

What should I already know?

- Things can move differently on different surfaces.
- Know that some forces need contact between 2 objects, but magnetic forces can act at a distance.
- Gravity is force acting between the Earth and a falling object.

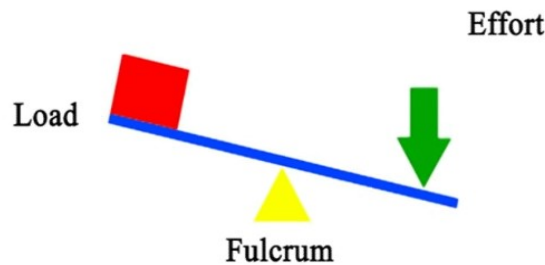
What will I know by the end?

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

Air resistance



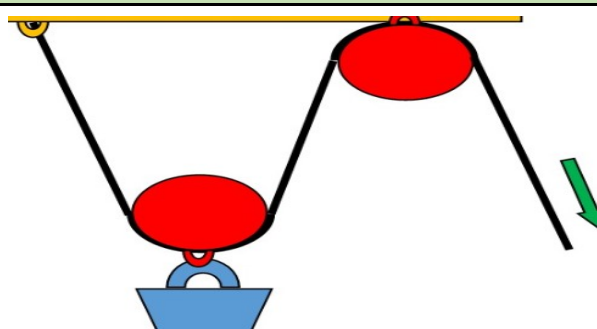
Lever



Scientific Skills and Enquiry

- Carry out tests to answer questions.
- Predict the outcome.
- Explain how to make a fair test .
- Record observations from experiments.
- Present findings verbally
- Identify scientific evidence used to support or refute ideas or arguments

Pulley



Vocabulary

Air Resistance: An opposing force for both falling objects and those moving on the ground.

Balanced force: An object stays still or continues to move at the same speed and in the same direction.

Buoyancy: In water if the weight is equal to or less than the upthrust, it floats. Things that float are buoyant.

Force: A push or a pull.

Friction: Resistance of motion when an object rubs against another.

Fulcrum: The place where a lever pivots.

Gear: Wheels with teeth that slot together. When one gear is turned, the other one turns as well.

Gravity: The force pulling everything down towards the Earth's centre

Lever: A long, sturdy body that rests on a support called a fulcrum.

Machine: A device that make it easier to do work by increasing the force you can apply.

Mechanism: A system of parts working together in a machine.

Newton: The unit of force.

Pulley: Made by looping a rope over one or more wheels. They are often used to lift heavy objects

Teeth: Gears are wheels with teeth that slot together.

Upthrust: The force that pushes an object up.

Water Resistance: A force that tries to slow things down that are moving through water.

Gears

