

Term		Autumn One	Autumn Two	Spring One	Spring Two	Summer One & Two
Knowledge		Forces and magnets	Light	Rocks	Plants	Animals including humans linked to SRE
Scientific enquiry		Classifying Fair testing	Fair testing Researching Classifying	Classifying Researching Fair testing	Researching Classifying Fair Testing	Researching Classifying
Working scientifically skills		Predictions Gather/record results Ask scientific questions Comparing Draw conclusions Interpret results	Observe closely Predictions Ask scientific questions Draw conclusions	Observe closely Predictions Gather/record results Ask scientific questions Comparing	Observe closely Predictions Gather/record results Ask scientific questions Comparing Draw conclusions	Ask scientific questions Observe closely
Building science capital		Science Museum.	Visit from electrician. Shadow puppet show?	History museum	Visit to Forty hall / local park. Visit from gardener.	Zoo
Composite knowledge		What is force? Which materials are magnetic? How does force affect our lives/how are magnets used in everyday life? What are the different types of magnets?	What is light? What is a light source? How does light travel? How does sun shine? How do we see? How are shadows formed? How does the moon shine? Do shadows move? What can we do to stay safe in the sun?	What are the different types of rocks? How are they formed? Where are they from? What is erosion? What is soil made from?	What are plants? What types of plants are there? How do we use plants in our everyday life? How do plants grow? What do plants need to grow?	What is an animal? What is the difference between humans and animals? What are the main parts of the human body? What organs do humans have and their functions? How do humans and animals take care of their offspring? What is the life cycle of humans? Life cycle of a various animals
Component knowledge		compare how things move on different surfaces notice that some forces need contact between	-recognise that they need light in order to see things and that dark is the absence of light	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	-identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	-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

		<p>two objects, but magnetic forces can act at a distance</p> <p>observe how magnets attract or repel each other and attract some materials and not others</p> <p>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</p> <p>describe magnets as having two poles</p> <p>predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>	<p>-notice that light is reflected from surfaces</p> <p>-recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>-recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>-find patterns in the way that the size of shadows change</p>	<p>describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>recognise that soils are made from rocks and organic matter</p> <p>explore different kinds of rocks and soils, including those in the local environment</p>	<p>-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</p> <p>-investigate the way in which water is transported within plants</p> <p>-explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p>	<p>-identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>
Vocabulary		Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Pull, Push, Gravity.	Light, Shadows, Mirror, Reflective, Dark, Reflection	Permeable, impermeable, durable, metamorphic, igneous, sedimentary, lava, molten, Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Absorbent	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower	herbivore, carnivore, omnivore, nutrition, diet, food chain, data, table, bar chart carbohydrates, proteins, dairy, fats, sugars, vitamins, minerals, fibre, growth, repair, health, energy
Links to prior knowledge		Year 2 Floating and sinking. Heavy and light.	Year 2 Reflective materials, transparent, opaque Sorted materials into groups	Year 2 Properties of materials, waterproof/absorbent.	Year 2 What do plants need to survive?	Year 2 Food chains
Key knowledge		Compare how things move on different surfaces.	Recognise that they need light in order to see things and that	Compare and group together different kinds of rocks on the basis of	Identify and describe the functions of different parts of	Identify that animals, including humans, need the right types and amount of nutrition, and that they

for assessment		<p>Notice that some forces need contact between two forces but magnetic forces can act at a distance.</p> <p><u>D</u>escribe magnets as having two poles</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are</p> <p>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</p>	<p>dark is the absence of light</p> <p>Notice that light is reflected from surfaces</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>Find patterns in the way that the size of shadows change</p>	<p>their appearance and simple physical properties.</p> <p>Describe in simple term show fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter</p>	<p>flowering plants: roots, stem/trunk, leaves and flowers</p> <p>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</p> <p>Investigate the way in which water is transported within plants</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation, and seed dispersal</p>	<p>cannot make their own food; they get nutrition from what they eat</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>
Cross-curricular links		<p>Maths - Bar graph / table showing the measurement of different magnetic fields.</p>	<p>Literacy – Information booklet about dangers of the sun.</p> <p>D&T – chn create own puppet and theatre for puppet show.</p>	<p>Literacy – poster/leaflet on the 3 different types of rock.</p> <p>Art – sketches of different uses of rocks.</p>	<p>Art – observation drawings of plants.</p> <p>Maths – measuring and estimating flower stems.</p> <p>Reading – prepare questions for gardener visit.</p>	<p>Literacy – Non-Chronological report on healthy eating.</p> <p>Maths – Data/Statistics on favourite vegetables.</p>
Oracy & Outdoor learning links		<p>Hunt around the school ground for magnetic objects.</p>	<p>Measurement shadows in relation to time of day/year.</p>	<p>Look around the school to find different types of rocks/ or things made out of rocks.</p>	<p>Art – observation drawings of plants.</p> <p>Plant seeds.</p>	<p>Fact run body parts.</p>