



Key Vocabulary

Air resistance A force that is caused by air with the force acting in the opposite direction to an object moving through the air

Force -A push or pull upon an object resulting from its interaction with another object

Friction resistance of motion when one object rubs against another

Water resistance -A force that is caused by water with the force acting in the opposite direction to an object moving through the water

Fair Test when you only change one variable

Variable -

Gravity -The force that attracts a body towards the centre of the earth

Prediction

Evaluation

Results

Mass -The weight measured by an objects acceleration under a given force or by the force exerted on it by gravity

Pull force -To draw or haul towards oneself or itself, in a particular direction

Push force -To move something in a specific way by exerting force

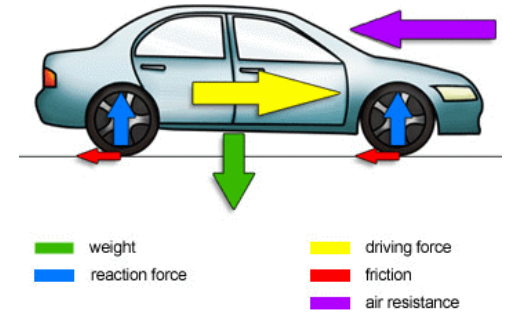
Key Knowledge

- The surface in which a vehicle travels on will affect the speed – this force is called friction
- Different vehicles will travel at a variety of speeds on the same surface
- When forces are balanced there is no movement
- There are many forces acting upon a vehicle at any time

Enquiry Skills

In this unit the pupils will:

- Compare how different things move and group them
- Raise questions to investigate
- Carry our tests to find out how things move on different surfaces.
- Gather and record data to find answers to their questions
- Try to explain results using scientific reasoning
- Make predictions
- Set up simple fair tests



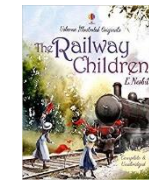
Trains, Planes & Automobiles

Kingfishers: Forces



Which ramp will allow the car to travel at the fastest speed?

Why is the vehicle slower on some of the ramps?



Balanced Forces



Unbalanced Forces