



St John Fisher RC Primary School

Year 5 Knowledge Organiser – Autumn One – Science - Forces

What we will be learning

I know:

Lesson 1

- A stationary object will move when the force is greater than the friction

Lesson 2

- Air resistance is a friction force when something is travelling through the air
- How the surface area of an object effects the air resistance

Lesson 3

- How to plan an experiment to investigate air resistance Lessons 3

Lesson 4

- Water resistance is the water force when an object moves through water

Lesson 5

- How to plan an experiment to investigate water resistance

Key Facts to Remember

- Gravity is a non-contact force caused by objects with mass pulling each other.
- Heavier objects do not fall to the ground faster than lighter objects.
- Air resistance is a type of friction force on an object moving through air.
- Parachutes have a large surface area, to give them greater air resistance to slow down the skydiver.
- Water resistance is a force that slows down or stops objects moving through water or other fluids.
- More streamlined objects will move through water more easily and with less effort.
- Friction is a contact force that is caused by one object being pushed across the surface of another.
- Friction can stop or slow down a moving object.
- Some mechanisms allow a smaller force to have a greater effect.

Key Vocabulary and Glossary

Force	A force is a push or pull that can make an object move, change speed, direction, or shape.
Gravity	Gravity is the force that pulls objects towards the centre of a planet.
Air resistance	Air resistance is a type of friction that occurs when an object moves through air, causing the air to push back and slow the object down.
Water resistance	Water resistance is a force that slows down or stops objects moving through water or other liquids.
Friction	Friction is the force that makes it harder for two surfaces to slide or move against each other

Key Knowledge:

A stationary object will only move when the force applied is greater than the friction, which acts in the opposite direction to the movement.

Levers, pulleys and gears are all mechanisms that will allow a smaller force to have a greater effect.

