



Marston Thorold's Primary School Knowledge Organiser

Term: Autumn 1

Subject: Science

Year Group: 3/4



Vocabulary		
Word	Picture	Definition
force		A push or a pull
push		To move something away from you.
pull		To move something towards you.
contact		Something touching another thing.
friction		A force that acts between 2 surfaces that are moving across each other.
surface		The top layer of something.
resist movement		To prevent something moving

Friction

Friction occurs between **two surfaces** that slide **against each other**.

Friction is the force that acts against you when you try to move something heavy.

The **rougher** the surface, the **stronger** the friction.

Friction produces heat, like when you rub your hands together.

Using and Reducing Friction

Friction is useful when it helps us **grip the floor** with our shoes and stop car tyres skidding.

However, for people like ice skaters, it is a good thing that ice causes very little friction.

Friction can be reduced by using methods like **lubrication**. Your door hinges will probably be lubricated by oil to reduce the wear and tear caused by friction.



Pushes

Pulls

Forces will change the motion of an object. They will either make it start to move, speed up, slow it down or even make it stop.

Different **surfaces** create different amounts of **friction**. The amount of **friction** created by an object moving over a **surface** depends on the roughness of the **surface** and the object, and the **force** between them.

The driving **force** pushes the bicycle, making it move.

Friction pushes on the bicycle, slowing it down.

