



Key Vocabulary

gravity	The force that pulls objects to the ground
friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other
resistance	A type of friction caused by air and water pushing against any moving objects. We call this air resistance or water resistance
streamlined	When an object is shaped to minimise the effects of air or water resistance
mechanism	Parts which work together in a machine. Examples of mechanisms are levers, pulleys and gears

Key Facts

- Gravity is an invisible force - this means you can't see it, but it doesn't mean it isn't there. It is the force that keeps us on the ground.
- Air and water resistance are the opposing force to gravity. They also known as drag and help to slow objects down.
- Friction is two surfaces making contact and rubbing against each other, you can demonstrate this by rubbing your hands together.
- Pulleys, levers and gears can help make objects easier to move by allowing a smaller force to have a greater effect.

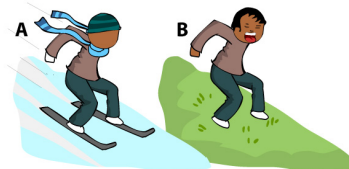
Key Questions

- What is a force?
- What is gravity?
- When can air resistance be helpful or a hindrance?
- How do things move through water?
- What happens when objects move across each other?
- How do forces affect mechanisms?

Links to other Learning

- Year 3 - Forces
Compare how things move on different surfaces
- Year 5 - Earth and space
Describe the movement of the Earth, and other planets, relative to the sun
- Key Stage 3 - Motion and forces
Know there are some contact and non-contact forces

Some surfaces have more friction than others. This depends on how rough or smooth the surface is



Gravity and air resistance are opposing forces. This means they act in opposite directions

Famous Scientist

Isaac Newton
1643-1727

Isaac Newton is best known for his work surrounding gravity and the laws of motion which are the basics of physics.

