

In science we are learning about...

Forces and motion

Key vocabulary



- **Force** - a force is an influence that can change the motion of an object.
- **Friction**- the action of one surface or object rubbing against another and the resistance that one surface or object encounters.
- **Gravity** - the force that attracts a body towards the centre of the earth.
- **Air resistance** - A type of friction caused by air pushing against any moving object.
- **Water resistance** - a type of force that uses friction to slow things down that are moving through water.
- **Motion** - the action or process of moving or being moved.
- **Lever** - a bar used to pry or move something.
- **Pulley** - A pulley is a mechanical device which contains a wheel and rope/belt/chain to lift the heavy objects
- **Gear** - a toothed wheel that works with others to change the speed, force or direction of a motion.



Scientific enquiry



Questioning



Predicting



Testing



Observing & Recording



Measuring data



Interpreting results



Evaluating



Sticky knowledge



- Air resistance and water resistance are forms of friction. Air resistance slows things moving through air, and water resistance pushes against objects moving through water.
- Mechanisms work in a machine to create forces. Pulleys and Levers help to lift and pull objects, whilst gears can change the speed and direction of a force.
- Materials can be grouped using their properties. Changes can be made to materials which are reversible or irreversible. When materials are mixed, they can be separated through filtering, sieving and evaporation.

Links to previous learning

- To be able to describe the simple physical properties of a variety of everyday materials.
- To compare and group together materials on the basis of their simple physical properties.
- To compare how things move on different surfaces.
- To observe that some materials change state when they are heated or cooled.
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Aspirations

- Mechanical engineer
- Science teacher
- Inventor



Our characteristics

- Cooperation
- Problem solving and reasoning
- Making Links

