

Evaluation should ensure that our curriculum is:

- is broad and balanced, complies with legislation and provides a wide range of subjects, preparing pupils for the opportunities, responsibilities and experiences of later life in modern Britain; inspectors should not expect to see a particular range of subjects but should be alert to any unexplained narrowness in the breadth of curriculum being offered by the school
- actively promotes the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs
- focuses on the necessary priorities for ensuring that all pupils make excellent progress in reading, writing and mathematics
- promotes high levels of achievement and good behaviour
- links to the school's system of assessment and that together they set out what pupils are expected to know, understand and do, and when
- information about what is taught in the curriculum each year is shared with parents and carers, including by meeting the statutory requirement to make curriculum information available on the school's website
- promotes tolerance of and respect for people of all faiths (or those of no faith), races, genders, ages, disability and sexual orientations (and other groups with protected characteristics⁴⁴) through the effective spiritual, moral, social and cultural development of pupils, including through the extent to which schools engage their pupils in extra-curricular activity and volunteering within their local community

SUBJECT LEADER: Lorna Pennance			
SUBJECT: Science			
Year Group	Autumn	Spring	Summer
Preschool (Knowledge and understanding of the world)	Development Matters Statements 22-36 months <ul style="list-style-type: none"> • Notices detailed features of objects in their environment. Development Matters Statements 30-50 months <ul style="list-style-type: none"> • Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Talks about why things happen and how things work. • Developing an understanding of growth, decay and changes over time. • Shows care and concern for living things and the environment. Science Week Cover Seasons throughout the year.		
R (Knowledge and understanding of the world)	Development matters 40-60 m as starting point for ARE children <ul style="list-style-type: none"> • Looks closely at similarities, differences, patterns and change. Early Learning Goal <ul style="list-style-type: none"> • Children know about similarities and differences in relation to places, objects, materials and living things. • They make observations of animals and plants and explain why some things occur, and talk about changes. Science Week		
1	Everyday materials <ul style="list-style-type: none"> • Distinguish between object & material made from • Identify and name variety of everyday materials (wood, plastic, glass, metal, water, rock) • Describe simple physical properties of variety of everyday materials • Compare & group together a variety of everyday materials based on above Seasonal changes <ul style="list-style-type: none"> • observe changes across 4 seasons, • observe & describe weather • how day length varies. 	Animals including humans <ul style="list-style-type: none"> • identify & name a variety of common animals • carnivores, herbivores and omnivores • Identify & describe basic structure of a variety of common animals • identify, name, draw label basic parts of human body & senses Seasonal changes <ul style="list-style-type: none"> • observe changes across 4 seasons, • observe & describe weather • how day length varies. 	Plants <ul style="list-style-type: none"> • identify & name a variety of common wild & garden plants (deciduous / evergreen) • Identify & describe basic structure of a variety of common flowering plants, including trees. Seasonal changes <ul style="list-style-type: none"> • observe changes across 4 seasons, • observe & describe weather • how day length varies.
2	Uses of Everyday Materials <ul style="list-style-type: none"> • Identify and compare suitability of variety of everyday materials for particular uses (wood, 	Living things and their habitats <ul style="list-style-type: none"> • Explore & compare differences between things living, dead and things that 	Living things – Plants <ul style="list-style-type: none"> • Observe & describe how seeds, bulbs grow into mature plants • Find out and describe how plants

	<p>plastic, glass, metal, water, rock etc)</p> <ul style="list-style-type: none"> Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting, stretching, bending. 	<ul style="list-style-type: none"> have never lived Identify that most living things live in habitats to which suited & describe how different habitats provide for basic needs of different kinds of animals and plants & dependency. Identify animals & their habitats. Simple food chains Notice that animals including humans have offspring that grow into adults Find out about and describe basic needs of animals for survival importance for humans of exercise, diet and hygiene. <p>Animal including humans</p> <ul style="list-style-type: none"> 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 different types of food, and hygiene. 	<ul style="list-style-type: none"> need water, light and suitable temperature to stay healthy Identify and name plants
3	<p>Light <i>Children will use the question: "How did the Ancient Egyptians see?" to explore light and investigate shadow.</i></p> <ul style="list-style-type: none"> 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 the light from a light source is blocked by a solid object find patterns in the way that the size of shadows change. <p>Rocks <i>Children will use the question: How did the Egyptians build the pyramids?" to investigate rocks.</i></p> <ul style="list-style-type: none"> 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. 	<p>Plants <i>Children will build upon their Y2 learning and use Viking's farming technology to study and build upon their plant knowledge.</i></p> <ul style="list-style-type: none"> 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. <p>Animals including Humans <i>Children will use a typical viking's diet to investigate what both animals and humans need to survive.</i></p> <ul style="list-style-type: none"> identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their 	<p>Forces and Magnets <i>Children will investigate forces and magnets through a series of experiments</i></p> <ul style="list-style-type: none"> compare how things move on different surfaces notice that some forces need contact between 2 objects, but magnetic forces can act at a distance observe how magnets attract or repel each other and attract some materials and not others compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials describe magnets as having 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing.

		<p>own food; they get nutrition from what they eat</p> <ul style="list-style-type: none"> identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	
4	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p> <ul style="list-style-type: none"> Construct and interpret a variety of food chains, identifying producers, predators and prey. <p>Electricity</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify common appliances that 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. 	<p>Sound</p> <ul style="list-style-type: none"> Identify how sounds are made – vibrations Recognise that sounds travel to ear through a medium Find patterns between pitch of sound and features of object that produced it Find patterns between volume of sound and strengths of vibrations that produced it. Recognise that sounds get fainter as distance from sound source increases <p>States of Matter</p> <ul style="list-style-type: none"> 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 measured or research the temperature at which this happens in degrees Celsius. Identify the part played by evaporation & condensation in the water cycle & associate the rate of evaporation with temperature 	<p>Animals including Humans</p> <ul style="list-style-type: none"> 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. Human: Construct and interpret a variety of food chains, Human: identifying producers, predators and prey. Egg experiment carried out.
5	<p>Earth sun and moon</p> <ul style="list-style-type: none"> Describe movement of earth, sun and moon & other planets relative to sun in solar system Movement of moon in relation to Earth Spherical bodies Earth's rotation as an expression of day and night <p>Working scientifically</p> <p>Properties and changes of materials</p> <ul style="list-style-type: none"> Properties of everyday materials Dissolving in liquid to form solution, recover a substance from a solution Solids, liquids, gases – separate – filtering, sieving, evaporating Particular uses of everyday 	<p>Forces</p> <ul style="list-style-type: none"> Explain unsupported objects fall to earth – gravity Identify effects of air resistance, water resistance, friction that act between moving surfaces Recognise that some mechanisms (levers, pulleys, gears) allow a smaller force to have greater effect <p>Working scientifically</p>	<p>Living things and their habitats</p> <ul style="list-style-type: none"> Describe life cycles in animals, insects, mammals, amphibians, bird and notice differences Describe life processes in reproduction in some animals and plants Water cycle: Identify the part played by evaporation and condensation and associate the rate of evaporation with temperature. <p>Working scientifically</p> <p>Living things- animals</p> <ul style="list-style-type: none"> Describe the changes humans develop to old age <p>Working scientifically</p>

	<p>materials – compare and test</p> <ul style="list-style-type: none"> • Dissolving, mixing and changes of state are reversible changes • Some new materials are formed through changes – not always reversible <p>Working scientifically</p>		
6	<p>PHYSICS</p> <p>Electricity</p> <ul style="list-style-type: none"> • 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. <p>PHYSICS</p> <p>Light</p> <ul style="list-style-type: none"> • 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 and I know how simple optical instruments work, e.g. periscope, telescope, mirror or magnifying glass • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 	<p>BIOLOGY</p> <p>Living things and their habitats</p> <ul style="list-style-type: none"> • 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 <p>BIOLOGY</p> <p>Evolution</p> <ul style="list-style-type: none"> • 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 • I know about evolution and can explain what it is 	<p>BIOLOGY</p> <p>Living things: Animals</p> <ul style="list-style-type: none"> • 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. <p>SATs REVISION OF SCIENCE CURRICULUM</p>