

# Science - Year 3 - Spring 2 Forces and Magnets

## Basic Skills

<b>Key Language &amp; Vocabulary</b>	Surfaces	Friction
Push/pull (repel/attract)	Forces	Magnetic
North pole/ South pole	Compare	Explore
Material	Movement	Strength
Metal, iron, steel		

## Values

Kindness

## Learnacy and the Y Factor

Sharing ideas

How could you predict if something was magnetic or not?

How could you find out if big magnets are always stronger than small magnets?

Explain why some surfaces seem 'slower' than others.

How many different pushes and pulls can you find in your home/school?

Do all pushes and pulls need objects to touch?

Do your results help you to answer the question?

What do you predict will happen?

What do the measurements tell us?

## Rich Learning Experiences

### Key Learning Objectives

Compare how things move on different surfaces

Notice that magnetic forces act at a distance.

Observe how magnets attract or repel each other.

Predict whether two magnets will attract or repel, depending on which poles are facing.

Observe how magnets attract some materials but not others.

Compare and group together a variety of materials on the basis of whether they are attracted to a magnet.

**Make and record a prediction before testing.**

Explain what they have found out using measurements to say whether this helps answer the question.

### Key Knowledge and Skills

Compare how different things move

- Most forces need direct contact e.g. pushes and pulls
- Carry out tests to find out how far things move on different surfaces

Describe magnets as having two poles.

Sort materials into those which are magnetic and those which are not.

Exploring different magnet strengths and finding a fair way to compare them.

Looking for patterns for ways in which magnets behave in relation to each other.

Identify how these properties make magnets useful in everyday items .

### Cross-curricular Links

Maths (Measurement and drawing tables)

DT - suggest creative uses for different magnets.

### Enrichment Opportunities ('Learning in Action')

*How many skittles can you knock over with a toy car? (using different ramps)*

*Move objects through a table, water. Make a paper clip jump?*