



Key stage 2 Science planning 2022-2023: Year 3

Working Scientifically

National curriculum objectives:

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- ♣ asking relevant questions and using different types of scientific enquiries to answer them
- ♣ setting up simple practical enquiries, comparative and fair tests
- ♣ making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- ♣ gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
 - ♣ recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- ♣ reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- ♣ using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- ♣ identifying differences, similarities or changes related to simple scientific ideas and processes
- ♣ using straightforward scientific evidence to answer questions or to support their findings.

These are the scientific enquiry skills which run throughout the Year 3 units of work.

Year 3

	Plants	Animals including humans
<p>Year 3 Lockdown EYFS and Y1</p>	<p><u>National curriculum objectives:</u></p> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> ♣ identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers ♣ explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant ♣ investigate the way in which water is transported within plants ♣ explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 	<p><u>National curriculum objectives:</u></p> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> ♣ identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat ♣ identify that humans and some other animals have skeletons and muscles for support, protection and movement.
	<p><u>Key questions:</u></p> <ul style="list-style-type: none"> • How do we know if something is alive? • What do plants need to grow? • Why and how do plants' needs vary? • Why do plants have roots? • How is water transported in plants? • Why do plants have leaves? • Why do plants have flowers? • How do different plants disperse their seeds? • What do seeds need to germinate? <p><i>Elements of this unit will be revisited throughout the year as plants grow and change with the seasons.</i></p>	<p><u>Key questions:</u></p> <ul style="list-style-type: none"> • Which foods do humans need for growth and which do they need for energy? • What is a balanced diet? • Why do humans have skeletons? • How do muscles allow humans to move? • How are animals without internal skeletons protected?

	Rocks	Light	Forces and Magnets
Year 3 Lockdown EYFS and Y1	<p><u>National curriculum objectives:</u></p> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> ♣ Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties ♣ Describe in simple terms how fossils are formed when things that have lived are trapped within rock ♣ Recognise that soils are made from rocks and organic matter 	<p><u>National curriculum objectives:</u></p> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> ♣ Recognise that they need light in order to see things and that dark is the absence of light ♣ Notice that light is reflected from surfaces ♣ Recognise that light from the sun can be dangerous and that there are ways to protect their eyes ♣ Recognise that shadows are formed when the light from a light source is blocked by an opaque object ♣ Find patterns in the way that the size of shadows change 	<p><u>National curriculum objectives:</u></p> <p><i>Pupils should be taught to:</i></p> <ul style="list-style-type: none"> ♣ Compare how things move on different surfaces ♣ Notice that some forces need contact between 2 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 2 poles ♣ Predict whether 2 magnets will attract or repel each other, depending on which poles are facing
	<p><u>Key questions:</u></p> <ul style="list-style-type: none"> • What do we already know about rocks? • What are the different types of rocks and how were these formed? • Which rocks are the hardest? • Which rocks are the most water permeable? • What are fossils and how were they formed? • What can we learn from fossils? • What is soil made of? • Which type of soil would be the best for someone who lives in a very wet area of Britain? 	<p><u>Key questions:</u></p> <ul style="list-style-type: none"> • What do we need in order to see things? • How is light reflected from surfaces? • What are shadows and why are they formed? • How do shadows behave? • How can we protect our eyes? 	<p><u>Key questions:</u></p> <ul style="list-style-type: none"> • What is a force? • How do things move on different surfaces? • How do magnetic forces work? • How can we use magnets to sort materials? • Which magnet is the strongest? • What are the magnetic poles?