



Topic Title: Terrific Tests! Year 3 Term Summer 2



Skills Taught: Ask relevant questions and using different types of scientific enquiries to answer them.

Set up simple practical enquiries, comparative and fair tests.

Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.

Gather, record, classify and present data in a variety of ways to help in answering questions.

Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.

Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Identify differences, similarities or changes related to simple scientific ideas and processes.

Use straightforward scientific evidence to answer questions or to support their findings.

Recap previous Scientific topics in Year 3 including muscles and skeletons/ nutrition/ digestive system and teeth, light & sound, rocks and fossils.

Compare how things move on different surfaces, notice that some forces need contact between two objects, but magnetic forces can act at a distance, observe how magnets attract or repel each other and attract some materials and not others, compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles, predict whether two magnets will attract or repel each other, depending on which poles are facing.

Immersion Activity/Provocation: Mantle of the Expert activities- children to research the best surfaces for a new play park.

Key question?

Why did that happen?

Big Questions:

How do magnets attract and repel each other?

What materials are magnetic?

Is it easier for a car to travel on some surfaces?

How do I set up a fair test?

What conclusions can I draw from my results?

Have I answered my enquiry question?

Have I measured and recorded accurately?

How should I record my results?

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Enquiry Question: Why did that happen?

Focus Texts: Non-fiction collection



Challenge for All:

	<u>Skills and Knowledge</u>
Some children will:	<ul style="list-style-type: none">• Ask simple questions.• Observe closely, using simple equipment.• Perform simple tests.• <i>Notice and describe how things move, using simple comparisons such as faster and slower.</i>• <i>Compare how different things move.</i>
Most children will:	<ul style="list-style-type: none">• Ask simple questions.• Observe closely, using simple equipment.• Perform simple tests.• Identify and classify.• Use observations and ideas to suggest answers to questions.• Gather and record data to help in answering questions.• Compare how things move on different surfaces.• Notice that some forces need contact between two objects, but magnetic forces can act at a distance.• Observe how magnets attract or repel each other and attract some materials and not others.• Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.• Describe magnets as having two poles.• Predict whether two magnets will attract or repel each other, depending on which poles are facing.
Some children will progress further and will:	<p>As above but including-</p> <ul style="list-style-type: none">• Plan enquiries, including recognising and controlling variables where necessary.• Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work.• Take measurements, using a range of scientific equipment, with increasing accuracy and precision.

Enrichment/Outdoor Learning:

Pupils in years 3 should be given a range of scientific experiences to enable them to raise their own questions about the world around them. They should start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; recognise when a simple fair test is necessary and help to decide how to set it up; talk about criteria for grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. They should learn how to use new equipment appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. They should also recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences. Pupils might work scientifically by: comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; exploring the strengths of different magnets and finding a fair way to compare them; sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.

Previously....(Links to prior learning) Recap previous Scientific topics in Year 3 including muscles and skeletons/ nutrition/ digestive system and teeth, light & sound, rocks and fossils.

Key Vocabulary:

Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull, Prediction, Variable, Results, Fair Test

Cross-curricular links:

Maths: Data-bar charts, tally charts

English- Instruction writing, report writing

Celebration of knowledge and skills gained (opportunities for assessment):

Children to make a ‘working scientifically’ display board for the classroom.