

Year: 5
Term: Spring 2
Topic: Physics - Forces

St Dennis Primary Academy

"Everyone matters, everyone succeeds, every moment counts"



A force is a push or pull that acts upon an object. We can't see forces, but they are an important part of our everyday lives. We push and pull objects to do many different things. When we push or pull objects we can move the object, change the shape of the object or make the object change direction.

Gravity is a force which **acts at a distance**. It is a **pull force** that pulls objects towards the centre of the Earth.



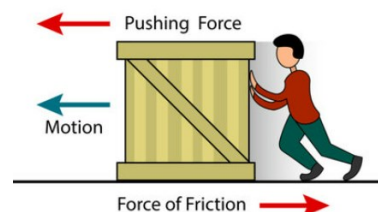
Air resistance is a force that acts in the **opposite direction to gravity**. It acts between a moving object and the air molecules around it, slowing the object down. Air resistance is a type of friction.



Water resistance is the force responsible for making it difficult for us to move through the water. It acts between a moving object and the water molecules around it, slowing the object down.



Friction is a force created between two surfaces when they rub together. Friction creates heat and always slows an object down.



Glossary

- drag** The frictional force experienced by an object moving through a fluid or air.
- force** A push or pull that acts upon an object that can cause it to move, change shape or change direction.
- friction** The force that acts upon one surface when it moves against another.
- gear** Two wheels with serrated or notched rims that mesh together to transfer movement.
- gravity** A pull force that acts at a distance.
- lever** Usually a rigid bar with a pivot point close to one end, allowing movement at one end of the lever to be converted into a smaller movement at the other, which effectively magnifies the force applied.
- pulley** A wheel with a grooved rim that allows the transfer of movement via a belt or band.
- repel** To push away.
- resistance** An opposing or slowing force.
- streamlined** A shape which minimises the profile presented by an object in order to minimise the resistance it encounters when moving through a liquid or gas.
- upthrust or buoyancy** The upward force exerted on a body by a fluid that surrounds it, equal and opposite to the weight of the water displaced.