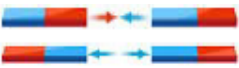




Key knowledge:

| Types of forces | |
|---|---|
| Magnetism | <p>North and South attract</p>  <p>North and North or South and South repel</p> |
| Air resistance | <p>Air resistance slows down moving objects, because air slows you down as you move through it.</p> <p>To travel faster through the air, things need to be streamlined.</p> |
| Water resistance | <p>Water resistance slows down moving objects, because water slows you down as you move through it.</p> <p>To travel faster through the water, things need to be streamlined.</p> |
| Friction | <p>Friction happens when two surfaces touch each other.</p> <p>Friction gives us grip and produces heat.</p> <p>Rougher surfaces slow things down a lot whereas smoother surfaces don't slow things down as much.</p> |
| Gravity | |
| <p>Gravity is the force that pulls objects down to the centre of the earth.</p> <p>Gravity stops things from floating away into space.</p> <p>When an object goes into the air (like a football), gravity pulls the object back down.</p> | |

Key concepts:

| | |
|-------------|-------------|
| Explaining | Recognising |
| Identifying | Comparing |

Possible experiences:

Design, make and test parachutes by dropping them off of the pirate ship.

Test water resistance when swimming during swimming lessons.

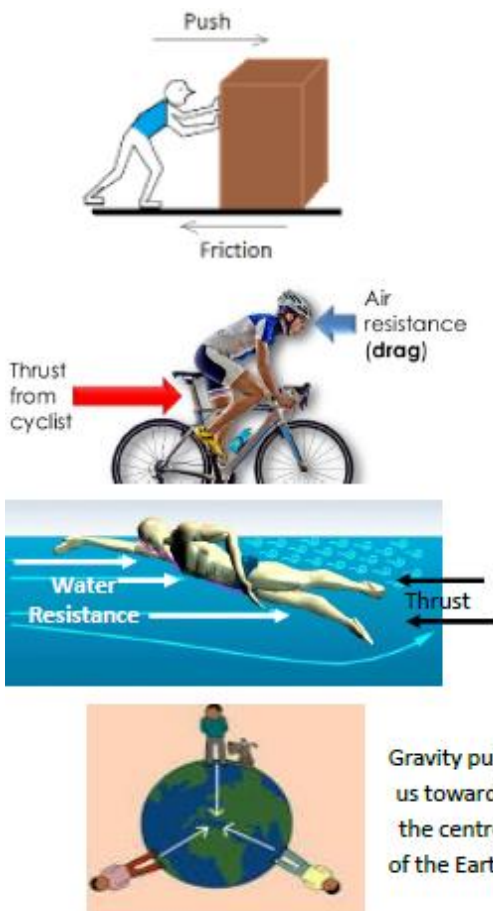
Recognise the impact of mechanisms on forces when using pulleys, levers and gears during technology lessons.

Key vocabulary:

| | |
|-------------|--|
| Streamlined | A shape that presents the least amount of distance in air or water |
| Surface | The top layer of something |
| Grip | To have a good connection with a surface |
| Drag | To cause something to slow down |
| Centre | This middle of something |
| Lever | A simple machine used to move an object or operate a machine. |
| Pulley | A wheel which a cord passes through; it helps to raise heavy weights. |
| Mass | The measure of how much matter is in an object. |
| Gear | Toothed wheel that engages with another to change speed or direction of a machine. |

Diagrams:

Forces in action



Gravity pulls us towards the centre of the Earth.