

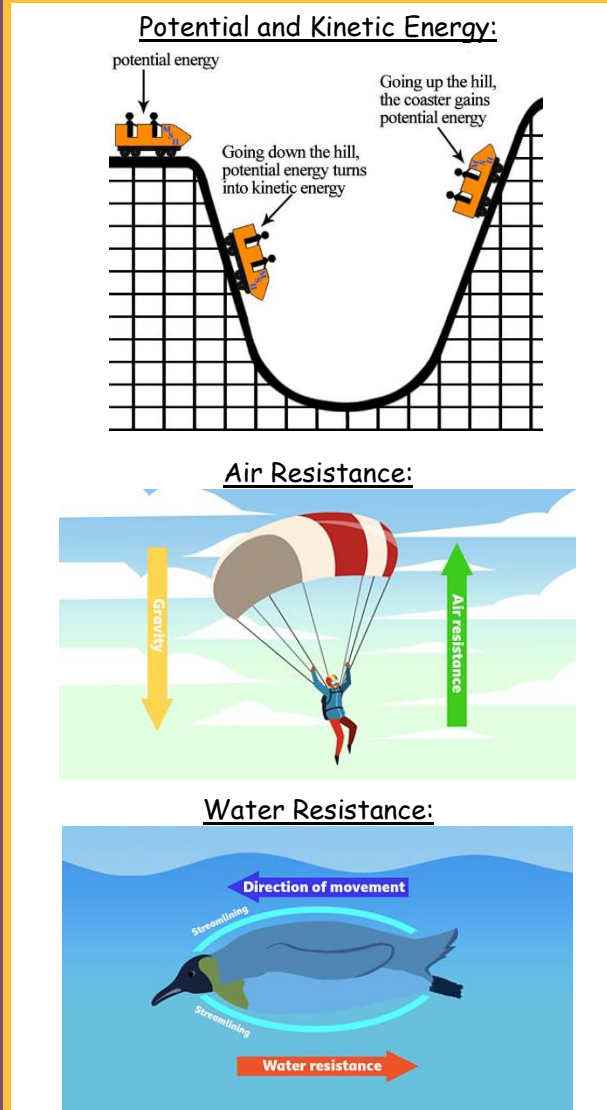


How do 'scream machines' use forces?

Key Vocabulary:

potential energy	The energy an object has because of where it is in relation to other objects.
kinetic energy	What makes an object move.
momentum	A measure of how hard it is to stop a moving object.
air resistance	The force of an object moving through air which affects how fast or slow objects move through air.
water resistance	A force that tries to slow objects down that are moving through water.
surface resistance	A force on objects moving across a surface.
gravity	A force that pulls everything down to the centre of the Earth
pulley	A wheel over which a belt, rope or chain is pulled to lift or lower a heavy object.

Diagrams/Images:



Key Facts:

Gravity is the Earth's natural pull.

Friction can cause objects to slow down.

If a surface is more slippery, it has less friction and therefore an object can move faster (e.g. ice skating).

If a surface is less slippery, it has more friction and therefore an object may move slower.

Moving through air creates less resistance than moving through water.

The water and air resistance of an object can be reduced/increased by its surface area and shape.

Some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Many rides use the transfer of potential energy to kinetic energy to move along the track.