Year 5 Spring 1 – Forces

Key Vocabulary	Definition
Friction	Friction is the force between two surfaces that are sliding or trying to slide across each other.
Gravity	Gravity is a force that tries to pull two objects towards each other.
Air resistance	A type of friction between air and another material.
Water resistance	A type of friction between water and another material.
Levers	A lever is a rigid body capable of rotating on a point on itself.
Pulleys	A simple machine and comprises a wheel on a fixed axle, with a groove along the edges to guide a rope or cable.
Gears	Gears are wheels with teeth that slot together. When one gear turns another will turn as well.
Parachute	A parachute is a device used to slow down an object falling towards the ground. Linking with air resistance.

Scientific Diagrams

Levers

Gears

Air resistance and gravity

Sticky Knowledge

Frictional force is any force that is caused due to friction.

Gravity is the pulling force between the Earth and a falling object. Gravity pulls the object to the ground.

Any kind of force is really just a push or a pull.

Air resistance is an object moving through the air like a plane.

Water resistance would occur when you go swimming.

Scientists Link

Isaac Newton

Lesson 1

Can I recognise and measure Gravity?

Lesson 2

Can I understand and investigate air resistance?

Lesson 3

Can I explain water resistance?

Lesson 4

Can I explain friction?

Lesson 5

Can I explain gears, pulleys and levers?

Lesson 6

Can I write a report on a range of forces?

Link to a text

Extract from a Biography of Isaac Newton.

Key Scientific skills

- planning different types of scientific enquiries to answer questions, including Recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests