

Remember
in Year 3,
we learned:

We learnt
how different
materials
move along
surfaces

Year 5

Forces

Later, in
KS3, you
will learn:

Forces as
pushes and
pulls, caused
by interaction
between 2
objects

Knowledge

By the end of this unit of study, pupils will be able to:

One	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.	
Two	Identify the effects of air resistance, water resistance and friction that act between moving surfaces	
Three	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	



Key Learning

A force causes an object to start moving, stop moving, speed up, slow down or change direction. Gravity is a force that acts at a distance. Everything is pulled to the Earth by gravity. This causes unsupported objects to fall.

Air resistance, water resistance and friction are contact forces that act between moving surfaces. The object may be moving through the air or water, or the air and water may be moving over a stationary object.

A mechanism is a device that allows a small force to be increased to a larger force. The pay back is that it requires a greater movement. The small force moves a long distance and the resulting large force moves a small distance, e.g. a crowbar or bottle top remover. Pulleys, levers and gears are all mechanisms, also known as simple machines.

Key Vocabulary

Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears