

St. Matthew's Bloxam C. of E. Primary School – Long term Science Plan.

Year 1	Year 2	Year3	Year 4	Year 5	Year 6
KS1 Working scientifically - Simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions		LKS2 Working scientifically - Asking relevant questions and using different types of scientific enquiries to answer them - Setting up simple practical enquiries, comparative and fair tests - Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions - Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions - Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions - Identifying differences, similarities or changes related to simple scientific ideas and processes - Using straightforward scientific evidence to answer questions or to support their findings.		UKS2 Working scientifically - Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary - Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate - Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs - Using test results to make predictions to set up further comparative and fair tests - Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations - Identifying scientific evidence that has been used to support or refute ideas or arguments	
Plants (identify and name common and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of plants)	Living things and their habitats (Explore and compare living, dead and things never alive, suitable habitats, identify and name variety of plants and animals in habitats, simple food chains)	Plants (Requirements for growth, function of parts, investigate way water is transported within plants & life cycle)	Living things and their habitats (grouping / simple classifying /changes to habitats) (from living things grouping/classifying plants & benefits e.g. green spaces in cities & dangers e.g. deforestation)	Living things and their habitats (Describe the difference in the life cycles of a mammal, an amphibian, an insect, bird, describe the life process of reproduction in some plants and animals)	Living things and their habitats (classifying including microorganisms) <i>(From living things topic classifying plants. From evolution topic how plants have adapted to suit their environment)</i>
	Plants (Observe and describe how seeds and bulbs grow into mature plants, find out about conditions for growing)				
Animals, including humans (identify and naming animals and identify variety of common animals that are herbivores, omnivores and carnivores, describe and compare structure of animals & identify, name, draw and label body parts and senses)	Animals, including humans (Notice that animals including humans have offspring which grow into adults, find out basic needs of animals, describe importance of exercise, food, health and growth)	Animals, including humans (Identify that animals need the right types and amount of nutrition, cannot make their own food, get nutrition from what they eat, identify that humans and other animals have skeletons and muscles for support, protection and movement)	Animals, including humans (Health: teeth, eating and digestion, food chains – identifying producers, predators and prey)	Animals, including humans (changes in humans as they grow) <i>(Animals Part of living things topic life cycles & reproduction in animals)</i>	Animals, including humans (Recognise impact of diet, exercise, drugs and lifestyles on health and way body functions, and identity and name main parts of human circulatory system, describe ways in which nutrients and water are transported with animals)

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Seasonal Changes (Observe the 4 seasons and changes and describe the weather associated with seasons and how day length varies.)					Evolution and inheritance (Recognise that living things have changed over time and fossils provide information about living things that inhabited the Earth millions of years ago, recognise that living things produce offspring of same kind and offspring vary and are not identical, how animals and plants adapted to suit their environment)
Everyday materials (Distinguish between an object and material it is made, name a variety of everyday materials, describe physical properties, compare and group variety of everyday materials)	Uses of every day materials (Identify and compare the suitability of everyday materials for particular use, includes physical changes squash, bend etc.)	Rocks (Compare and group different kinds of rocks, describe fossil formation and recognise that soils are made from rocks and organic matter.	States of matter (Compare and group materials together, solid, liquid, gas, observe some materials change state, evaporation and condensation in the water cycle.)	Properties of materials (Compare and group together materials on basis of properties – hardness, solubility, transparency, conductivity, response to magnets, dissolve to form a solution, solids, liquids and gases, uses of everyday materials, reversible and irreversible changes)	Properties of materials (Compare and group together materials on basis of properties – hardness, solubility, transparency, conductivity, response to magnets, dissolve to form a solution, solids, liquids and gases, uses of everyday materials, reversible and irreversible changes) TO BE TAUGHT IN YEAR 6 - 2021 - 2022
		Light (need to see, darkness, reflection, dangers, shadows, find patterns in way that the size of shadows change)	Sound (How sounds are made, vibrations travel through a medium to the ear, find patterns between pitch / volume and features of objects that produced it, sounds get fainter as the distance from the sound source increases.)	Earth and Space (Describe the movement of the Earth and other planets relative to the sun in the solar system, describe movement of the moon, explain day and night)	Light (recognise that light appears to travel in straight lines, how we see things and why shadows have same shape as the objects that cast them)
		Forces and magnets (Compare how things move on different surfaces, magnets repel and attract, group together a variety of materials on basis of whether they are attracted to a magnet, magnets have 2 poles, predict whether 2 magnets will attract or repel)	Electricity (Identify common appliances that run on electricity, construct a simple series, identify whether a lamp will light or not in a simple series circuit, recognise that a switch opens and closes a circuit, recognise conductors and insulators)	Forces (gravity, friction, air & water resistance, mechanisms, levers pulleys gears)	Electricity (Associate the brightness of a lamp/ volume of buzzer with voltage of cells, compare and give reasons for variations in how components function and use recognised symbols when representing simple circuit.)