

Clitheroe Brookside Primary School

Topic: Forces

Starlings

Explore falling objects and raise questions about the effects of air resistance. They should explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall.

They should experience forces that make things begin to move, get faster or slow down.

Explore the effects of friction on movement and find out how it slows or stops moving objects, for example, by observing the effects of a brake on a bicycle wheel.

Explore the effects of levers, pulleys and simple machines on movement.

Find out how scientists such as Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.

What should I already know? (YEAR 3)

- compare how some things move on different surfaces
- notice that some forces need contact between two objects but magnetic forces can act at a distance

What will I know by the end of this unit?

- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

SCIENTIFIC SKILLS

Designing and making
 Carrying out fair tests
 Exploring the different forces by investigating
 Explore the effects of the forces

SCIENTIFIC ENQUIRY



Research- Galileo Galilei and Isaac Newton



Compare and fair testing



Pattern seeking

Vocabulary

GRAVITY	The earth's gravity is the force that pulls everything towards itself.
FORCE	An influence that can be measured and tends to cause things to move.
AIR RESISTANCE	It is the opposing force that the object experiences as it passes through the air.
FRICTION	Friction is a force between two surfaces that are sliding, or trying to slide, across each other
WATER RESISTANCE	Water resistance is a type of force that uses friction to slow things down that are moving through water
PULLEYS	A wheel that is used for lifting things.
LEVERS	A bar that is pushed or pulled to lift something.
GEARS	Gears are used for transmitting power from one part of a machine to another

