



Linton Mead Subject Curriculum Overview for Science

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<ul style="list-style-type: none"> • 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. • 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 • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Understand the effect of changing seasons on the natural world around them. 					
1	Plants	Everyday materials	Seasonal changes	Animals including humans	Seasonal changes	Animals including humans
	<p><i>My World and the World of Others: a study of common wild and green plants.</i></p> <p>Name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify the basic structure of a variety of common flowering plants, including trees.</p>	<p><i>Environmental Change</i></p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p>	<p><i>Seasonal Changes- An in depth study of the changes in the seasons within the UK</i></p> <p>Observe changes across the four seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p><i>Me, Myself and I My Body- A study of the human body and our senses.</i></p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p><i>Seasonal Changes- An in depth study of the changes in the seasons within the UK and the weather that</i></p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>	<p><i>Animal Kingdom: animals in our world</i></p> <p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p>
	<p>Scientific skills</p> <p>Observe the growth of flowers and trees across the seasons. Describe how to group plants. Keep records of how plants change over time.</p>	<p>Scientific skills</p> <p>Distinguish between an object and the material from which it is made. Compare and group together a variety of everyday materials on the basis of their simple physical properties. Explore and experiment</p>	<p>Scientific skills</p> <p>Observe weather changes in autumn and winter. Observe how the environment, atmosphere and vegetation changes.</p>		<p>Scientific skills</p> <p>Observe weather changes in spring and summer. Observe how the environment, atmosphere and vegetation changes.</p>	

		with a wide variety of materials.				
2	Living things and their habitats	Living things and their habitats	Uses of everyday materials	Plants	Animals including humans	Animals including humans
	<p><i>Life and Death: What makes one thing living and another not?</i></p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Identify that most living things live in habitats including microhabitats.</p> <p>Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.</p>	<p><i>Life and Death: What makes one thing living and another not?</i></p> <p>Identify and name a variety of plants in their habitats.</p> <p>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.</p>	<p><i>Everyday Materials: Common uses of everyday materials and unusual uses of everyday materials.</i></p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p><i>Plant Science (Botany)- the study of plants.</i></p> <p>Know and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Understand the requirements for germination and plant health.</p>	<p><i>Animals Science: A in depth study of how animals have offspring and their needs for survival (including human).</i></p> <p>Notice that animals, including humans, have offspring which grow into adults.</p> <p>Describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>Recognise the process of growth in animals and humans.</p>	<p><i>Healthy Living: an in-depth study of the importance of diet and exercise</i></p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>

	Scientific skills Explore and compare the differences between things that are living, dead, and things that have never been alive. Classify objects by whether they are alive, were once alive or never alive.	Scientific skills Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain. Identify and name different sources of food	Scientific skills Compare the uses of everyday materials. Carry out investigations to test the suitability of a material for a purpose.	Scientific skills Observe and describe how seeds and bulbs grow into mature plants. Record growth from seeds or bulbs over time. Comparative testing to see how light and water affect plant growth.	Scientific skills Ask questions about what things animals need for survival and what humans need to stay healthy.	Scientific skills Observe the affects exercise has on humans.
3	Rock and Soils <i>'A series of discoveries'- The study of geology. What is a geologist?</i> Describe how fossils are formed when things that have lived are trapped within rock.	Rock and Soils <i>'A series of discoveries'- The study of geology. What is a geologist?</i> Recognise that soils are made from rocks and organic matter.	Light <i>Natural Phenomena: An in depth study of light, darkness and shadows</i> Recognise that we 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 the light from a light source is blocked by an opaque object.	Plants <i>Botany- The study of plants</i> Explore different types of plants and the requirements for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	Forces and magnets <i>Physics and magnetism: an in- depth study of the magnetic force.</i> Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Describe magnets as having two poles.	Animals including humans <i>Mammalogy- the study of mammals.</i> 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.
	Scientific skills Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Identify and classify some types of rock and explain their uses.		Scientific skills Find patterns in the way that the size of shadows change. Look for and measure shadows. Explore how they are formed and what might cause the shadows to change.	Scientific skills Describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Investigate and observe the way in which water is transported within plants. Compare the effect of	Scientific skills Investigate whether two magnets will attract or repel each other. Investigate and observe how magnets attract or repel some materials and not others. Classify different magnetic and non-	Scientific skills Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Compare and contrast the diets of different animals.

			Explore what happens when light reflects off a mirror.	different factors on plant growth.	magnetic materials. Explore the behaviour and everyday uses of different magnets. Look for patterns in the way that magnets behave in relation to each other and what might affect this.	
4	Sound	States of matter	Animals including humans	Electricity	Living things and their habitats	Animals including humans
	<p><i>Acoustics- The study of sounds and the effects of them.</i></p> <p>Explore how sounds are made, associating some of them with something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<p><i>The World of Physics: the study of states of matter.</i></p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p><i>Gastroenterology: The study of the digestive system.</i></p> <p>Describe the simple functions of the basic parts of the digestive system in humans.</p> <p>Identify the different types of teeth in humans and their simple functions.</p> <p>Name and understand the functions of the mouth, tongue, teeth, oesophagus, stomach and small and large intestine.</p>	<p><i>The World of Physics: an in-depth study of electrical circuits.</i></p> <p>Identify common appliances that run on electricity.</p> <p>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.</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>	<p><i>Animal Classifications: What type of animal is this?</i></p> <p>Recognise that living things can be grouped in a variety of ways.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p><i>Predators and Prey- an in depth study of food chains</i></p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey.</p>

	Scientific skills 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 produced it.	Scientific skills Observe and classify 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 (°C).	Scientific skills Finding out what damages teeth and looking at how to look after them.	Scientific skills Construct a simple series electrical circuit, identifying and naming its basic parts. Draw circuits as a pictorial representation, not necessarily using conventional circuit symbols. Observe which materials are conductors and insulators.	Scientific skills Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.	Scientific skills Classify different animals based on their diet.
5	Forces - Air and Water resistance. Pulleys, levers and gears <i>Feel the Force: The study of resistance and friction</i> Forces 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.	Earth and Space <i>Our solar system- The study of astronomy</i> 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. Learn that the Sun is a star at the centre of our solar system and that it has eight planets.	Living things and their habitats <i>The Circle of Life: An in-depth study of the life cycles of animals and plants (bioscience)</i> 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.	Forces (gravity) <i>Newton's Theory- an in-depth study of gravity and forces</i> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.	Properties and changes of materials <i>Chemical changes an in-depth study of the properties of materials and how they change.</i> 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 acid on bicarbonate of soda.	Animals including humans <i>Physiology- the study of the human body</i> Describe the changes as humans develop to old age. Learn about the changes experiences in puberty.

	Scientific skills Make a variety of parachutes and carry out fair tests to determine which designs are the most effective. Design and make products that use levers, pulleys, gears and/or springs.	Scientific skills Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Create simple models of the solar system.		Scientific skills Experience forces that make things begin to move, get faster or slow down.	Scientific skills 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. Conduct comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	Scientific skills Research the gestation periods of other animals and compare them with humans.
6	Living things and their habitats <i>The Study of Taxonomy- The classifying of organisms</i> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	Light <i>Optical Phenomena: The study of light and matter.</i> 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	Electricity <i>Electronic Circuits- The study of how circuits are compassed and electricity is transmitted.</i> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Use recognised symbols when representing a simple circuit in a diagram.	Evolution and inheritance <i>Adaptation: An in- depth study of adaptation and genetics</i> 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	Animals including humans Anatomy and Lifestyle- an in-depth study of healthy lifestyle choices and the circulatory system. 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.	

		cast them.			
	Scientific skills Discuss and give reasons for classifying and grouping living things. Use classification systems to identify and observe some living things in the immediate environment, including microorganisms.	Scientific skills 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. Investigate the relationship between light sources, objects and shadows by using shadow puppets. Investigate and explain a range of phenomena, including rainbows.	Scientific skills 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. Construct simple series circuits, to help them to answer questions about what happens when they try different components.	Scientific skills Explore habitats and microhabitats to see how evolution has helped life to survive.	Scientific skills Describe the ways in which nutrients and water are transported within animals, including humans. Explore the relationship between diet, exercise, drugs, lifestyle and health.