


<div>  <div>Science Curriculum – Year 3 and 4 – Cycle A</div> </div>						
	Non- Negotiables					
Year 3 and Year 4	W1: Ask relevant questions. W2: Set up simple, practical enquiries and comparative and fair tests. W3: Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. W4: Gather, record, classify and present data in a variety of ways to help in answering questions. W5: Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. W6: Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. W7: Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. W8: Identify differences, similarities or changes related to simple, scientific ideas and processes. W9: Use straightforward, scientific evidence to answer questions or to support their findings.					
	Investigation, enquiry, what to change, what we used, what we did, what we found out Investigation, enquiry, prediction, variable, dependent variable, independent variable, constant, patterns, equipment, apparatus, method, results, conclusion					
	Autumn		Spring		Summer	
Topi	Would you rather be an Athenian or a Spartan?	What have we learnt from the Ancient Egyptians?	What makes the Earth angry?	What did the Romans ever do for us?	Do we have green fingers?	What’s the perfect picnic?
Hierarchies	States of Matter C5: Compare and group materials together, according to whether they are solids, liquids or gases. C6: Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics. C7: Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Sound and Hearing P12: Identify how sounds are made, associating some of them with something vibrating. P13: Recognise that vibrations from sounds travel through a medium to the ear.	<u>Rocks and Soils and Understand Evolution and Inheritance</u> C1: Compare and group together different kinds of rocks on the basis of their simple, physical properties. C2: Relate the simple physical properties of some rocks to their formation (igneous or sedimentary). C3: Describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. C4: Recognise that soils are made from rocks and organic matter. B14: Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	Investigating movements and forces P1: Compare how things move on different surfaces. P2: Notice that some forces need contact between two objects, but magnetic forces can act at a distance. P3: Observe how magnets attract or repel each other and attract some materials and not others. P4: 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. P5: Describe magnets as having two poles. P6: Predict whether two magnets will attract or repel each other, depending on which poles are facing.	Understanding plants B1: Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. B2: 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. B3: Investigate the way in which water is transported within plants. B4: Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	No science this term
Resource	Bottles with lids, sponges, containers of water, electronic scales, bottles of water, balloons, cooking equipment, milk, white and dark chocolate, warm water, timers, foil trays, evaporation,	Range of instruments to demonstrate i.e. different sized recorder, glockenspiel notes, tuning forks of differing sizes, bowls of water,	Pipettes, beakers, stop watches, graded sieves, range of rocks, fossil samples, plasticine, petroleum jelly/Vaseline, plaster of Paris, chocolate, tweezers, crisps, cocktail sticks,	Force meters, picture cards to identify forces, arrows,	Dried beans, cotton wool, water, clear pots/jars, celery, food dye, plastic cups/beakers, paper towels, life-cycle of plant diagrams/models, flowers to dissect, magnifying glasses, tweezers	
Vocabula	Solid, liquid, gas, temperature, heating, freezing point, boiling point, particles, evaporation, condensation, thermometer, thermal insulation	Volume, vibration, sound wave, loud, soft, high pitch, low pitch, tone, speaker, (amplitude, frequency)	Sandstone, limestone, granite, marble, pumice, slate, crystals, properties, permeable / impermeable, hardness, sedimentary, igneous, metamorphic, fossils, soil, organic matter, humus	Force, push, pull, contact, magnetic, attract, repel, poles (north / south) friction, resistance	Air, light, water, soil, nutrients, reproduction, seed formation, dispersal, germination, pollination, transportation, species, location (photosynthesis)	
Lesson 1	Year 3: To group materials together according to whether they are solids or liquids. Year 4: To compare and group materials together according to whether they are solids or liquids. Activities: Challenge your class to define what solids and a liquids are and sort materials into groups based on their state. Children will discuss the different items that may not seem to fit and look closely at how they’re made up including pourable solids such as rice or sand. Alternatively, explore and make observations of non-Newtonian fluids as you make slime together. Outcomes: Year 3: Children identify a solid and liquid • Children able to sort objects into solids and liquids Year 4: Children provide a definition of solid or liquid • Children able to sort objects into solids and	Year 3: To find out that sounds are made when objects and materials vibrate. Year 4: To understand that sounds are made when objects and materials vibrate. Activities: Children will learn about how sounds are created, then explore the way sounds are produced by a variety of instruments or resonant objects. Outcomes: Year 3: Children find out that sounds are made when objects or materials vibrate • Children begin to make careful observations • Children begin to draw conclusions about sounds from their observations? Year 4: Children know that sounds are made when objects or materials vibrate • Children make careful observations • Children draw	Year 3: To be able to identify naturally occurring rocks and explore their uses. Year 4: To be able to identify naturally occurring rocks and identify their uses. Activities: Children will learn where rocks come from, then consider differences between naturally occurring rocks and man-made objects which are similar to rocks. They will then identify, describe and/or sort rocks and man-made objects. Outcomes: Year 3: Children know that rocks are used for a variety of purposes • Children identify some common rocks Year 4: Children know that rocks are used for a variety of purposes • Children identify some common rocks • Children identify rocks that are naturally occurring and those that are man-made	Year 3: To explore what forces are Year 4: To explore what forces are and notice that some forces need contact between two objects. Activities: Children will learn and describe what a force is. They will identify pushing and pulling actions in photographs, distinguishing between the two and describing which direction the forces are acting in. Outcomes: Year 3: Children know that some forces need contact between two objects • Children identify pushes and pulls Year 4: • Children explain what a force is • Children know that some forces need contact between two objects • Children identify pushes and pulls and explain the forces in action	Year 3: To identify and describe the functions of the roots of flowering plants. Year 4: To identify and describe the functions of the roots of flowering plants. Activities: Children will recap the main features of flowering plants, then learn about how roots grow, and what their functions are. They will then plan an experiment where they will grow beans, measuring root growth. Outcomes: Year 3: Children name the main parts of flowering plants • Children explain the function of roots • Children record findings Year 4: Children name the main parts of flowering plants • Children explain the function of roots • Children record findings and draw conclusions	Year 3: Year 4: Activities: Outcomes: Year 3: Year 4:

	liquids • Children explain why they have placed an object into either group	conclusions about sounds from their observations				
Lesson 2	<p>Year 3: To identify and explore the properties of gases.</p> <p>Year 4: To identify and explore the properties of gases.</p> <p>Activities: Take a look at the third state that a material can be in and explore if gases have mass. Look at the different ways that gases are used in everyday life and how their different properties make them useful for different purposes.</p> <p>Outcomes:</p> <p>Year 3: • Children name some of the properties of gases • Children able to define what a gas is•</p> <p>Year 4: • Children name some of the properties of gases • Children able to write a scientific definition of a gas • Children use their scientific knowledge to draw conclusions about their experiment’s results</p>	<p>Year 3: To investigate sounds</p> <p>Year 4: To investigate whether sounds can travel through different materials.</p> <p>Activities: Children will learn about how sounds travel through different materials. They will give reasons why they think some materials will transmit sound better/ worse than others, then investigate.</p> <p>Outcomes:</p> <p>Year 3:Children know that vibrations from sound sources travel through different materials • Children know that some materials allow sound to pass through them more easily than others</p> <p>Year 4: Children know that vibrations from sound sources travel through different materials to the ear • Children know sound can travel through solids, liquids and gases • Children know that some materials allow sound to pass through them more easily than others</p>	<p>Year 3: To be able to group rocks according to their characteristics.</p> <p>Year 4: To be able to group rocks according to their characteristics and describe using scientific vocabulary</p> <p>Activities: Children will consider ways in which rocks can be sorted according to different criteria. They may then either sort given rock samples, or study and sort pictures of rocks according to various criteria.</p> <p>Outcomes:</p> <p>Year 3: Children suggest ways of grouping rocks according to their characteristics • Children observe and compare rocks, and put them into different categories • Children justify their choices and explain their decisions</p> <p>Year 4: Children suggest ways of grouping rocks according to their characteristics • Children observe and compare rocks, and put them into different categories describing them using scientific vocabulary • Children justify their choices and explain their decisions</p>	<p>Year 3: To compare how things move on different surfaces.</p> <p>Year 4: To compare how things move on different surfaces.</p> <p>Activities:</p> <p>Outcomes: Children will find out what a force meter is and recognise that forces are measured in newtons. They will practise reading the scales on force meters before carrying out an investigation to measure whether the same objects needs the same amount of force to be pulled along different surfaces.</p> <p>Year 3: Children know that forces can be measured in newtons using a force meter • Children set up and carry out an investigation to explore how objects move on different surfaces • Children record observations</p> <p>Year 4: Children know that forces can be measured in newtons using a force meter • Children set up and carry out an investigation to explore how objects move on different surfaces • Children draw conclusions from their observations</p>	<p>Year 3: To investigate the way in which water is transported within plants.</p> <p>Year 4: To investigate the way in which water is transported within plants.</p> <p>Activities: Children will learn how water, absorbed by the roots is distributed around the plant via the stem. They will then conduct experiments where the capillary action in plant stems can be observed.</p> <p>Outcomes:</p> <p>Year 3: Children explain where plants get their water from • Children name the parts of the plant that transport water • Children plan and carry out simple investigations • Children draw simple conclusions</p> <p>Year 4: Children explain where plants get their water from • Children name the parts of the plant that transport water • Children plan and carry out simple investigations • Children draw simple conclusions</p>	<p>Year 3:</p> <p>Year 4:</p> <p>Activities:</p> <p>Outcomes:</p> <p>Year 3:</p> <p>Year 4:</p>
Lesson 3	<p>Year 3: To observe that materials change state when they are heated or cooled.</p> <p>Year 4: To observe that materials change state when they are heated or cooled.</p> <p>Activities: In this lesson the children will take a closer look at the particles in solids, liquids and gases and how they behave in these states. They will then use this knowledge to describe what happens when solids and liquids freeze and melt.</p> <p>Outcomes:</p> <p>Year 3: Children describe the difference between solids, liquids and gases • Children describe what melting is • Children describe what freezing is</p> <p>Year 4: Children describe the difference between the particles in solids, liquids and gases • Children describe what melting is • Children describe what freezing is</p>	<p>Year 3:</p> <p>Year 4: To explore the relationship between distance and volume.</p> <p>Activities:</p> <p>Outcomes: Children will explore ways in which sounds change as you move further away from its source. They will suggest reasons for their findings.</p> <p>Year 3: Children know that sounds get fainter as the distance from the sound source increases • Children explore what happens to sound as it gets further away • Children describe what they have found out</p> <p>Year 4: • Children know that sounds get fainter as the distance from the sound source increases • Children carry out an investigation to explore what happens to sound as it gets further away • Can children draw conclusions and describe what they have found out</p>	<p>Year 3:To be able to plan, carry out and evaluate experiments to compare rocks.</p> <p>Year 4:To be able to plan, carry out and evaluate experiments to compare rocks.</p> <p>Activities: Children will start to learn about erosion. They will also consider how different rocks may be tested to determine how quickly they erode and whether they are permeable. Following this, children will conduct practical erosion/permeability investigations.</p> <p>Outcomes:</p> <p>Year 3: Children know what the terms ‘erosion’ and ‘permeable’ mean • Children plan and carry out an experiment to compare rocks based on certain characteristics</p> <p>Year 4: Children know what the terms ‘erosion’ and ‘permeable’ mean • Children plan and carry out an experiment to compare rocks based on certain characteristics • Children evaluate their results and draw conclusions</p>	<p>Year 3: To explore how magnetic forces work.</p> <p>Year 4: To explore how magnetic forces work.</p> <p>Activities: Children will learn that some forces do not need contact between objects, including gravity and magnetism. They will then find out what magnets are and how they work before testing how magnets behave when they are put together.</p> <p>Outcomes:</p> <p>Year 3: Children know that there are forces between magnets and that don’t need contact between two objects • Children make generalisations about what happens when magnets are put together</p> <p>Year 4: Children know that there are forces between magnets and that don’t need contact between two objects • Children record observations of magnets • Children make generalisations about what happens when magnets are put together</p>	<p>Year 3: To identify and describe the functions of leaves in flowering plants.</p> <p>Year 4: To identify and describe the functions of leaves in flowering plants.</p> <p>Activities: Children will start to learn how plants make their own food using air and sunlight. They will then either describe parts of this process in their own words, or plan and conduct an experiment to show the importance of light for plant growth.</p> <p>Outcomes:</p> <p>Year 3: Children say what plants need to produce their own food • Children explain the function of leaves in flowering plants • Children start to explain some stages in the life cycle of flowering plants</p> <p>Year 4: • Children say what plants need to produce their own food • Children explain the function of leaves in flowering plants • Children explain some stages in the life cycle of flowering plants</p>	<p>Year 3:</p> <p>Year 4:</p> <p>Activities:</p> <p>Outcomes:</p> <p>Year 3:</p> <p>Year 4:</p>
Lesson 4	<p>Year 3: To research the temperature in degrees Celsius (°C) at which materials change state</p> <p>Year 4: To research the temperature in degrees Celsius (°C) at which materials change state</p> <p>Activities: This lesson challenges your class to research the melting points of different materials. They can use the internet to find the melting points of materials such as gallium, olive oil and gold. Alternatively, have your class design and reflect on an investigation about the melting points of different chocolate.</p> <p>Outcomes:</p> <p>Year 3:Children understand that different materials have different freezing/melting points • With support children use their research skills to</p>	<p>Year 3: To investigate which materials stop sound</p> <p>Year 4: To find out that some materials are effective in preventing vibrations from sound sources reaching the ear.</p> <p>Activities: Children will learn about why it is sometimes necessary to prevent sounds from travelling, then investigate the soundproofing effectiveness of a range of materials.</p> <p>Outcomes:</p> <p>Year 3: Children name some of the reasons why preventing sound to travel is sometimes important • Children carry out a test to measure how well different materials muffle sound •</p>	<p>Year 3: To identify rocks that are used for particular purposes.</p> <p>Year 4: To identify rocks and explain how their properties make them used for particular purposes.</p> <p>Activities: Children will consider what sources may help them find out about a rock’s uses, then carry out research to help them describe the characteristics of rocks and their uses.</p> <p>Outcomes:</p> <p>Year 3: Children use a variety of sources to find out information about rocks and their uses • Children organise the information they have found out • Children present the information they have found out</p>	<p>Year 3: To be able to identify magnetic materials.</p> <p>Year 4: To be able to identify magnetic materials.</p> <p>Activities: Children will recap how magnets behave when they are put together before testing a variety of objects to see if they are magnetic. Children will make predictions based on their prior knowledge then carry out an investigation to check if their predictions were correct.</p> <p>Outcomes:</p> <p>Year 3: Children test predictions about whether materials are magnetic or not • Children make observations • Children group objects on the basis of whether or not they are magnetic</p> <p>Year 4: Children make and test predictions about whether materials are magnetic or not • Children</p>	<p>Year 3: To explore the part that flowers play in the life cycle of flowering plants</p> <p>Year 4: To explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>Activities: Children will start to identify the parts of a flower, and how pollination occurs. They will then continue to identify and label the parts of a flower by drawing diagrams or dissecting flowers.</p> <p>Outcomes:</p> <p>Year 3: Children name the main parts of flowers • Children are able to describe one of the ways in which flowering plants reproduce • Children</p>	<p>Year 3:</p> <p>Year 4:</p> <p>Activities:</p> <p>Outcomes:</p> <p>Year 3:</p> <p>Year 4:</p>

	find the melting points of less common materials • Children evaluate an experiment’s fairness Year 4: Children understand that different materials have different freezing/melting points • Children use their research skills to find the melting points of less common materials • Children evaluate an experiment’s fairness and suggest improvements	Children draw conclusions about which materials muffle sound the best Year 4: Children name some of the reasons why preventing sound to travel is sometimes important • Children plan a test to measure how well different materials muffle sound • Children draw conclusions about which materials muffle sound the best	Year 4: Children use a variety of sources to find out information about rocks and their uses and why they are suited to their purpose • Children organise the information they have found out • Children present the information they have found out clearly	make careful observations • Children group objects on the basis of whether or not they are magnetic	know how and where seeds are formed in flowering plants Year 4: Children name the main parts of flowers • Children describe the functions of the main parts of flowers • Children are able to describe one of the ways in which flowering plants reproduce • Children know how and where seeds are formed in flowering plants	
Lesson 5	Year 3: To understand the process of evaporation. Year 4: To understand the process of evaporation. Activities: In this lesson the children will be asked to focus on the process of a liquid turning into a gas. They will think about the everyday examples of evaporation including puddles ‘disappearing’ throughout the day as well as the cooling effects of sweat on our skin. They will discuss the differences between evaporating and boiling as well as highlighting the boiling point of water. They are challenged to conduct an investigation into the rates of evaporation and how heat and air can affect them. Outcomes: Year 3: Children describe the process of evaporation • Children give an everyday example of water evaporating Year 4: Children describe the process of evaporation • Children give an everyday example of water evaporating • Children describe a way to increase the rate of evaporation	Year 3: To investigate how sounds can be different pitches and volumes. Year 4: To investigate how sounds can be different pitches and volumes. Activities: Children will learn about pitch and volume, then investigate ways in which they may be altered by a variety of instruments or resonant objects. Outcomes: Year 3: • Children know that the term ‘pitch’ describes how high or low a sound is • Children recognise changes in pitch and identify high and low notes • Children investigate different instruments and make generalisations about pitch Year 4: • Children know that the term ‘pitch’ describes how high or low a sound is • Children recognise changes in pitch and identify high and low notes • Children investigate different instruments and make generalisations about pitch	Year 3: To explore soil and how it is formed. Year 4: To explore soil and how it is formed. Activities: Children will learn about soil: how it is formed and its uses. They will also study different types of soil. Following this, children will study and describe a variety of soil samples. Outcomes: Year 3: • Children know that soil is made up of rocks and decaying organic matter • Children know that there are different types of soil Year 4: • Children know that soil is made up of rocks and decaying organic matter • Children know that there are different types of soil • Children know that there are different layers of soil	Year 3: To investigate uses for magnets. Year 4: To investigate uses for magnets. Activities: Children will recap different magnetic materials and make generalisations about which materials are not magnetic. They will then find out about a variety of uses for magnets, including medical equipment, credit cards and recycling. There is also the chance to carry out their own research to find out about different uses for magnets. Outcomes: Year 3: Children name some uses for magnets • Children use a variety of sources to find out about the different uses of magnets • Children present the information they have found Year 4: Children name some uses for magnets • Children use a variety of sources to find out about the different uses of magnets • Children present the information they have found in an appropriate way	Year 3: To explore some of the ways in which flowering plants disperse their seeds. Year 4: To explore some of the ways in which flowering plants disperse their seeds. Activities: Children will learn how the ovaries of flowering plants grow to form seeds, and how they may be dispersed in a variety of ways. They will then either continue to study in-depth some ways in which seeds are dispersed, or identify seeds found outside. Outcomes: Year 3: Children explain why flowering plants need to disperse their seeds • Children describe some ways in which seeds are dispersed Year 4: Children explain why flowering plants need to disperse their seeds • Children describe some ways in which seeds are dispersed • Children identify how seeds are dispersed based on their appearance	
Lesson 6	Year 3: To understand the process of condensation Year 4: To understand the process of condensation Activities: In this lesson the children will look at the opposite process to evaporation: condensation. They will think about what causes water to condense and look at some examples of this. They are then challenged to recreate a situation where they can see water condensing, including its use in a solar still to remove the salt from sea water. Outcomes: Year 3: • Children name each of the ways a material can change state •Children able to describe condensation and when it happens • Children cut/stick a diagram to help them explain condensation Year 4: • Children name each of the ways a material can change state •Children able to describe condensation and when it happens • Children create a diagram to help them explain condensation	Year 3: To find out how the length of a string affects its pitch. Year 4: To find out how the length, thickness and tightness of a string affects its pitch. Activities: Children will consider how the pitch of notes produced by stringed instruments is altered, then investigate further by experimenting with instruments or by making instruments. Outcomes: Year 3: Children know that the pitch of a stringed instrument depends on the length of the string • Children suggest ways of testing • Children draw conclusions from their observations Year 4: Children know that the pitch of a stringed instrument depends on the length, thickness and tightness of the string • Children suggest ways of testing what happens to the pitch of a string when you alter the length, tightness and thickness • Children draw conclusions from their observations	Year 3: To explore what fossils are Year 4: To explore what fossils are and how they are formed. Activities: Outcomes: Children will learn about how fossils are formed, then either describe this process in their own words or conduct a practical, ‘fossil-making’ activity. Year 3: • Children know that rocks move in a continuous cycle • Do children know what a fossil is Year 4: • Children know that rocks move in a continuous cycle • Do children know what a fossil is • Children explain how fossils are formed		Year 3: To understand the structure of seeds Year 4: To understand the structure of seeds and their importance as a food source. Activities: Children will learn about the structure of seeds and how plants grow from them. They will then either taste and compare seeds, or make seed cake bird feeders. Outcomes: Year 3: Children name the parts of a seed • Children identify the parts of a seed • Children know why seeds are an important food source for animals Year 4: Children name the parts of a seed and describe their functions • Children identify the parts of a seed • Children know why seeds are an important food source for animals	
	Year 3: To identify the part played by evaporation and condensation in the water cycle. Year 4: To identify the part played by evaporation and condensation in the water cycle. Activities: This final lesson draws upon the children’s learning of evaporation and condensation to describe the water cycle. They will look at four simplified steps of the water cycle and how these processes play a part. Outcomes:	Year 3: To find out how sounds can be made by air vibrating Year 4: To find out how sounds can be made by air vibrating and how to change the pitch of notes produced by vibrating air. Activities: Children will learn how sounds can be made by air vibrating, then explore ways in which the pitch of these sounds can be altered. Outcomes: Year 3: • Children know that sounds can be made by air vibrating • Children suggest ways to change the pitch of a sound made by air •	Year 3: To be able to identify fossilised remains. Year 4: Activities: Children will study images of fossilised remains and discuss what can be learned about the animal by doing this. They may then either conduct research to find out about given images of fossils, or do a practical, ‘fossil excavation’ activity. Outcomes: Year 3: Children describe how fossils are formed • Children identify a variety of common fossils • Children know where fossils are more likely to be found			

	Year 3: • Children know what the water cycle is • Children name the different stages of the water cycle Year 4: • Children know what the water cycle is • Children name the different stages of the water cycle • Children know that evaporation and condensation are processes that can be reversed	Year 4: • Children know that sounds can be made by air vibrating • Children suggest ways to change the pitch of a sound made by air • Children describe how to change the length of the air column vibrating to change pitch	Year 4: Children describe how fossils are formed • Children identify a variety of common fossils • Children know where fossils are more likely to be found and why			
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--

Assessment Criteria

	Working Scientifically	States of Matter	Sound and Hearing	Rocks and Soils	Investigating forces and magnets	Understanding Plants	
Year 3	ask simple 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 • 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 • report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • use results to draw simple conclusions,	I can • compare and group materials together, according to whether they are solids, liquids or gases. • observe that some materials change state when they are heated or cooled, • identify the part played by evaporation and condensation in the water cycle	I can • identify how sounds are made, associating some of them with something vibrating. • recognise that vibrations from sounds travel through a medium to the ear.	I can • compare and group together different kinds of rocks on the basis of their simple, physical properties. •relate the simple physical properties of some rocks to their formation (igneous or sedimentary). •describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. •recognise that soils are made from rocks and organic matter. •recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	I can • 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. • describe magnets as having two poles. • predict whether two magnets will attract or repel each other, depending on which poles are facing.	I can •identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. •explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) •Investigate the way in which water is transported within plants. •explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	
Year 4	make predictions for new values, suggest improvements and raise further questions • identify differences, similarities or changes related to simple scientific ideas and processes • use straight forward scientific evidence to answer questions or to support their findings	I can • compare and group materials together, according to whether they are solids, liquids or gases. • observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics. • identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	I can • identify how sounds are made, associating some of them with something vibrating. • recognise that vibrations from sounds travel through a medium to the ear.	I can • compare and group together different kinds of rocks on the basis of their simple, physical properties. •relate the simple physical properties of some rocks to their formation (igneous or sedimentary). •describe in simple terms how fossils are formed when things that have lived are trapped within sedimentary rock. •recognise that soils are made from rocks and organic matter. •recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.	I can • 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. • describe magnets as having two poles. • predict whether two magnets will attract or repel each other, depending on which poles are facing.	I can •identify and describe the functions of different parts of flowering plants: roots, stem, 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 role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	