



We're the Kids in America What stops me from moving?

1. Why do objects fall to the ground?

Unsupported objects fall towards Earth because of the force of gravity acting between the Earth and the falling object.



falling object.



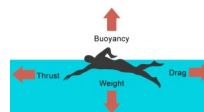
3. Why do some objects float?

Objects float because of water resistance and upthrust.

Water resistance is a type of friction that occurs between water and another object.

The greater the upthrust the more the object will float.

The greater the water resistance the slower the object through the water.

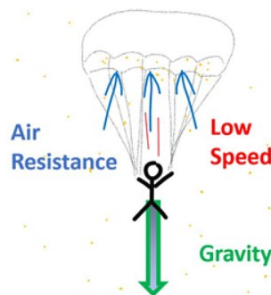


2 Why do objects fall at different rates?

Objects fall at different rates because of air resistance.

Air resistance is a type of friction that occurs between air and another object.

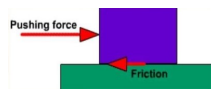
The greater the air resistance the slower the object through the air.



4. Why should I wear trainers for P.E.?

Friction is a force between 2 surfaces that are sliding, or trying to slide, across each other.

Friction slows a moving object down.



- The rougher the surface, the stronger the friction.
- The smoother the surface, the weaker the friction.

Applying Past Knowledge

This links with your Year 3 learning about magnets when you compared how different objects move on different surfaces.

Key Vocabulary

Force - a push or pull upon an object.

Gravity - the name for the force that pulls objects towards the centre of the Earth.

Friction—the force that stops moving objects slide against each other.

Air Resistance - A type of friction that slows objects down in the air.

Water Resistance - A type of friction slows objects down in the water.

Science Capital

Isaac Newton became famous for his work on gravity and his three laws of motion. different surfaces.

