

Floating and sinking

Materials will sink if their overall density is more than the density of the solution they are floating in. For example, polystyrene has pockets of air within it making it less dense than water and consequently it floats.

Some materials can be altered to have a smaller overall density to make them into floaters, e.g. plasticine is normally a sinker, but by moulding it into a boat or cup shape it can be made to float.

(The upthrust of the water is also a factor in sinking and floating activities but it could be confusing to include this here).

The overall density of the plasticine takes into account the air within the boat shape.

COMMUNICATING TO OTHERS

The children could set up a demonstration showing the rest of the class what they found out.

EXTENSIONS

Investigate what happens to ice in fresh water and salty water.

Investigate which plasticine 'boat' shape is best for carrying things.

MATERIALS

Water tray.

A variety of objects made from different materials (the children could gather their own materials).

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EXPERIMENT

1 Can you make a sinker into a floater?

2 Can you make a floater into a sinker?

3 Do all materials sink?

4 Is salty water or fresh water better for floating things?

