

Term	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Knowledge	<b>Forces and magnets</b>	<b>Light</b>	<b>Rocks</b>	<b>Animals including humans</b>	<b>Plants</b>	<b>Plants</b>
Scientific enquiry	Classifying Fair testing	Fair testing Researching Classifying	Classifying Researching Fair testing	Researching Classifying	Researching Classifying Fair Testing	Researching Classifying Fair Testing
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	Ask scientific questions Observe closely	Observe closely Predictions Gather/record results Ask scientific questions Comparing Draw conclusions	Observe closely Predictions Gather/record results Ask scientific questions Comparing Draw conclusions
Building science capital	Science Museum.	Visit from electrician. Shadow puppet show?	History museum	Zoo	Visit to Forty hall / local park. Visit from gardener.	Visit to Forty hall / local park. Visit from gardener.
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 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	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 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 pollination? How do they reproduce? (SRE link)
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 that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get	-identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	-explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

	<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>nutrition from what they eat</p> <p>-identify that humans and some other animals have skeletons and muscles for support, protection and movement</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>	
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	herbivore, carnivore, omnivore, nutrition, diet, food chain, data, table, bar chart carbohydrates, proteins, dairy, fats, sugars, vitamins, minerals, fibre, growth, repair, health, energy	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower
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 Food chains	Year 2 What do plants need to survive?	Year 2 What do plants need to survive?
Key knowledge for assessment	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	Compare and group together different kinds of rocks on the basis of their appearance and	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make	Identify and describe the functions of different parts of flowering plants: roots,	Identify and describe the functions of different parts of flowering plants: roots,

	<p>two forces but magnetic forces can act at a distance.  <u>Describe</u> magnets as having two poles  Observe how magnets attract or repel each other and attract some materials and not others  Predict whether two magnets will attract or repel each other, depending on which poles are  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  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>	<p>simple physical properties.  Describe in simple term show fossils are formed when things that have lived are trapped within rock.  Recognise that soils are made from rocks and organic matter</p>	<p>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>	<p>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>	<p>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>
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.  D&amp;T – chn create own puppet and theatre for puppet show.</p>	<p>Literacy – poster/leaflet on the 3 different types of rock.  Art – sketches of different uses of rocks.</p>	<p>Literacy – Non-Chronological report on healthy eating.  Maths – Data/Statistics on favourite vegetables.</p>	<p>Art – observation drawings of plants.  Maths – measuring and estimating flower stems.  Reading – prepare questions for gardener visit.</p>	<p>Art – observation drawings of plants.  Maths – measuring and estimating flower stems.  Reading – prepare questions for gardener visit</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>Fact run body parts.</p>	<p>Art – observation drawings of plants.  Plant seeds.</p>	<p>Art – observation drawings of plants.  Plant seeds.</p>