

Year 5:

Forces

Key Learning

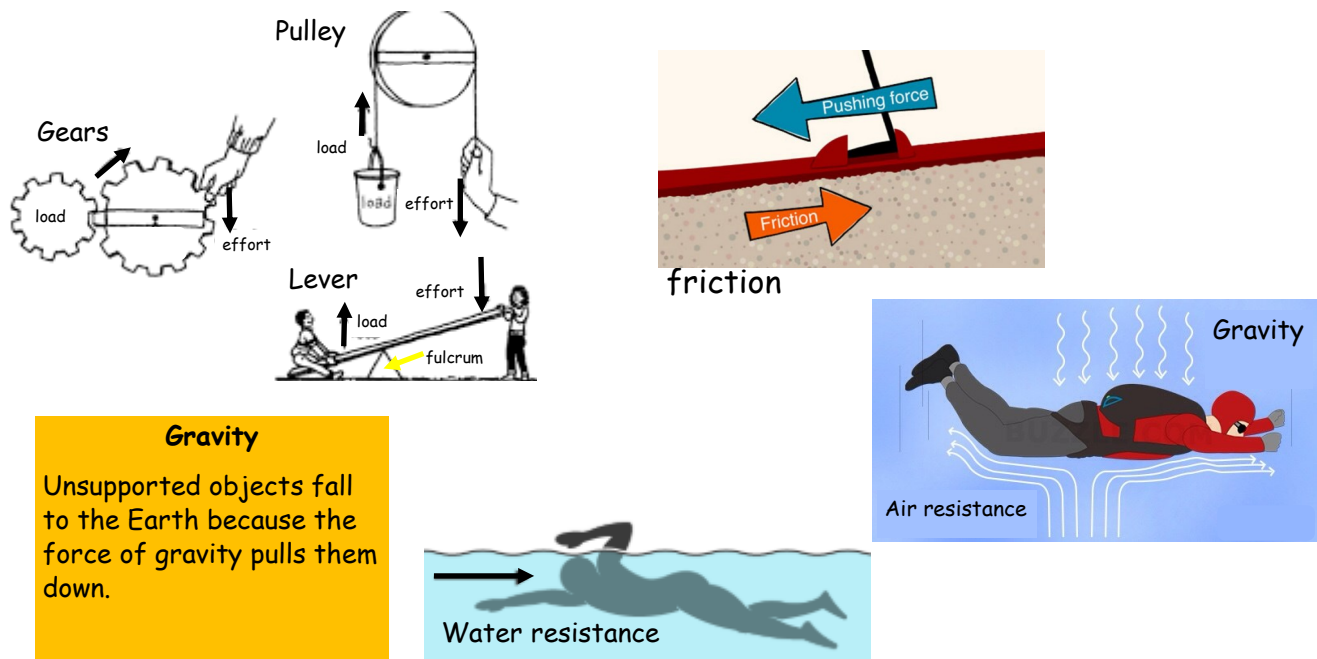
A **force** causes an object to start moving, stop moving, speed up, slow down or change direction.

A mechanism is a device that allows a small force to be increased to a larger force.

Pulleys - used to reduce the amount of force needed to lift a load. The more wheels in a pulley, the less force is needed to lift the weight.

Gears - used to change, direction or force of a motion. When 2 gears are connected they always turn in the opposite direction to each other.

Levers - can be used to make a small force lift a lighter load. A lever always rests on a pivot.



Gravity

Unsupported objects fall to the Earth because the force of gravity pulls them down.

Key Vocabulary

gravity	The force that pulls things to the ground on Earth (and other planets).
Resistance (air or water)	A type of friction caused by air and water pushing against any moving objects. We call this air resistance or water resistance.
friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
mechanism	Parts which work together in a machine. Examples of mechanisms are levers, pulleys and gears.
lever	A bar that is pushed or pulled to lift something heavy, force something heavy, force something open, or make a machine work.
pulley	A wheel with a groove round it to take a rope, used for heavy lifting.
gear	A set of toothed wheels working together in a machine.