

Water Resistance and Upthrust: Teacher notes

LO: To understand the relationship between gravity and the upthrust of water.

- To know that water resistance is a type of friction, which is a force.
- To understand that water resistance can slow objects down in water.
- To know what is meant by the word 'upthrust'.

Mini-experiment:

The purpose of this experiment is to teach the children that more streamlined shapes are less affected by water resistance. Try predicting, conducting and concluding this experiment as a class, leaving plenty of space for the children to discuss their ideas and reasoning.

You will need:

- A water beaker
- Plasticine
- Digital weighing scales

Mini-experiment:

The purpose of this challenge is for the children to experience first-hand the relationship between gravity and upthrust.

As they increase the weight of their boat with marbles they will need to increase the surface area of their boat, balancing the forces of gravity and upthrust.

You will need (for each group):

- A water bath
- Plasticine (equal weight for each group)
- Digital weighing scales
- Marbles (of equal weights)