

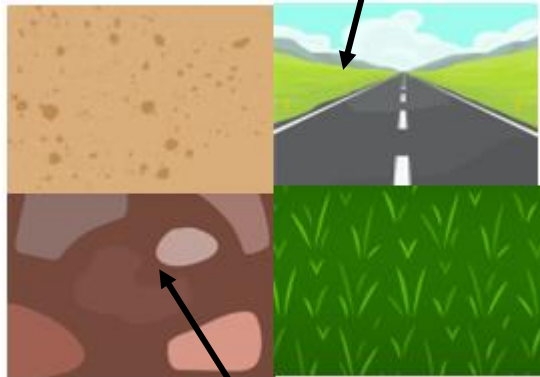
Year 3 Knowledge Organiser- What do we know about forces?

What will I learn?

In this topic we will learn:

- How objects move
- How the surface affects the way an object moves
- Which materials are magnetic
- Magnets can attract and repel each other

Easier to ride on the road, because it is smoother so there is less friction



Different
surfaces

Harder to ride on gravel
because it is rough, so there
is more friction

Previous learning

What will we find
in Grandpa's attic?

Who's afraid of
the big bad wolf?

You should already know:

Year 1- objects are made of different materials.

Year 2 - I know the names of everyday materials

Vocabulary Dozen

attract	To pull or draw together
force	Something that makes things move
friction	When two surfaces rub against each other
magnet	Something that can pull certain pieces of metal towards itself
North	A type of direction pointing upwards
pull	A force which makes something move backwards
push	A force which makes something move forwards
repel	Force back
South	A type of direction pointing downwards
strength	How strong something is
surface	The top layer of something
twist	A bent, curling shape

Key Knowledge

How do objects move?

A force must be applied to make anything move.

How does the surface affect the way an object moves?

The surface can make an object move faster or slower, depending on the amount of friction between the two surfaces. If the surface material is rough, it is harder for an object to move because it creates more friction. This would make an object travel slower. If the surface material is smooth, it is easier for an object to move because there is less friction. This would make the object travel faster.

Which materials are magnetic?

Magnetic materials are always made of metal, but not all metals are magnetic! For a metal to be magnetic, it must contain iron. Iron is magnetic. Most other metals, for example aluminium and copper, are not magnetic.

Magnets can attract and repel each other

Every magnet has a north pole and a south pole. When two magnets are close, they create a pushing or a pulling force. If you put a north pole near a south pole they attract, because they create a force which pulls them towards each other. When you put the same two poles near each other, for example north and north, they repel each other.

Opposite poles attract, the same poles repel each other.

Useful Weblinks



[What is a force?](#)



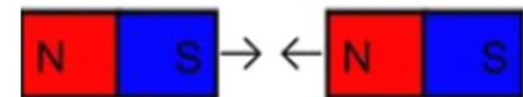
[Which materials are magnetic?](#)



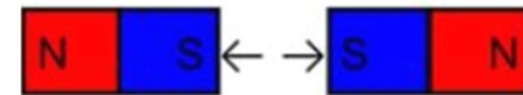
[What is friction?](#)



[What is a magnet?](#)



Opposite poles attract



Same poles repel