Overview Science Year 3

	Autumn Term	Spring Term	Summer Term
Big Question	What was here before me?	How do living things survive?	What creates change?
Other Subject links	Prehistoric (dinosaurs), Stone age, light, fossils rocks & soil, map skills.	Bronze age & their trading routes in the Middle East, food & diet. Iron age	Romans Forces and magnets/Materials (science)

	Autumn 1 Rocks	Autumn 2 Light	Spring 1 Animals (incl humans)	Spring 2 Plants	Summer 1 Forces and magnets	Summer 2 Forces and Magnets (cont) Light
National Curriculum Working Scientifically - 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	- 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	- 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	- 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	- 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	- 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	- 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

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.						- Recognise that shadows are formed when the light from a light source is blocked by an opaque object
Knowledge	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.	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.	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.	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 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.	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.	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. Find patterns in the way that the size of shadows change.
Vocabulary	Rocks, igneous, metamorphic, sedimentary, anthropic, permeable, impermeable, body fossil, Mary Anning, cast fossil,	Light source, dark, reflect, ray, mirror, bounce, visible, beam, sun, glare, travel, straight, opaque, shadow, block,	Nutrients, nutrition, carbohydrates, protein, fats, vitamins, minerals, water, fibre, skeleton, bones, joints, endoskeleton, exoskeleton,	Flower, seed, leaf, stem, roots, petal, pollen, life cycle, dispersal, pollination, fertilisation, germination, ovary, ovule, sepal, stamen,	Force, push, pull, friction, surface, magnet, magnetic, magnetic field, pole, north, south, attract, repel, compass.	Force, push, pull, friction, surface, magnet, magnetic, magnetic field, pole, north, south, attract, repel, compass.

	mould fossil, extinct, organic matter, top soil, sub soil	transparent, translucent.	hydrostatic skeleton, vertebrates, invertebrates, muscles, contract, relax.	anther, filament, stigma, style, photosynthesis.		Light source, dark, reflect, sun, glare, travel, straight, opaque, shadow, block.
Skills	a) I can compare and group together different rocks on the basis of their appearance and features. b) I can describe and explain how different rocks can be useful to us. c) I can describe and explain the differences between sedimentary and igneous rocks. d) I can describe in simple terms how fossils are formed when things that have lived are trapped. e) I can recognise that soils are made from rocks and organic matter.	a) I can recognise that I need light in order to see things. b) I can recognise that dark is the absence of light. c) I can notice that light is reflected from surfaces. d) I can recognise that light from the sun can be dangerous and that there are ways to protect my eyes. e) I can recognise that shadows are formed when the light from a light source is blocked by a solid object. f) I can find patterns in the way that the size of shadows change.	a) I can explain the importance of a nutritionally balanced diet. b) I can describe how nutrients, water and oxygen are transported within animals and humans. c) I can identify that animals, including humans, cannot make my own food: they get nutrition from what they eat. d) I can describe and explain the skeletal system of a human. e) I can describe and explain the muscular system of a human.	a) I can identify and describe the functions of different parts of flowering plants. (roots, stem/trunk, leaves and flowers). b) I can explore the requirement of plants for life and growth (air, light, water, nutrients from soil, a room to grow). c) I can explain how they vary from plant to plant. d) I can investigate the way in which water is transported within plants. e) I can explore the part that flowers play in the life cycle of flowering plants, including pollination, formation and seed dispersal.	a) I can compare how things move on different surfaces. . b) I can observe that magnetic forces can be transmitted without direct contact c) I can notice that some forces need contact between two objects, but magnetic forces can act at a distance. d) I can identify some magnetic materials. e) I can describe magnets having two poles (N & S).	a) I can observe how some magnets attract or repel each other. b) I can classify which materials are attracted to magnets and which are not. c) I can compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet d) I can predict whether two magnets will attract or repel each other depending on which poles are facing. <u>Light</u> e) I can recognise that shadows are formed when the light from a light source is blocked by a solid object. f) I can find patterns in the way that the size of shadows change.
Experiment/s	Week 7 - Soil formation and comparison experiment.	Week 3 - Creating shadows experiment	Week 5 - Muscle activity experiment	Week 3 - Celery water transportation experiment	Week 3 - Toy car friction experiment	Week 5/6 - Light and shadow changes throughout the day experiment
Extended writing	Week 5 - Non-	Week 4 - Instructions on how to stay safe in	Week 6 - Persuasive letter to the	Week 6 - Healthy cookbook recipe using	Week 5 - Fact File about magnets and their uses.	Week 4 - Non-chronological report about magnets and

	chronological report about rocks and their uses.	the sun.	Government (end project).	the potatoes grown		how they work.
How does it link to the big question?	Fossils help to explain who came before humans on Earth. Light begins life on Earth - it starts the day.		Diet, muscular and skeletal systems work together to keep humans alive. Comparison of what plants need to survive and what humans need to survive.		Change is created by force and magnetism. The sun causes shadows to change over the course of a day. Links to change caused by the Earth spinning.	