

Curriculum Progression for Science

EYFS links to NC Science			
Science			
Development matters links	Early Learning Goals	How this is achieved in EYFS	
		Over their time in Pre - School	Reception
3 /4 year olds: <u>Communication & Language (CL) links:</u> - Understand ‘why’ questions, like: “Why do you think the caterpillar got so fat?” <u>Physical Development (PD):</u> - Be increasingly independent in meeting their own care needs, e.g. brushing teeth, using the toilet, washing and drying their hands thoroughly. - Make healthy choices about food, drink, activity and toothbrushing. <u>Mathematics (M):</u> - Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’ <u>Understanding of the world (UW)</u> - Use all their senses in hands-on exploration of natural materials. - Explore collections of materials with similar and/or different properties. - Talk about what they see, using a wide vocabulary.	(End of Reception Assessment point) <u>Communication & Language links:</u> - Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate. <u>Personal Social and Emotional Development:</u> - Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. <u>UW: The Natural World</u> - Explore the natural world around them, making observations and drawing pictures of animals and plants. - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.	<u>Autumn Term:</u> Marvellous Me – - Learning about their bodies and finding features for themselves through stories and rhymes. (heads shoulders knees and toes, eyes, ears, nose and mouth) - Learning about their senses and what they do. Link to stories and what they hear, see and feel. - Explore different textures of things in their environment outdoor and indoor. - Make connections between features of their families and those of others and they talk about who they live with and people who are special to them. - Learn about ways to keep their bodies healthy and learn about oral hygiene and why it is so important to keep our teeth healthy. - Focus on building more independence in how children manage their own personal hygiene (washing hands, going to the toilet, eating) Celebrations, Stories and Rhyme Time– - Begin to look for changes in the season and notice what happens in the environment in Autumn / winter. - Exploring shadows through dark and light. <u>Spring Term:</u> Amazing Animals – - Explore Winter – exploring signs of winter in the environment and using their senses to explore the cold and ice/frost.	<u>Autumn Term:</u> All about me – - Learning about their bodies and naming body parts (link to story Funny Bones – hip, thigh, elbow, head, neck, legs, arms, hand, feet). - Discussing the changes that have happened since they were born. Looking at how they have grown and changes over time. Comparing being a baby with what they look like and can do now. - Discuss how they can keep their bodies clean and healthy. Looking at hygiene and germs (washing hands etc). - Oral hygiene and the importance of brushing their teeth, foods that impact our teeth (sugar) and role of a dentist. - Harvest time – discussing what happens at harvest and the changes. - Linked to Literacy – Little Red Hen and learning about how to make bread. Observing the changes in materials when bread is made. A Magical Time / Celebrations – - Exploring different animal habitats – owls and other woodland animals. - Learning about features of different animals, owls – learning physical features and vocabulary. - Learning about nocturnal animals in woodlands and local environment – focus on owls and hedgehogs with awareness of other woodland creatures linked to Percy the Park Keeper stories. - Explore ways they can show care and concern for the animals in their environment – link to winter and how to care for animals. (bird feeders)

• Explore how things work. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things. • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. <u>Reception</u> <u>CL links:</u> • Use talk to help work out problems and organise thinking and activities explain how things work and why they might happen. • Learn new vocabulary <u>PD:</u> • Know and talk about the different factors that support their overall health and wellbeing: regular physical activity, healthy eating, toothbrushing, sensible amounts of 'screen time', having a good sleep routine, being a safe pedestrian <u>UW</u>	• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	• Talk about the world around them and compare it to an environment around the world, linked to animals and stories (Handa's Surprise, Dear Zoo) • Learn about the different habitats of animals (compare habitats eg farm, jungle, safari) • Find out about other countries in the world and how others live (eg Handa's surprise). On the Move – • Explore how things work and how things move (toys with moving mechanisms, beebots, other toys and resources that they can make move- indoor and outdoor) • Learn about different vehicles and ways of travelling (by foot, car, plane, train, bus). • Explore different forces and talk about what they can feel eg using movement with cars, magnets and explore boats on water. • Begin to explore maps and handle maps in play. Explore how to identify key, familiar features on maps. <u>Summer Term:</u> Down in the Garden – • Learn about the life cycle of a bean. Children to plant a bean and observe the changes that occur over time. • Begin to learn about what plants need to grow, can they look after the plants in their own outdoor environment? Look at caring for plants and living things. • Explore different • Learn about homes/habitats of creatures in our environment. Children will go on minibeast hunts and explore what they can see, feel and hear outside. • Learn about different creatures/minibeasts and features to identify them with a focus on how to care for them. • Learn about the life cycle of a frog and explore first-hand the changes that happen over time (frog spawn observation station if applicable). Dream Big: People Who Help Us (transitions) –	• Visit to the library and posting letters – local area. <u>Spring Term:</u> Our Wonderful World – • Wintery weather – exploring signs of winter in the environment. • Using all of their senses to explore ice outdoors and experiments involving water and ice. • Talk about what they see, hear and feel when they are outside using their senses. • Talk about the world around them linked to the seasonal changes in the environment (school / local) over time – compare Autumn and Winter. • Learn about Antarctica and Arctic environments and how they compare to their local environment. • Learn about the animals that live in these environments and how they survive in the extreme, cold environment. • Learning about features of the Penguin in Antarctica (huddle, physical features, life cycle, penguin chicks, waterproof) • Blubber experiment – exploring how animals survive in the cold environment. Once Upon a Story – • Learn about the life cycle of plants – daffodils and grow a cress head. Notice and observe the changes over time. • Learn about how to care for plants and flowers. (learn names to be able to recognise – daffodils, tulips and hyacinths) • Learn about and recognise signs of Spring - seasonal changes in the environment over time, compare Autumn, Winter and Spring and talk about the changes / differences. • Healthy eating and ways to keep their bodies healthy (food, exercise, sleep and activities). • Make a healthy vegetable soup or fruit kebab learning about different vegetables or fruits they have not tasted before. <u>Summer Term:</u> Minibeasts –
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• Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Recognise some environments that are different to the one in which they live. • Understand the effect of changing seasons on the natural world around them.		• Learn about the roles of others in our local environment and how they help them. • Look again at oral hygiene and how we can look after our teeth. Visit from a dentist.	• Learn about habitats and micro habitats of creatures in our environment. Children will go on minibeast hunts and explore what they can see, feel and hear outside. • Learn about different creatures/minibeasts and features to identify them with a focus on how to care for them. • Learn in detail about the features of living things – caterpillars/butterflies, snails, spiders (arachnids), ladybirds/beetles. • Learn the features that make a creature an insect (legs, body parts). • Grow a caterpillar – Observe the changes that happen over time to the caterpillars and life cycle of a caterpillar/butterfly. Amazing Adventures – • Find out about the moon and star – what is the moon and what is a star? • Explore what it is like in space from an astronaut. Learning about what type of foods they eat (explore freeze dried packs). • Learn about sea creatures and the habitats under the sea. • Learn about the problem with plastic pollution (link with blue planet and David Attenborough). • Children will think about ways they can make changes to their daily life to help with the problem of plastic in the oceans. • Exploring floating and sinking – testing materials and finding out about those that float. • Use information to make a boat that floats and test their outcomes. Children to evaluate what they would change to improve their designs if appropriate.

Vocabulary over the year in EYFS (this is not an exhaustive list)						
Pre - School	Autumn 1: Marvellous Me	Autumn 2: Celebrations, Stories and Rhyme Time	Spring 1: Amazing Animals	Spring 2: On the Move	Summer 1: Down in the Garden	Summer 2: Dream Big – People Who Help Us
	Body, head, shoulders, knees, arms, legs, feet, toes, eyes, ears, mouth, nose Teeth, clean, healthy, dentist	Shadows, shine, light, dark, ice, melting, heavy, light, lumpy, smooth, more than, faster, quietly, Autumn changes	Animals, homes, live, farm, zoo, safari, jungle, stripes, patterns, spots Winter, ice, melt	Push, pull, wheels, fly, drive, Heavy, light, lightest, bouncy, bumpy, whizzes, speed, scoops, lifts, floats, fast, slow, up and down, hurries, rushes, balance, hunt, wavey, deep, dark forest, snow storm	Grow, bean, shoot, change, stalk, leaves Sun, water, rain, soil, plant Life cycle, frog, tadpoles, change, grow Caterpillar, bugs, legs, wings,	Teeth, clean, healthy, dentist, brush, toothpaste
Reception	Autumn 1: Magnificent Me	Autumn 2: It's a Magical time / Celebrations	Spring 1: Our Wonderful World	Spring 2: Once Upon a Story	Summer 1: Minibeasts	Summer 2: Amazing Adventures
	Body, hip, thigh, elbow, head, neck, leg, arm, hand, feet, skeleton, Family, changes, baby, toddler, child, adult	Owl – sharp beak, sharp talons, wing, prey, predator Hedgehog, hoglet, nocturnal, hibernate, spines/spikes, protect, defend	Winter, ice, frost, melt, frozen Antarctica, Arctic, iceberg, ice, frozen, winds, blizzard Animals – Penguins, Emperor Penguin, life cycle, egg, chick, fledgling, feathers, waterproof, flippers, blubber, huddle Polar bear, Arctic fox, Arctic hare, Arctic owl, seal, orca, camouflage, fur,	Growing, plants, life cycle, roots, seed, bulbs, stem, petals, bud, flower Healthy eating – vegetables, fruits, diet, body, exercise, sleep, routine	Life cycle, egg, caterpillar, changes, metamorphosis, chrysalis, painted lady butterfly Spiders, arachnid, eight legs, two body parts, webs, spinnerets, eggs Snails, mucus, foot, shell, moist, radula (for eating), eyes, two long tentacles, two short tentacles Habitat, dark, damp, moist,	Space, moon, phases, stars, gases, sun Sea, ocean, sea creatures, rock pool Plastic pollution, recycle, reuse Float, sink, boats
	Seasons revisited over the year – Autumn, winter, spring, summer, changes, dead (leaves/flowers), decay, new life, shoots, blossom, flowers, trees, leaves					

Curriculumprogression KS1 – KS2

	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Working Scientifically Planning	Ask questions based on exploration of the world around them. Respond to prompts by making some suggestions about how to find an answer.	Ask simple questions and recognise that they can be answered in different ways. Use simple secondary sources to find answers. Talk about similarities and differences.	Respond to suggestions of how to answer questions about the world around them and ask effective and relevant questions. Recognise when and how secondary sources should be used. Discuss the most appropriate type of scientific enquiry to use to answer questions. Recognise that questions can be answered in different ways	Raise own relevant questions and use different types of scientific enquiry to answer questions. Recognise when and how secondary sources should be used. Make decisions about the most appropriate type of scientific enquiry to answer questions. Recognise and identify the factors needed to make a test 'fair'. Identify the factors in a simple 'fair' test that we will measure (variables) and keep the same (control).	Explore ideas and raise a range of relevant questions. Recognise which secondary sources are most useful and begin to recognise the difference between fact and opinion. Select and plan the most appropriate type of scientific enquiry for answering a scientific question. Decide which variables to measure change and keep the same. Demonstrate how to change one factor (variable) whilst keeping others the same (control). Identify and use an appropriate unit to measure variables effectively.	Explore ideas and raise a range of different kinds of relevant questions based on accurate scientific principles. Recognise and use the secondary sources that are most useful separating opinion from fact. Plan different types of enquiries to answer questions and put measures in place to ensure accuracy and reliability. Decide which variables to measure change and keep the same. Select the most suitable variables to be investigated. Identify and use an appropriate unit to measure variables effectively. Recognise some situations in which a fair test cannot be carried out- identify some variables that cannot be controlled or explain.

Working Scientifically Observation & Recording	Respond to prompts by making some suggestions about how to make an observation. Use senses and simple equipment to make observations, talking about what is happening and recording observations using words and/or pictures. Begin to record data in simple templates. Begin to identify and classify data and information.	Undertake a simple test, following instructions given. Use senses and simple equipment to make observations, talking about what is happening and recording using words. Take accurate measurements using simple equipment, e.g. cm and scales with one interval. Identify and classify data and information based on criteria. Record data using pictograms, tally charts, block diagrams and simple tables.	Set up simple practical enquiries. Begin to make decisions about what to observe and the length of time to observe. Read simple scales and take accurate measurements using standard units, e.g. Thermometers, beakers & data loggers. Talk about criteria for grouping, sorting and classifying, use simple keys. Record data using bar charts and tables.	Set up simple practical enquires, comparative and fair tests. Make decisions about what to observe, how long to observe for, and the type of equipment needed. Make systematic and accurate observations and measurements using a range of measuring equipment appropriately including thermometers, data loggers etc. Gather, record, classify and present data in a variety of ways to help answer questions. Use and construct increasingly complex tables, line graphs and keys to record findings.	Recognise when and how to set up comparative and fair tests and begin to explain which variables need to be controlled and why. Make decisions about what to observe, what measurements to use and how long to measure them for. Choose appropriate equipment to make measurements, using standard units of measure accurately and with precision, taking repeat reading when appropriate. Record data and results using scientific diagrams and labels, classification keys, tables, and bar and line graphs.	Recognise when and how to set up comparative and fair tests and clearly explain which variables need to be controlled and why. Make independent and well-founded decisions about what to observe, what measurements to use and how long to measure them for. Choose the most appropriate equipment (with a variety of intervals and units) to make measurements and explain how to use accurately and with precision, taking repeat readings when necessary. Choose the most efficient units of measurement and convert as and when appropriate. Gather, record, classify and present data in a wide range of ways. Use a wide range of methods to record data including line graphs, scientific diagrams, classification keys, scatter, bar and line graphs etc. Present comparative data in a range of formats
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						including, pie charts, line graphs and scatter grams etc. Label diagrams using appropriate scientific symbols, e.g. circuit diagrams in parallel.
Working Scientifically Conclusions	Begin to draw conclusions by comparing objects, materials and living things. Identify changes that have occurred when observing objects, living things or seasons. Begin to predict based on own experiences.	Talk about describe and sort simple similarities and differences, noting patterns and relationships. Record and communicate findings in a range of ways using simple scientific language. Talk about what has been found out and how it was discovered. Talk in simple scientific terms about what might happen and why? (prediction)	Begin to look for patterns and decide what data to collect to identify them. Talk about data collected from observations and measurements, using drawings, labelled diagrams, notes, simple tables and keys. Begin to draw and express some conclusions, by looking at changes, patterns, similarities and differences in data. Begin to identify new questions arising from data, make new predictions for new values within or beyond the data collected.	Look for patterns and decide on the range of data needed to identify them. Collect data from observations and measurements, using notes, simple tables and standard units, using drawings, labelled diagrams, keys, bar charts and tables. Identify changes, patterns, similarities and differences in data in order to draw conclusions. Suggest improvements and identify new questions arising from data, make new predictions for new values within or beyond the data collected. Report on findings from enquires including oral and written explanations.	Decide how to record data from a choice of familiar approaches. Use relevant scientific language to communicate findings and justify scientific ideas. Look for different relationships in data and begin to identify evidence that refutes or supports ideas. Use results to identify when further tests and observations might be needed. Make general statements such as: 'the hotter the water, the faster the sugar dissolves'	Decide in detail how to record data accurately from a choice of familiar approaches. Use relevant scientific language and illustrations to discuss, communicate and justify findings and scientific ideas. Look for a range of different relationships in data and begin to identify evidence that refutes or supports ideas- challenging the conclusions of others Identify when tests need to be repeated in order to attain reliable results. Use test results to make predictions and set up further comparative and fair tests. Make increasingly measured general statements such as: 'As

						the temperature increases the mass of the sugar which can be dissolved increases.' Use quantitative and qualitative data to support conclusions.
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Plants	Identify and name a range of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of plants, including trees (using scientific names: root, stem, leaves, petals, flower, trunk, branches, fruit, bulb and seed). Observe and discuss the growth of plants (including vegetables) they have planted.	Observe and describe how seeds and bulbs grow into mature plants. Find out about and describe what plants need to grow and stay healthy, including water, light and temperature and how this slightly differs from seeds and bulbs (who mostly do not need light to start germinating).	Identify and describe the functions of different parts of flowering plants including the: 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 these vary from plant to plant and the way in which water is transported in plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. Describe using accurate scientific vocabulary the features of a plant, such as the function of a stamen.		Describe using scientific vocabulary the key functions of a plant, including reproduction.	
Animals, including Humans	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Identify, name and describe a variety of common animals including fish, amphibians, reptiles, birds and mammals.	Identify animals, including humans, have offspring that will grow into adults, Find out about the basic needs of animals including humans and what they need to survive (air, food and water). Describe the importance for humans	Identify and describe simple features of human and other animal skeletons, and how muscles are used for support, protection and movement. Describe in simple terms the changes that take place as animals grow. Identify that animals including humans need the right types and amount of	Describe the simple functions of the human digestive system in humans, Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey Represent feeding	Describe the changes that take place as humans develop from birth to old age. Learn about the changes that take place during puberty. Draw a timeline to indicate stages in the growth and development of humans.	Identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood- explaining how and why our muscles use oxygen. Recognise and explain in detail the impact of diet, exercise, drugs and lifestyle on the functions of the body an

	Identify and name a variety of animals that are, carnivores, herbivores and omnivores. Describe the link between an animal's diet and their type of teeth. Describe and compare the structure of common animals such as birds, fish, reptiles, amphibians and mammals (including pets).	of exercise, a balanced diet and hygiene, including how to look after teeth.	nutrition and that they cannot make their own food, that they need nutrition from what they eat.	relationships as food chains and webs including primary, secondary and tertiary consumers. Compare the teeth of carnivores, herbivores and omnivores; suggesting reasons for their differences. Find out what can damage teeth and how we can look after them.		Describe the ways in which nutrients and water are transported within animals, including humans.
Living things and their habitats	Begin to discuss the habitats of some common animals including mammals, reptiles, fish, birds and amphibians.	Describe and compare features of living, dead and non-living things and recognise that living things grow and reproduce. Identify most living things live in habitats that they are suited to and describe how different habitats provide the basics needs for different animals and plants to survive. Identify and name a variety of plants and animals in their habitats, including micro-habitats.		Describe features of plants and animal and compare similarities and differences between sub-groups, recognising that all living things can be grouped in different ways. Explore and use classification keys to help to group, identify and name a variety of living things in the local and wider environment. Recognise that environments can change and that this can pose dangers to living things. Recognise that environments can change and that this can pose a threat to living things.	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals. Use scientific vocabulary to describe life processes, e.g. respiration in animals, pollination in flowering plants etc. Learn about the work of naturalists and/or animal behaviourists e.g. David Attenborough or Jane Goodall. Find out about different	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences including micro-organisms, animals and plants. Give reasons for classifying plants and animals based on specific characteristics. Learn about Carl Linnaeus, a pioneer of classification.

		Describe how animals obtain their food from plants and other animals, using simple food chains,			types of reproduction, including sexual and asexual reproduction in plants and sexual production in animals.	
Evolution and inheritance						Recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not be identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and adaptation may lead to evolution. Learn about the work of scientists such as Charles Darwin and Alfred Wallace and how they developed their ideas on evolution. Learn about palaeontologists such as Mary Anning to discover how fossils provide us with information Link adaptations to the

						changes in an organism's environment and know that adaptation leads to evolution.
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Earth and Space					Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon, relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Find out how ideas about the solar system have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus.	
Everyday Materials (including states of matter)	Distinguish between an object and the material from which it is made. Identify and name some everyday materials including wood, plastic, glass, metal, water, brick,	Identify and compare the suitability of a variety of everyday materials including wood, plastics, glass, metal, water and rock. Talk about what	Compare and group different kinds of rocks based on appearance and simple physical properties. Describe how fossils are formed when things that have lived were trapped	Compare and group materials according to their state of matter. Observe how some materials change state when heated or cooled and begin to research the temperature of materials in	Identify and give reasons why materials are used for a specific task or purpose. Compare and group everyday materials based on evidence from comparative and fair	

	paper, fabric and rock. Begin to discuss the best materials for making items e.g. umbrellas, house, discussing the essential physical properties the material needs. Use scientific language to describe the simple physical properties of a variety of everyday materials and compare and group based on their physical properties	common materials are used for, e.g. glass for windows and why this is best material to use. Investigate how shapes of solid materials can be changed by squashing, bending, twisting and stretching.	within rock. Recognise that soils are made from rocks and organic matter.	degrees Celsius. Identify a range of simple reversible and irreversible changes through heating and cooling. Develop a secure understanding of the water cycle and the important roles of evaporation and condensation, associating the rate of evaporation with the temperature,	tests, based on hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Demonstrate that dissolving, mixing and changes of state are reversible changes. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of vinegar (acid) on bicarbonate of soda. Describe in detail the properties of liquids, solids and gases.	
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Light & Sound			Recognise that light is needed to see things and that dark is the absence of light. Recognise that shadows are formed when light from a light source is blocked by a solid object. Notice that light is reflected from surfaces. Recognise that light from the sun is dangerous and that there are ways to protect the eyes. Find patterns in the way that the size of shadows change.	Explore how sounds are made, associating some of them with vibrations. Develop an understanding that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and the features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibration that produced it. Recognise sounds get fainter as the distance from the source sound increases. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produce it.		Recognise and explain how light appears to travel in straight lines. Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that casts them. Use knowledge of how light travels to explain the formation of shadows. Use the idea that light travels in straight lines to explain that objects can be seen because they give out or reflect light into the eye. Explain that things are seen because light travels from light sources to the eye or from light sources to objects and then to the eyes.
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Electricity				Explain how a circuit works and recognise that a switch opens and closes a circuit and how this will affect whether a lamp will light or not. Describe why a bulb won't light and identify the problem within the circuit. Construct and record a simple series circuit, and name its basic parts, including cells, wires, bulbs, switches and buzzers. Draw a simple series circuit. Identify common appliances that run on electricity. Recognise common conductors and insulators and associate metals with being good conductors. Identify some dangers associated		Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including brightness of bulbs, loudness of buzzers and the on/off position of switches. Explain scientifically what happens if you change the number of bulbs. Use recognised symbols when representing a simple circuit diagram. .Create a useful circuit e.g. burglar alarm, set of traffic light, a game.	
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				with electricity and discuss how to keep safe.			
Forces & Magnets			Compare how things move on different surfaces. Describe situations where friction is helpful and where it is not, Identify the effects of friction acting between moving surfaces. Describe magnets as having two poles Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials		Recognise that unsupported objects fall to Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect. Recognise that when an object is at rest the forces are balanced.		

			on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Predict whether two magnets will attract or repel each other depending on which poles are facing.		Recognise that weight is a force and is measured in Newtons. Use a Force meter accurately. Find out about how Galileo Galilei and Isaac Newton helped develop the theory of gravitation.		
Seasonal changes	Observe changes across the four seasons including weather and how day length varies.						
Rocks			Compare and group different kinds of rocks based on appearance and simple physical properties. Describe how fossils are formed when things that have lived were trapped within rock. Recognise that soils are made from rocks and organic matter.				