



Science Core Curriculum
Year 3

Unit	Animals including humans What makes us	Plants Lifecycles Exploring the world of plants	Rocks	Light	Forces	Scientific enquiry
Substantive Knowledge	<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 eatIdentify that humans and some other animals have skeletons and muscles for support, protection and movement	<ul style="list-style-type: none">Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowersExplore 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 plantInvestigate the way in which water is transported within plantsExplore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	<ul style="list-style-type: none">Compare and group together different kinds of rocks on the basis of their appearance and simple physical propertiesDescribe in simple terms how fossils are formed when things that have lived are trapped within rockRecognise that soils are made from rocks and organic matterExplore how and why [rocks] might have changed over time (non-statutory)	<ul style="list-style-type: none">Recognise that they need light in order to see things and that dark is the absence of lightNotice that light is reflected from surfacesRecognise that light from the sun can be dangerous and that there are ways to protect their eyesRecognise that shadows are formed when the light from a light source is blocked by an opaque objectFind patterns in the way that the size of shadows change	<ul style="list-style-type: none">Compare how things move on different surfacesNotice that some forces need contact between 2 objects, but magnetic forces can act at a distanceObserve how magnets attract or repel each other and attract some materials and not othersCompare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materialsDescribe magnets as having 2 polesPredict whether 2 magnets will attract or repel	<ul style="list-style-type: none">Asking relevant questions and using different types of scientific enquiries to answer themMaking systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tablesSetting up simple practical enquiries, comparative and fair testsIdentifying differences, similarities or changes related to simple scientific ideas and processes Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusionsUsing straightforward scientific evidence to answer questions or to

					each other, depending on which poles are facing	support their findings Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions <ul style="list-style-type: none">• Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
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<p>Disciplinary knowledge</p>	<ul style="list-style-type: none"> • 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 • Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 	<ul style="list-style-type: none"> • Ask relevant questions and using different types of scientific enquiries to answer them • Set up simple practical enquiries, comparative and fair tests • Making systematic and careful observations • Reporting on findings from enquiries, including oral and written explanations • 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 • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 	<ul style="list-style-type: none"> • Set up simple practical enquiries, comparative and fair tests • 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 • Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard 	<ul style="list-style-type: none"> • Set up simple practical enquiries, comparative and fair tests • 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 • Use straightforward scientific evidence to answer questions or to support their findings • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions 	<ul style="list-style-type: none"> • 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 • 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 	<ul style="list-style-type: none"> • Asking relevant questions and using different types of scientific enquiries to answer them • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Identifying differences, similarities or changes related to simple scientific ideas and processes Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Setting up simple practical enquiries, comparative and fair tests • Using straightforward scientific evidence to answer questions or to support their findings Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
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Key Vocab	Animals including humans – what makes us?	Plants	Rocks	Light	Forces and magnets	Scientific Enquiry
	nutrition carbohydrate protein vitamin mineral nutrition label portion energy balanced diet vertebrate invertebrate endoskeleton exoskeleton hydrostatic skeleton humerus ulna radius tibia fibular endoskeleton vertebrate skull rib cage spine muscle contract hamstrings biceps diaphragm	nutrients fertiliser nursery potassium stunted chlorophyl stomata xylem photosynthesis UV light xylem phloem absorb stomata transpiration anther stigma style filament reproduction pollination pollen nectar seed dispersal pollinator germination vulnerable anchor sapling formation	igneous rocks intrusive igneous rock extrusive crystals magma sedimentary rock metamorphic rock limestone marble sandstone weathering chemical weathering physical weathering biological weathering acid rain appearance texture submerged erosion receding fossil extinct sediment embedded amber decompose fragments clay soil chalky	light source natural artificial reflect vitamin D ultraviolet rays sunburn exposure protection fluorescent high visibility reflective surface materials shadow opaque sundial rays blocks position cast opposite direction length size shape closer further puppet	force contact force non-contact forces air resistance friction motion surface resistance texture tilt magnet attract repel bar magnet horseshoe magnet magnetism magnetic magnetic field iron steel attract non-magnetic materials recycle compass magnetic needle magnetic north direction orienteering	solar renewable energy scientific investigation prediction plausible record results data table graph acid alkali PH method practical conclusion evidence explanation compare enquiry baking measurements fair test control experiment conclusive scientific knowledge equipment diagram collated variable

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