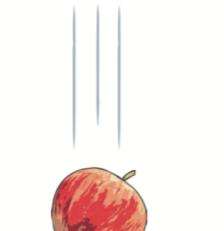


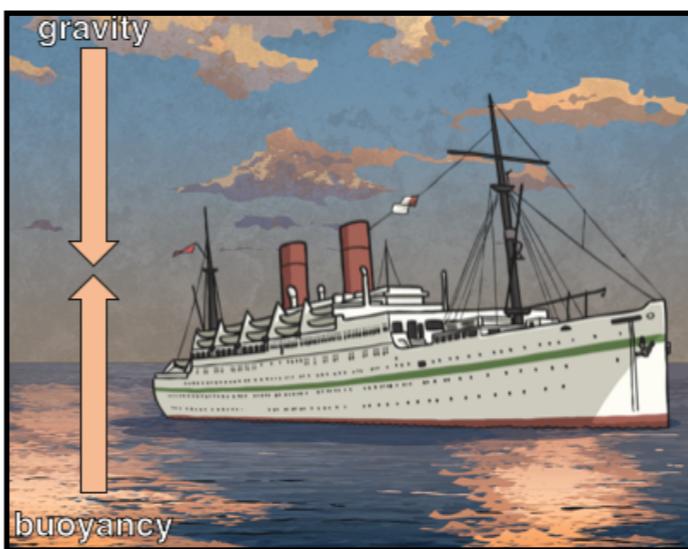
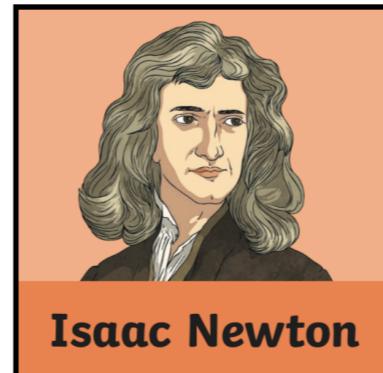
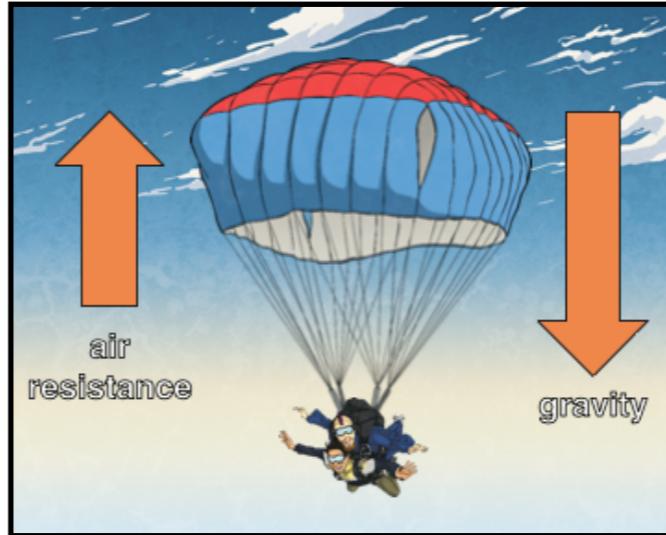
Forces

To be able to identify the effects of air resistance, water resistance and friction, that act between moving surfaces.

To be able to understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.

To be able to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object

Key Questions	
What do we already know about forces?	I know that a force is a push or pull that can speed up, slow down, stop or start a movement. I know that magnets can cause this movement at a distance. 
What is friction?	When an object moves on a surface, the texture of the surface and the object will affect how it moves. This is friction . It is easier to push or pull something along a smooth surface than a bumpy surface 
What is air resistance?	When an object moves through the air, air resistance can act between the moving surfaces, acting to slow the movement down. 
What is water resistance?	When an object moves through the water, water resistance can act between the moving surfaces, acting to slow the movement down. 
What is gravity?	Gravity is a force that holds things to the Earth's surface and prevents things from floating off into the Earth's atmosphere. It ensures that unsupported objects fall back down to Earth. 
What are gears, levers and pulleys?	These are devices that allow a small amount of force to be increased to a larger force. These mechanisms are also known as simple machines . 



Key Vocabulary	
force	The things that allow the movement of objects around us
gravity	A force that puts two objects together - on Earth this keeps us on the ground or causes things to fall
air resistance	The frictional force of air acting against an object
water resistance	The frictional force of water acting against an object
friction	When one object rubs against another
mechanisms	A simple machine
levers	A length that is free to rotate on a pivot point (e.g. a see-saw)
pulleys	A loop of rope over one or more wheels that helps with lifting things
gears	Wheels with teeth that slot together which can increase a turning force
Isaac Newton	Born in 1643, a scientist who was famous for the discovery and understanding of gravity