

# Wellington Primary School

## Science Progression Map 2020 - 2021

	Key Stage 1		Lower Key Stage 2	Upper Key Stage 2	
	Year 1	Year 2	Year 3	Year 5	Year 6
<b>KS1/LKS2 Plants</b>  <b>UKS2 Living things and their habitats</b>	<b>NC Objectives</b> *Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. *Identify and describe the basic structure of a variety of common flowering plants, including trees.	<b>NC Objectives</b> *Observe and describe how seeds and bulbs grow into mature plants. *Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	<b>NC Objectives</b> *Identify and describe the functions of different parts of flowering plants: 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 they vary from plant to plant. *Investigate the way in which water is transported within plants. *Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	<b>NC Objectives</b> *Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. *Describe the life process and reproduction in some plants and animals.	<b>NC Objectives</b> *Describe 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. *Give reasons for classifying plants and animals based on specific characteristics.
	Wk 1 – Local walk looking at plants and trees including measuring them. Wk 2 – Begin Bean plant investigation and plant seeds Wk 3 – Draw trees and plants in the local area. Wk 4 – Label parts of a plant Wk 5 – Revisit Bean investigation and monitor progress. Wk 6 – Compare beans grown in the light and dark and label sheet.	Wk 1 – Look and observe different plants scientifically. Name and classify common plants in the UK. Wk 2 – Plan investigation looking if plants can still grow without one of the main conditions. Water, air, soil, light, warmth or if they need everything. Wk 3 – Plant seeds and begin the first part of recording the planting and the growth on sheet. Wk 4 – Observe real fruit and vegetables and look the name, draw picture, size, colour, position of seeds, number of seeds and if they are edible. Wk 5 – Looking at how seeds travel and creating a helicopter seed to show dispersal. Wk 6 – See final growth of plant and if and how the different conditions have effected them.	Wk 1 – Plant dissection and labelling Wk 2 – Investigate a broad bean – explore one soaked in water. Differences. Plant own bean. Observation for Bean Diary. Wk 3 – What plants need to grow. Set up experiment with soil and sand – make predictions/Continue Bean diary Wk 4 – Looking at function of stem –practical using (celery, carnation, daisy)/prediction/begin investigation/ Continue Bean diary/Look at changes in investigation from last week Wk 5 – Observations from stem investigation last week /Continue Bean diary/ make observations from what plants need investigation – observational drawings and record conclusions. Wk 6 – Lifecycle of plant and pollination – sort pictures/create presentation for pollination. Wk 7 – Seed dispersal – cutting and sorting activity/write explanation of dispersal of apple seed Wk 8 – What does disperse mean? Complete mind map about how plants grow.	Wk 1 – Detailed diagram of labelled flower / plant & explain functions. Wk 2 – Explanation of pollination and fertilisation Wk 3 – Explanation of how seeds are dispersed. Wk 4 – Design a test that would show which conditions are necessary for germination to occur – investigation – revisit over time. Wk 5 – Look at how a range of living things give birth & how long they remain with parent until independent. Wk 6 – Produce fact file – how different animals learn to survive. Wk 7 – Diary entry of a meerkat – how it survives / protection / diet etc Wk 8 – advantages / disadvantages of being a pack / solitary animal – grid & debate Wk 9 – Produce life cycle of an animal of their choice (link to c/c ICT) Must include a selection across the class Of mammal / bird / amphibian / insect. Presentation to the class & short written explanations.	Wk 1 Recap work on mammals / reptiles etc (classification from Yr 4) Ch to understand how classification keys work – practical examples using children. Wk 2 – Create their own key to classify creatures using observable characteristics. Wk 3 – Create a key to classify cats (creatures with less differences) Extend to create key to classify dogs, or another species of choice. CH to research Wk 4 – Ch to classify creatures using the Linnean system. Ch to explore creatures in the same family / genus etc. Wk 5 – Identifying helpful / harmful microorganisms. Setting up investigation - mould Wk 6 – What does yeast need to grow investigation? (Balloons) Wk 7 – Revisiting mould investigation. Writing an effective conclusion. Produce hygiene leaflet.

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	Year 2	Year 4	Year 6
Living things and their habitats	<p><b>NC Objectives</b></p> <ul style="list-style-type: none"> <li>*Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>*Identify 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.</li> <li>*Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li> <li>*Describe 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.</li> </ul>	<p><b>NC Objectives</b></p> <ul style="list-style-type: none"> <li>*Recognise that living things can be grouped in a variety of ways.</li> <li>*Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>*Recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>	<p><b>NC Objectives</b></p> <ul style="list-style-type: none"> <li>*Describe 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.</li> <li>*Give reasons for classifying plants and animals based on specific characteristics.</li> </ul>
	<p>Wk 1 – Classifying and sorting animals by key characteristics</p> <p>Wk 2 – Creating a pet care leaflet from the perspective of a vet</p> <p>Wk 3 – observational drawing of an egg and labelling the different parts</p> <p>Wk 4 – Trip to Canon Hall Farm</p> <p>Wk 5 – Looking at the different animals and their habitats from the farm.</p> <p>Wk 6 – Orangutan information sheet how the animals differ from childhood to adulthood.</p> <p>Wk 1 – Observe what is dead, alive or never alive around the school grounds.</p> <p>Wk 2 – Caterpillar observation begins. Children create booklets to observe over a period of time.</p> <p>Wk 3 – Research and create a mini beast fact file.</p> <p>Wk 4 – Trip to Nell Bank to look at animals and mini beasts in their habitats.</p> <p>Wk 5 – Mini beast hunt around school looking in a variety of natural and manmade habitats.</p> <p>Wk 6 – Create a habitat for a mini beast. Take a picture and label the different parts.</p>	<p>Wk 1 – Make a branching key of their own to identify animals</p> <p>Wk 2 – Group work to make scientific observations and identification of invertebrates. Hunt invertebrates outside.</p> <p>Wk 3 – Sorting invertebrates into the 5 main categories and id. features</p> <p>Wk 4 – Habitat Trail. Define a habitat. List habitats and animals living there.</p> <p>Wk 5 – Litter pick Work collaboratively setting up equipment for scientific enquiry- Writing- Why is litter dangerous to living things?</p> <p>Wk 6 – Explore a neglected green space near school. Would it be harmful to wildlife? Design a mini-beast friendly area in the green space.</p>	<p>Wk 1 Recap work on mammals / reptiles etc (classification from Yr 4) Ch to understand how classification keys work – practical examples using children.</p> <p>Wk 2 – Create their own key to classify creatures using observable characteristics.</p> <p>Wk 3 – Create a key to classify cats (creatures with less differences)</p> <p>Extend to create key to classify dogs, or another species of choice. CH to research</p> <p>Wk 4 – Ch to classify creatures using the Linnean system. Ch to explore creatures in the same family / genus etc.</p> <p>Wk 5 – Identifying helpful / harmful microorganisms. Setting up investigation - mould</p> <p>Wk 6 – What does yeast need to grow investigation? (Balloons)</p> <p>Wk 7 – Revisiting mould investigation. Writing an effective conclusion. Produce hygiene leaflet.</p>

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	Key Stage 1		Lower Key Stage 2		Upper Key Stage 2	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals including Humans	<b>NC Objectives</b> *Identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals *Identify and name a variety of common animals that are carnivores, herbivores and omnivores *Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) *Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	<b>NC Objectives</b> *Notice that animals, including humans, have offspring which grow into adults. *Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) *Describe the importance for humans of exercise, eating the right amounts of food, and hygiene.	<b>NC Objectives</b> *Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. *Identify that humans and some animals have skeletons and muscles for support, protection and movement.	<b>NC Objectives</b> *Describe the simple functions of the basic parts of the 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.	<b>NC Objectives</b> *Describe the changes as humans develop to old age.	<b>NC Objectives</b> *Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. *Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. *Describe the ways in which nutrients and water are transported within animals, including humans.
	Wk 1 – Using an outline of the Human body label the different body parts. Wk 2 – Making a pictogram of eye colours and looking at the information from it Wk 3 – Using other pictogram information from body differences and comparing and contrasting Wk 4 – Exploring the 5 senses through practical activities. Wk 5 – Creating a senses booklet following on from the practical activities. Wk 6 – Practical investigation how sounds can change.  Wk 1 – Collage of animals on the Savannah. Wk 2 – Sorting savannah animals into groups Wk 3 – Sorting savannah animals into groups. Wk 4 – Venn diagram sorting animals into three groups	Wk 1 – Explore the differences between baby and adult animals. Wk 2 – Ordering pictures of human life cycle from birth to end of adulthood. Write about changes from baby, toddler, child. Wk 3 – Design the perfect desert island. What will it need for people and animals to survive on it. Wk 4 – Understand hygiene through a practical experiment using dirty and clean hands on bread. Write up and begin the experiment. Wk 5 – Sort foods and create a balanced plate. Wk 6 – Look at different exercises and the effects and create a graph	Wk 1 – Label the eat well plate categories/food groups and types of nutrients activity/what do nutrients do for us activity sheet Wk 2 – Sienna's Day activity sheet/work out sugar intake/record choices and explain. Wk 3 – Sorting skeleton type activity sheet/sort statements/pros and cons for skeleton/persuasive poster Wk 4 – Draw what they think is inside body/learn common name and scientific name of bones/split pin skeleton/fish skeleton activity sheet Wk 5 – List facts/draw diagram about muscles/investigate	Wk 1 – Drawing/labelling/ matching definitions of basic parts and functions of digestive system. Wk 2 – Write a short story about the journey of a piece of food through the digestive system/write an explanation of the digestive system. Wk 3 – Make a model of teeth and write a guide to different types of teeth. Wk 4 – Question and answer bubbles about what can damage teeth and looking after teeth Wk 5 – Identify different skulls comparing teeth of carnivores, herbivores and omnivores. Wk 6 – Practical construction of different	Wk 1 – Explanation about gestation periods and how they differ depending on the mammal and its size. Wk 2 – Looking at the development of the human foetus in particular. Wk 3 – Focusing on human development from birth to 11. Wk 4 – Looking at how humans develop during puberty and how that experience is different for boys and girls. Wk 5 – Humans in the later stages of their lives. Wk 6 – Looking at the key events over a human lifetime and plotting them onto a timeline.	Wk 1 – Recapping Year 3 / 4 work Recap sheet on digestive, skeletal and muscular systems Introduce the heart, lungs, blood and 'circulatory system'. Complete labelled diagram of c/s and write functions of heart, lungs and blood vessels. Wk 2 – Written responses – respond to question (learning objectives). Role of different parts of the blood. Graph showing different blood groups. Discuss implications of having different groups. Wk 3 – How to find & measure pulse – explanation. Investigation

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	<p>depending on food.</p> <p>Wk 5 – Predator and prey lesson.</p> <p>Why a predator chooses prey in Africa and how they find it.</p>		<p>activities and muscles used</p> <p>record results</p> <p>pictorially/record facts about muscles from investigation.</p> <p>Wk 6 – Devise and carry out investigation on muscle strength.</p>	<p>food chains using cards and strings. Create food chains into their books.</p>		<p>Wk 4 – Pulse investigation – what exercise increases the heart rate the most. Background – different types of exercise and its impact</p> <p>Wk 5 – Create labelled diagram of the lungs. Description of how the lungs work. Negative impact of smoking on the lungs. Diagram of lung and negative impact. Write description of how lungs work and the impact of smoking.</p> <p>Wk 6 – Learning about food groups and the impact on the body (positive and negative). Looking at food diaries / labels &amp; a balanced diet. Write about impact on the body though a particular healthy/unhealthy diet consumed long term.</p> <p>Wk 7&amp;8 – Recap nutrients and impact on body. Transporting water and nutrients sheet. Research more about the topic and c/s of animals. Create and deliver visual presentation of transportation of nutrients and water in human/animal.</p>
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	Key Stage 1		Lower Key Stage 2	Upper Key Stage 2
	Year 1	Year 2	Year 4	Year 5
KS1 Everyday materials/ Uses of everyday materials  LKS2 States of matter  UKS2 Properties and changes of materials	<b>NC Objectives</b> *Distinguish between an object and the material from which it is made. *Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. *Describe the simple physical properties of a variety of everyday materials. *Compare and group together a variety of everyday materials on the basis of their simple physical properties.	<b>NC Objectives</b> *Identify and compare the uses of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. *Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	<b>NC Objectives</b> *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 or research the temperature at which this happens in degrees Celsius. *Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	<b>NC Objectives</b> *Compare and group together everyday materials on the basis of their properties, including the hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. *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. *Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
	Wk 1 – Materials hunt around school and the classroom. Wk 2 – Sort materials according to their properties. Wk 3 – Plan investigation for teddy's spacesuit. Wk 4 – Carry out investigation for teddy's space suit. Wk 5 – Write up investigation Wk 6 – Discuss findings and what worked and didn't and why?	Wk 1 – materials activity sheet identifying materials and objects made from those materials. Children will write questions about materials do develop curiosity. Wk 2 – label and describe the material and the properties of that material. Including objects made of more than one material. Wk 3 – Plan investigation for the best underwater suit for Traction Man Wk 4 – Investigate different materials for Traction Man's suit. Wk 5 – Practical activity investigating how different materials can be changed by twisting,	Wk 1 – Create list of differences, describe solids, liquids and gases/write definitions of SLG. Wk 2 – Pouring water into different containers, child demo to prove and record volume and capacity. Explain how they know that gases exist. Wk 3 – Draw melting process – changing state diagram/description of liquid to gas/present info to class. Wk 4 – Group models of changing state/behaviours of SLG/explain how we benefit from change in state. Wk 5 – Investigation – evaporation – drying washing. Wk 6 – Water cycle – Information book.	Wk 1 – Organising materials based on their properties Understanding solids / liquids and gases. Wk 2 – Curtains challenge – testing a range of materials for suitability for curtains. Letter to explain findings Wk 3 – Separating materials challenges – Puddle water challenge Develop ch's understanding of dissolving / solutions etc. Clear liquid experiment. Wk 4 – Complete investigation started last lesson – which liquid contained the pure water? Conclude Wk 5 – Dissolving investigations – factors that affect the rate of dissolving volume of water etc Wk 6 – Dissolving investigations – factors that affect the rate of dissolving – temperature / stirring etc. Grps working with greater independence. Wk 7 - Develop understanding of reversible / irreversible changes – some changes result in the formation of a new material – irreversible change.

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		<p>squashing, squeezing and stretching. Wk 6 – Investigate what material gives you the bounciest ball.</p> <p>Wk 1 – Find out which the most common material in school is and why we think that showing results on a tally chart.</p> <p>Wk 2 – Investigating practically what is the strongest material for Traction Man's arm.</p> <p>Wk 3 – Practical investigation – What is the stretchiest material for the rope in the Giraffe Pelly and Me.</p> <p>Wk 4 – Practical activity – What is the best material to build a tower for Rapunzel?</p> <p>Wk 5 – Practical activity – What is the best material to make Thor's hammer fall the quickest.</p>		
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	Year 1	Year 2	Year 3	Year 5
Forces and Magnets	No NC Objectives		<b>NC Objectives</b> *Compare how things move on different surfaces. *Notice that some forces need contact between two objects, but magnetic forces can act 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.	<b>NC Objectives</b> *Explain that unsupported objects fall towards the 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 the some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
			Wk 1 – Forces in action drama/pushing and pulling activity sheet. Wk 2 – Investigation - friction Wk 3 – Explore magnetic force with magnet/sorting materials into magnetic and non-magnetic Wk 4 – Investigation – types of magnet and strength Wk 5 – Draw a diagram of magnet and poles/explore poles and attraction and repel/draw a compass Wk 6 – Design and make own magnetic game. Wk7 – BBC Bitesize Magnetman video, list his powers, write a short story about him.	Wk 1 – Produce table showing weight in g / force in newtons – of different objects. Labelled diagrams showing forces acting upon them. Exp of gravity. Wk 2 – Planning test to investigate air resistance – screwed up paper / flat paper from different heights. Wk 3 – Investigate air resistance – parachutes experiment – design a parachute. Which shape / material is most effective? Wk 4 – Friction – shoe investigation – exploring which materials would help to prevent slipping. Wk 5 – Understanding the effects of water resistance – boat investigation Wk 6 – Exploring levers, pulleys & gears. Find how they are used in real life and begin to understand how they work. Wk 7 – Exploring levers - Ch to make levers. Can ch start to make connections about the position of load & fulcrum etc. Draw diagram / explanation.

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	Key Stage 1		Lower Key Stage 2	Upper Key Stage 2
	Year 1	Year 2	Year 4	Year 6
Electricity	No NC Objectives		<b>NC Objectives</b> *Identify common appliances that can run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. *Identify 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. *Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. *Recognise some common conductors and insulators, and associate metals with being good conductors.	<b>NC Objectives</b> *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 the brightness of bulbs, the loudness of buzzers and the on/off position of switches. *Use recognised symbols when representing a simple circuit in a diagram.
			Wk 1 – Why learn about electricity? How do we keep safe from it? How is made and delivered to your home? Explore the different ways it can be made? Which 2 are best? Write explanation in books. Wk 2 – With given electricity packs, make the circuit work. Draw and label circuit. Wk 3 – Make a circuit for motor and then buzzer. Draw circuit and explain. Investigate different wire lengths/all components in circuits. Wk 4 – Insulator investigation. Wk 5 – Which materials can be used for electricity protective clothing? Wk 6 – Investigate switches – create own switch. Use a buzzer and create morse code.	Wk 1 – Understanding universal symbols Creating circuits and drawing using appropriate symbols Wk 2 – investigations – how to alter the brightness of bulb or the speed of a motor – results to include circuit diagrams. Wk 3 – Create a burglar alarm. Plan, create, adjust design as necessary. Wk 4 – Consider games involving circuit – wire buzzer games / operation etc. Challenge children to make their own wire buzzer game. Wk 5 – Building on previous week – ch to create their own game involving a circuit. Adjust plans / design as necessary.



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	Year 1	Year 2	Year 3	Year 6
Light	No NC Objectives		<b>NC Objectives - Light</b> *Recognise that they need light in order to see things and that dark is the absence of light. *Notice that light is reflected from surfaces. *Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. *Recognise that shadows are formed when light from a light source is blocked by a solid object. *Find patterns in the way that the size of shadows change.	<b>NC Objectives - Light</b> *Recognise that light appears to travel in straight lines. *Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. *Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. *Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
			Wk 1 – Light source sorting game/What's in the bag game and associated recording sheet. Wk 2 – Sources of light id./design reflective book bag and testing. Wk 3 – Reflective mirror games, mirror maze, How mirrors work to reflect an image – drawings to demonstrate. Wk 4 – UV light – Investigation/Damaging effect of light on eyes/design own glasses or sunhat and write explanation. Wk 5 – Investigation – How to block out light. Wk 6 – Investigate – how shadows change	Wk 1 – Identifying light sources & understanding that light travels in a straight light. Practical demonstrations. Wk 2 – Practical demonstrations to show how light travels from source, to object to eye. Wk 3 – Practical demonstration to prove the law of reflection. Wk 4 – Refraction investigations – straw in a glass / amazing arrow. Wk 5 - Shadow investigation – Ch to plan their own investigation to demonstrate how and why shadows change.

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	Year 1	Year 3	Year 4	Year 5	Year 6
	<b>NC Objectives – Seasonal Changes</b> *Observe changes across the four seasons. *Observe and describe weather associated with the seasons and how day length varies.	<b>NC Objectives – Rocks</b> *Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. *Describe in simple terms how fossils are formed when things that have lived are trapped within rock. *Recognise that soils are made from rocks and organic matter.	<b>NC Objectives - Sound</b> *Identify how sounds are made, associating some of them with something vibrating. *Recognise that vibrations from sounds travel through a medium to the ear. *Find patterns between the pitch of a sound and features of the object that produced it. *Find the patterns between the volume of a sound and the strength of the vibrations that produced it. *Recognise that sounds get fainter as the distance from the sound source increases.	<b>NC Objectives – Earth &amp; Space</b> *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.	<b>NC Objectives – Evolution &amp; Inheritance</b> *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 identical to their parents. *Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
Stand Alone Units	For each season the class will walk around the school grounds, look at the trees and plants and record what we notice about them. The children will record the outdoor temperature. In the classroom, complete the autumn/ winter/ spring & summer worksheet. Seasonal comparisons in continuous provision.	Wk 1 – Walk around school – rock hunt and uses. Wk 2 – Properties of rock - magnifying glass/draw and id. rock type. Wk 3 – Investigation –hardness, density and permeability Wk 4 – Fossils – create own with clay/research dinosaur fossils. Wk 5 – Create class composter/draw and label composter/id. best conditions Wk 6 – Rocks quiz/matching rocks and soils/investigation into soil permeability.	Wk 1 – making string telephones/written expl. of how sound travels Wk 2 – exploring and making musical instruments - sound boxes/Pan Pipes/bottles- recording results scientifically Wk 3/4 – Plan and carry out an investigation to find out which material muffles sound best. Make a muffler for an alarm clock. Write a letter to Professor Big Hair explaining results Wk 5 - Use data loggers to go on a sound trail and explore which is the noisiest part of school. Wk 6 – Write a report of the findings Wk 7 – Investigation into how sound changes with distance from source.	Wk 1 – Present an explanation of the theories in their science books with diagrams. Wk 2 – Use basketballs (Earth), tennis balls (moon), model boats and mini figures (Aristotle) to investigate why he concluded the world was spherical. In books, they drew diagrams and noted their observations. Wk 3 – Explore how night and day is created. Wk 4 – Use balls, sugar paper and torches to explore how the tilt of the Earth impacts day on night / how different hemispheres experience different times of day. Wk 5 – Use torches to recreate the different phases of the lunar cycle. In books, children drew diagrams of the cycle. Wk 6 – Research the planets	Wk 1 – Explanation about how fossils are formed. Research creatures which are extinct / at risk. Understand why this might be. Wk 2 - Inheritance – create new breed of dog Wk 3 – Understanding Charles Darwin's theory of evolution – inc natural selection Wk 4 –. Natural selection - Moth story Wk 5 – Finches investigation Wk 6 – Adaptation – how are plants adapted to suit their environment. Wk 7 – Adaptation – how are animals adapted to suit their environment. Wk 8 - How have humans evolved over time and how may they continue to evolve in the future?

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				Wk 7 – Model solar system to scale.	
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