook each of the labelled blocks onto the newton meter and record the weight of the block in the table.

Next, lower the block into the beaker of water until it either floats or becomes submerged.

Record the newtonmeter reading once floating or submerged.

Think about and then note down the size of the upthrust acting on the object in each case.

Sketch of apparatus



Results table

	Weight in air	Weight in water	Upthrust acting
Block A			
Block A			
Block A			

Extension work

Repeat these measurements this time place your beaker of water on the top of a top-pan force scale.

Which block weighed the most?

Which block experienced the greatest upthrust?

What was the size of the upthrust on block B when in the water?

What does this tell you about upthrust forces?