Constantine Primary School

Science Curriculum map

Colour key:
Animals, including humans
Everyday materials/Properties and changes of materials
Seasonal changes/ Forces and magnets/States of matter/Sound/Earth and space/Evolution and inheritance
Plants
Living things and their habitats
Rocks
Light
Electricity

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception As a class we complete the weather chart every morning. The children talk about the weather with EYFS staff as we provide learning inside and outside so talk about what to wear when outside if it's raining/cold or hot/sunny. Weather stories are read and songs sung. EYFS BBC schools radio programmes are completed throughout the year and linked to the weather and seasons.	Early Learning Goal: Understanding the World: **The Natural World** Children at the expected level of development will: - 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; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Early Learning Goal: Communication and Language **Listening, Attention and Understanding** Children at the expected level of development will: - Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; - Make comments about what they have heard and ask questions to clarify their understanding; - Hold conversation when engaged in back-and-forth exchanges with their teacher and peers. **Speaking** Children at the expected level of development will: - Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; - Offer explanations for why things might happen, making use of recently introduced vocabulary.				
	Knowledge **The children will know:** **Topics with a Science focus:** Homes and our local area, pets and vets, transport • Explore the natural world around them, making observations and drawing pictures of animals • Explore how things work • Use all their senses in hands-on exploration of natural materials • Explore collections of materials with similar and/or different properties **Communication & Language** Talk about what they see, using a wide vocabulary Listen attentively and respond to what they hear with relevant	**Knowledge** **The children will know:** **Topics with a Science focus:** Autumn, forests and woodlands • Explore the natural world around them, making observations and drawing pictures of animals and plants • Children to learn about the signs of Autumn and explore these in their local environment • Understand the effect of changing seasons on the natural world around them • Use all their senses in hands-on exploration of natural materials **Communication & Language** Talk about what they see, using a wide vocabulary	**Knowledge** **The children will know:** **Topics with a Science focus:** Dinosaurs, castles, space • Explore the natural world, making observations and drawing pictures of animals • Explore and talk about different forces they can feel • Use all their senses in hands-on exploration of natural materials • Explore collections of materials with similar and/or different properties • Talk about the differences between materials and changes they notice **Communication & Language**	**Knowledge** **The children will know:** **Topics with a Science focus:** Animls (ocean and safari), Africa, minibeasts, birds, bees and butterflies, lifecycles, flowers, environment (animals and habitats) • Explore the natural world around them, making observations and drawing pictures of animals • Understand the key features of the life cycle of an animal. • Explore the natural world around them, making observations and drawing pictures of plants • Plant seeds and care for growing plants • Understand the key features of the life cycle of a plant	**Knowledge** **The children will know:** **Topics with a Science focus:** Growing, environment (looking after environment), water • Explore the natural world around them, making observations and drawing pictures of plants • Plant seeds and care for growing plants • Understand the key features of the life cycle of a plant • Use all their senses in hands-on exploration of natural materials • Understand some important processes and changes in the natural world around them, including changes states of matter	**Knowledge** **The children will know:** **Topics with a Science focus:** Healthy me, my body, sports • Explore the natural world around them, making observations and drawing pictures of animals, including huamns • Children to learn about the signs of Summer and explore these in their local environment • Understand the effect of changing seasons on the natural world around them • Use all their senses in hands-on exploration of natural materials **Communication & Language** Talk about what they see, using a wide vocabulary

	questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary	Listen attentively and respond to what they hear with relevant questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary	Talk about what they see, using a wide vocabulary Listen attentively and respond to what they hear with relevant questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary	• Begin to understand the need to respect and care for the natural environment and all living things • 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. Children to compare and contrast Africa with the UK • Children to learn about the signs of Spring and explore these in their local environment • Understand the effect of changing seasons on the natural world around them • Use all their senses in hands-on exploration of natural materials **Communication & Language** Describe what they see, hear and feel whilst outside Talk about what they see, using a wide vocabulary Listen attentively and respond to what they hear with relevant questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary	**Communication & Language** Talk about what they see, using a wide vocabulary Listen attentively and respond to what they hear with relevant questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary	Listen attentively and respond to what they hear with relevant questions, comments and actions Make comments about what they have heard and ask questions to clarify their understanding Offer their own ideas, using recently introduced vocabulary Offer explanations for why things might happen, making use of recently introduced vocabulary

Year 1 Ch need to observe the seasonal changes and changes in day length across the year, in preparation for the Summer 1 science focus.	**What makes me marvellous?** **Knowledge** **The children will know:** What makes us a mammal? • How to classify themselves as a mammal • **How to identify, name, draw and label the basic parts of the human body** • How to identify the five senses and say which part of the body is associated with each sense	**What's in the toy box?** **Knowledge** **The children will know:** What materials are different objects made from? • **How to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock** • The difference between an object and the material from which it is made	**What makes our school grounds special?** **Knowledge** **The children will know:** What are the names of common plants and trees? • How to identify and name a variety of common wild and garden plants • **How to identify and describe the basic structure of a variety of common flowering plants** • How to identify different types of trees, including whether they are deciduous or evergreen trees	**Where do I live?** **Knowledge** **The children will know:** How can we describe and group animals? • **How to identify and name a variety of common animals (including fish, amphibians, reptiles, birds and mammals)** • What common animals eat and classify them as carnivores, herbivores and omnivores • The body covering (fur, skin, feathers) and significant body parts (fins, scales) of different animal groups (fish, amphibians, reptiles, birds and mammals, including pets) • Which animals are hot or cold-blooded	**What is the weather like today?** **Knowledge** **The children will know:** What differences do you notice about the seasons? • **The names of all four seasons** • Different types of weather • How to observe and describe weather associated with the seasons and observe changes across the four seasons • **How day length varies** (using vocabulary like longer and shorter, mid-summer and mid-winter)	**Why does Falmouth have a castle?** **Knowledge** **The children will know:** How can we describe and group different materials? • Recap – How to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock • Recap – The difference between an object and the material from which it is made • **How to describe the simple physical properties of a variety of everyday materials (hard/soft, stretchy/stiff, shiny/dull, waterproof/non-waterproof, opaque/see-through)** • **How to compare and group together a variety of everyday materials on the basis of their simple physical properties**
	Skills **Children will be able to:** • Ask simple **questions** and recognising that they can be answered in different ways • **Identify and classify** • **Use their observations** and ideas to suggest answers to questions	**Skills** **Children will be able to:** • Ask simple **questions** and recognise that they can be answered in different ways • **Observe** closely using different equipment • Perform simple **tests** • **Identify and classify** • **Use their observations** and ideas to suggest answers to questions	**Skills** **Children will be able to:** • Ask simple **questions** and recognise that they can be answered in different ways • **Observe** closely using different equipment • Perform simple **tests** • **Identify and classify** • **Use their observations** and ideas to suggest answers to questions	**Skills** **Children will be able to:** • Ask simple **questions** and recognising that they can be answered in different ways • **Identify and classify** • **Use their observations** and ideas to suggest answers to questions • Gather and **record** data to help in answering questions	**Skills** **Children will be able to:** • Ask simple **questions** and recognise that they can be answered in different ways • **Observe** closely using different equipment • **Use their observations** and ideas to suggest answers to questions • Gather and **record** data to help in answering questions	**Skills** **Children will be able to:** • Ask simple **questions** and recognise that they can be answered in different ways • Perform simple **tests** • **Use their observations** and ideas to suggest answers to questions

Year 2	**How would I survive on a desert island?** **Knowledge** **The children will know:** Why do we choose materials for certain jobs? • How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • How the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	**What made the fire of London great?** **Knowledge** **The children will know:** What do animals including humans need to survive? • **How to find out about and describe the basic needs of animals, including humans, for survival (water, food and air)** • The importance for humans of exercise, eating the right amounts of different types of food, and hygiene	**Why are Florence Nightingale and Rosa Parks remembered today?** **Knowledge** **The children will know:** **Check Jigsaw** • RHSE	**What makes Constantine special?** **Knowledge** **The children will know:** What are the basic needs of a plant? • How to observe and describe how seeds and bulbs grow into mature plants • **How plants need water, light and a suitable temperature to grow and stay healthy.**	**Why are rainforests unique?** **Knowledge** **The children will know:** Why do living things choose different habitats? • That most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • **How to identify and name a variety of plants and animals in their habitats, including micro-habitats** • How animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	**What was it like to be a tin miner?** **Knowledge** **The children will know:** How do we know if something has been alive? • **That animals, including humans, have offspring which grow into adults** • **The differences between things that are living, dead, and things that have never been alive**
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End of Key Stage 1 powerful knowledge	**Plants** • **How to identify and describe the basic structure of a variety of common flowering plants** • **How to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy**	**Animals, including humans** • **How to identify, name, draw and label the basic parts of the human body** • **A variety of common animals (including fish, amphibians, reptiles, birds and mammals)** • **How to find out about and describe the basic needs of animals, including humans, for survival (water, food and air)** • **That animals, including humans, have offspring which grow into adults**	**Living things and habitats** • **How to identify and name a variety of plants and animals in their habitats, including micro-habitats** • **The differences between things that are living, dead, and things that have never been alive**	**Everyday Materials** • **A variety of everyday materials, including wood, plastic, glass, metal, water, and rock** • **The simple physical properties of a variety of everyday materials (hard/soft, stretchy/stiff, shiny/dull, waterproof/non-waterproof, opaque/see-through)** • **How to compare and group together a variety of everyday materials on the basis of their simple physical properties**	**Seasonal Changes** • **The names of all four seasons** • **How day length varies**	
Year 3	**What was life like in the Stone Age?** **Knowledge** **The children will know:** What are the key differences between different types of rock? • How to compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • **That soils are made from rocks and organic matter** • **In simple terms how fossils are formed when things that have lived are trapped within rock**	**What is it like to live in Greece?** **Knowledge** **The children will know:** **Check Jigsaw** • RSE	**How did the ancient Greeks change the world?** **Knowledge** **The children will know:** How do different forces cause an effect? • **That some forces need contact between two objects, but magnetic forces can act at a distance** • How magnets attract or repel each other and attract some materials and not others • How to 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 • How to describe magnets as having two poles • Whether two magnets will attract or repel each other, depending on which poles are facing • **How things move on different surfaces**	**Why is fair trade important?** **Knowledge** **The children will know:** What types and amounts of nutrition do animals need? • That animals cannot make their own food and they get nutrition from what they eat and that this comes in different types (protein, fat, carbohydrates, vitamins and minerals) • **That animals, including humans, need the right types and amount of nutrition** • That humans and some other animals have skeletons and muscles for support, protection and movement	**How have holidays in Cornwall changed over time?** **Knowledge** **The children will know:** How does light allow us to see and how does it change what we see? • **That they need light in order to see things and that dark is the absence of light** • That light from the Sun can be dangerous and that there are ways to protect their eyes • That light is reflected from surfaces • **That shadows are formed when the light from a light source is blocked by an opaque object** • How to find patterns in the way that the size of shadows change	**Why are our coasts changing?** **Knowledge** **The children will know:** What do plants need to reproduce and grow? • **How to identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers** • **The part that flowers play in the life cycle of flowering plants**, including pollination, seed formation and seed dispersal • 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 • How to investigate the way in which water is transported within plants

	Skills **Children will be able to:** • Ask relevant **questions** and using different types of scientific enquiries to answer them • Use straightforward **scientific evidence** to answer questions to support their findings • Set up simple practical **enquiries,** comparative and **fair tests** • **Record** findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Gather, record, classify and present **data** in a variety of ways to help answering questions	**Skills**	**Skills** **Children will be able to:** • Ask relevant **questions** and use different types of scientific enquiries to answer them • Use straightforward **scientific evidence** to answer questions to support their findings • Set up simple practical **enquiries,** comparative and **fair tests** • **Identify** differences, similarities or changes related to simple scientific ideas and processes • **Use results** to draw simple conclusions, make predictions for new values, suggest improvement and raise further questions • **Record** findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Gather, record, classify and present **data** in a variety of ways to help answering questions	**Skills** **Children will be able to:** • Ask relevant **questions** and use different types of scientific enquiries to answer them • Use straightforward **scientific evidence** to answer questions to support their findings	**Skills** **Children will be able to:** • Ask relevant **questions** and use different types of scientific enquiries to answer them • Use straightforward **scientific evidence** to answer questions to support their findings • Set up simple practical **enquiries,** comparative and **fair tests** • **Identify** differences, similarities or changes related to simple scientific ideas and processes • **Use results** to draw simple conclusions, make predictions for new values, suggest improvement and raise further questions • **Record** findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Gather, record, classify and present **data** in a variety of ways to help answering questions • **Report** on findings from enquires, including oral and written explanatinos, displays or presentation of results and conclusions	**Skills** **Children will be able to:** • Ask relevant **questions** and use different types of scientific enquiries to answer them • Use straightforward **scientific evidence** to answer questions to support their findings • Set up simple practical **enquiries,** comparative and **fair tests** • **Use results** to draw simple conclusions, make predictions for new values, suggest improvement and raise further questions • **Record** findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables • Gather, record, classify and present **data** in a variety of ways to help answering questions • **Report** on findings from enquires, including oral and written explanatinos, displays or presentation of results and conclusions

Year 4	**Where in the world is Africa?** **Knowledge** **The children will know:** How do we classify living things? • That living things can be grouped in a variety of ways • How to explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • **That environments can change and that this can sometimes pose dangers to living things** • How to construct and interpret a variety of food chains, identifying producers, predators and prey	**What happened to the kingdom of Benin?** **Knowledge** **The children will know:** **Check Jigsaw** • RSE	**What makes our Earth angry?** **Knowledge** **The children will know:** What do you need to make a complete circuit? • **How to identify common appliances that run on electricity** • How to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • Whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • That a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • **Some common conductors and insulators, and associate metals with being good conductors**	**What have the Romans ever done for us?** **Knowledge** **The children will know:** How do we hear sounds? • **How sounds are made, associating some of them with something vibrating** • That vibrations from sounds travel through a medium to the ear • How to find patterns between the pitch of a sound and features of the object that produced it • How to find patterns between the volume of a sound and the strength of the vibrations that produced it • That sounds get fainter as the distance from the sound source increases	**Why are the Tudors remembered?** **Knowledge** **The children will know:** What are the functions of the different parts of the digestive system? • **The simple functions of the basic parts of the digestive system in humans** • The different types of teeth in humans and their simple functions	**How does the river get to the sea?** **Knowledge** **The children will know:** What are the states of matter and how can they change? • **How to compare and group materials together, according to whether they are solids, liquids or gases** • **That some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)** • The part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
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Year 5	**<u>Why is the planet melting?</u>** **Knowledge** **The children will know:** How can solids, liquids and gasses be separated? (May need changing or moving to Spring 1) Split across term as appropriate. • How to compare and group together everyday materials **on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets** • That some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • How to use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • How to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • **That dissolving, mixing and changes of state are reversible changes** • **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 acid on bicarbonate of soda**	**<u>What was it like to be a Victorian?</u>** **Knowledge** **The children will know:** How do life cycle processes effect different living things? • **The differences in the life cycles of a mammal, an amphibian, an insect and a bird** • The life process of reproduction in some plants and animals	**<u>Why did the world go to war?</u>** **Knowledge** **The children will know:** Split across year as appropriate, ensuring complete coverage as required. • How to compare and group together everyday materials **on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets** • That some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • How to use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • How to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • **That dissolving, mixing and changes of state are reversible changes** • **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 acid on bicarbonate of soda**	**<u>Why is London an important city?</u>** **Knowledge** **The children will know:** **Check Jigsaw** • The changes as humans develop to old age (RSE)	**<u>How do forces work?</u>** **Knowledge** **The children will know:** How do different forces effect objects? • **That unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object** • The effects of air resistance, water resistance and friction, that act between moving surfaces • That some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	**<u>Who won the space race?</u>** **Knowledge** **The children will know:** How do the Sun, the Earth and the moon move? • **The movement of the Earth, and other planets, relative to the Sun in the solar system** • **The movement of the Moon relative to the Earth** • **How to describe the Sun, Earth and Moon as approximately spherical bodies** • **How to use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky**

	Skills **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary • Take **measurements**, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where necessary • **Use test results** to make predictions to set up further comparative and fair tests • **Record** data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs	**Skills** **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary • Report and present findings from enquiries, including conclusions. In oral and written forms, such as displays and other presentations	**Skills** **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary • Take **measurements**, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where necessary • **Use test results** to make predictions to set up further comparative and fair tests • **Record** data and results of increasing complexity using scientific diagrams and lables, classification keys, tables, bar and line graphs	**Skills** **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary	**Skills** **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary • Take **measurements**, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where necessary • **Use test results** to make predictions to set up further comparative and fair tests • **Record** data and results of increasing complexity using scientific diagrams and lables, classification keys, tables, bar and line graphs • Report and present findings from enquiries, including conclusions. In oral and written forms, such as displays and other presentations	**Skills** **Children will be able to:** • Plan different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary • Report and present findings from enquiries, including conclusions. In oral and written forms, such as displays and other presentations
Year 6	**<u>What did the Egyptians teach us?</u>** **Knowledge** **The children will know:** What are the main functions of the human circulatory system? • The main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood • **The impact of diet, exercise, drugs and lifestyle on the way their bodies function** • The ways in which nutrients and water are transported within animals, including humans	**<u>Are rainforests important?</u>** **Knowledge** **The children will know:** How have living things adapted to their environments over the years? • **That living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago** • That living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents • How animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	**<u>What legacy did the Celts leave in Cornwall?</u>** **Knowledge** **The children will know:** How do we classify different living things? • How living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals • Reasons for classifying plants and animals based on specific characteristics	**<u>What powers Earth?</u>** **Knowledge** **The children will know:** How can you change the power of a circuit and what impact does this have on the components being used? • The brightness of a lamp or the volume of a buzzer is linked with the number and voltage of cells used in the circuit • **Reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches** • **Recognised symbols when representing a simple circuit in a diagram**	**<u>Were all Vikings vicious?</u>** **Knowledge** **The children will know:** **Check Jigsaw** • RSE	**<u>Can you find your way home?</u>** **Knowledge** **The children will know:** Why do we see things? • That light appears to travel in straight lines • **The idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye** • That we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • The idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

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End of Key Stage 2 powerful knowledge	**Plants** • **How to identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers** • **The part that flowers play in the life cycle of flowering plants**	**Animals including humans** • **That animals, including humans, need the right types and amount of nutrition** • **The simple functions of the basic parts of the digestive system in humans** • **The impact of diet, exercise, drugs and lifestyle on the way their bodies function**	**Living things and their habitats** • **That environments can change and that this can sometimes pose dangers to living things.** • **The differences in the life cycles of a mammal, an amphibian, an insect and a bird**	**Properties and Changes of Materials** • **How to compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets** • **That dissolving, mixing and changes of state are reversible changes** • **That some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes**	**Rocks** • **That soils are made from rocks and organic matter** • **In simple terms how fossils are formed when things that have lived are trapped within rock**	**Forces** • **That some forces need contact between two objects, but magnetic forces can act at a distance** • **How things move on different surfaces** • **That unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object** **Sound** • **How sounds are made, associating some of them with something vibrating** **Electricity** • **How to identify common appliances that run on electricity**	**Earth and Space** • **The movement of the Earth, and other planets, relative to the Sun in the solar system** • **The movement of the Moon relative to the Earth** • **How to describe the Sun, Earth and Moon as approximately spherical bodies** • **The idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky**	**Evolution and inheritance** • **That living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago**	**States of Matter** • **How to compare and group materials together, according to whether they are solids, liquids or gases** • **That some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)**

				associated with burning and the action of acid on bicarbonate of soda		• Some common conductors and insulators, and associate metals with being good conductors • How to compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches • How to use recognised symbols when representing a simple circuit in a diagram			