St Alban's CATHOLIC PRIMARY SCHOOL

DIOCESE OF EAST ANGLIA

Christ Be Our Light

Year Group	Progression of skill	EYFS – Early Learning Goal	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Biology	**1) Living things can be classified according to observable features**	Explore the natural world around them, making observations and drawing pictures of animals and plants.				**4.1.1** Recognise that living things can be grouped in a variety of ways **4.1.2** Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment		**6.1.1** 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 **6.1.2** Give reasons for classifying plants and animals based on specific characteristics
	2) Habitats provide living things with what they need	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.		**2.2.2** Identify and name a variety of plants and animals in their habitats, including micro-habitats **2.2.3** 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 **2.2.4** Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	**3.2.1** 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	**4.2.1** Recognise that environments can change and that this can sometimes pose dangers to living things		
	3) Living things exhibit variation and adaptation and these may lead to evolution.							**6.3.1** Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago **6.3.2** Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents **6.3.3** Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
	4a) Life exists in a variety of forms and goes through cycles – Plants	Explore the natural world around them, making observations and drawing pictures	**1.4a.1** Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	**2.4a.1** Observe and describe how seeds and bulbs grow into mature plants **2.4b.1** Notice that animals, including	**3.4a.1** Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers		**5.4b.1** Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird **5.4b.2** Describe the changes as humans develop to old age	

	4b) Life exists in a variety of forms and goes through cycles – Animals	of animals and plants.	**1.4a.2** Identify and describe the basic structure of a variety of common flowering plants, including trees **1.4a.3** Explore and compare the differences between things that are living, dead, and things that have never been alive **1.4b.1** Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals **1.4b.2** Identify and name a variety of common animals that are carnivores, herbivores and omnivores	humans, have offspring which grow into adults **2.4b.2** Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	**3.4a.2** Investigate the way in which water is transported within plants **3.4a.3** Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal **3.4b.1** 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			
	5) The human body has a number of systems, each with its own function		**1.5.1** Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) **1.5.2** Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	**2.5.1** Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	**3.5.1** Identify that humans and some other animals have skeletons and muscles for support, protection and movement	**4.5.1** Describe the simple functions of the basic parts of the digestive system in humans **4.5.2** Identify the different types of teeth in humans and their simple functions **4.5.3** Construct and interpret a variety of food chains, identifying producers, predators and prey	**5.5.1** Describe the life process of reproduction in some plants and animals	**6.5.1** Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood **6.5.2** Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function **6.5.3** Describe the ways in which nutrients and water are transported within animals, including humans
Chemistry	**1) Different rocks have different properties and the formation of soil & fossils can be explained.**				**3.1.1** Describe in simple terms how fossils are formed when things that have lived are trapped within rock **3.1.2** Recognise that soils are made from rocks and organic matter			

	2) Materials have physical properties which can be investigated and compared	Understand some important processes and changes in the natural world around them, including seasons and changing states of matter.	**1.2.1** Distinguish between an object and the material from which it is made **1.2.2** Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock **1.2.3** Describe the simple physical properties of a variety of everyday materials **1.2.4** Compare and group together a variety of everyday materials on the basis of their simple physical properties	**2.2.1** Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	**3.2.1** Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	**4.2.1** Compare and group materials together, according to whether they are solids, liquids or gases	**5.2.1** 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 **5.2.2** Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution **5.2.3** Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating **5.2.4** Demonstrate that dissolving, mixing and changes of state are reversible changes **5.2.5** 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	
	3) The physical properties of materials determine their uses.	Understand some important processes and changes in the natural world around them, including seasons and changing states of matter.		**2.3.1** Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses			**5.3.1** Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	
	4) Materials can exist in different states and that these states can sometimes be changed	Understand some important processes and changes in the natural world around them, including seasons and changing states of matter.				**4.4.1** Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature **4.4.2** 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)		

Physics	**1) There are contact and non-contact forces; these affect the motion of objects.**				**3.1.1** Compare how things move on different surfaces **3.1.2** Notice that some forces need contact between two objects, but magnetic forces can act at a distance **3.1.3** Observe how magnets attract or repel each other and attract some materials and not others **3.1.4** 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 **3.1.5** Describe magnets as having two poles **3.1.6** Predict whether two magnets will attract or repel each other, depending on which poles are facing		**5.1.1** Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object **5.1.2** Identify the effects of air resistance, water resistance and friction, that act between moving surfaces **5.1.3** Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	
	2) Day, night, month, seasonal change & year are caused by the position and movement of the Earth	Understand some important processes and changes in the natural world around them, including seasons and changing states of matter.	**1.2.1** Observe changes across the four seasons **1.2.2** Observe and describe weather associated with the seasons and how day length varies				**5.2.1** Describe the movement of the Earth, and other planets, relative to the Sun in the solar system **5.2.2** Describe the movement of the Moon relative to the Earth **5.2.3** Describe the Sun, Earth and Moon as approximately spherical bodies **5.2.4** Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	
	3) Light & sound can be reflected & absorbed and enable us to see & hear	Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps.			**3.3.1** Recognise that they need light in order to see things and that dark is the absence of light **3.3.2** Notice that light is reflected from surfaces **3.3.3** Recognise that light from the sun can be dangerous and that there are ways to protect their eyes	**4.3.1** Identify how sounds are made, associating some of them with something vibrating **4.3.2** Recognise that vibrations from sounds travel through a medium to the ear **4.3.3** Recognise that sounds get fainter as the distance from the sound source increases **4.3.4** Find patterns between the pitch of a sound and		**6.3.1** Recognise that light appears to travel in straight lines **6.3.2** 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 **6.3.3** 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

					3.3.4 Recognise that shadows are formed when the light from a light source is blocked by a solid object **3.3.5** Find patterns in the way that the size of shadows change	features of the object that produced it **4.3.5** Find patterns between the volume of a sound and the strength of the vibrations that produced it		**6.3.4** Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
	4) Electricity can make circuits work and can be controlled to perform useful functions					**4.4.1** Identify common appliances that run on electricity **4.4.2** Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers **4.4.3** Recognise some common conductors and insulators, and associate metals with being good conductors **4.4.4** 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 **4.4.5** Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit		**6.4.1** Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit **6.4.2** 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 **6.4.3** Use recognised symbols when representing a simple circuit in a diagram
Scientific Enquiry	**1) Planning investigations**	**a) Pupils can ask questions**		**1.1.a.1** Ask simple questions when prompted (+)	**2.1.a.1** Ask simple questions (^)	**3.1.a.1** Ask relevant questions when prompted (+)	**4.1.a.1** Ask relevant questions (^)		
		b) Pupils can plan an enquiry		**1.1.b.1** Suggest ways of answering a question (+)	**2.1.b.1** Recognise that questions can be answered in different ways (^)	**3.1.b.1** Set up simple and practical enquiries, comparative and fair tests (+)	**4.1.b.1** Plan different types of scientific enquiries to answer questions (^)	**5.1.b.1** With prompting, plan different types of scientific enquiries to answer questions (+)	**6.1.b.1** Plan different types of scientific enquiries to answer questions (^)
		c) Pupils can identify and manage variables				**3.1.c.1** Set up comparative tests (+)	**4.1.c.1** Set up simple and practical enquiries, comparative and fair tests (+)	**5.1.c.1** With prompting, recognise and control variables where necessary (+)	**6.1.c.1** Recognise and control variables where necessary (^)
Scientific Enquiry	**2) Conducting experiments**	**a) Pupils can use equipment to take measurements**		**1.2.a.1** Make relevant observations (+) **1.1.a.2** Conduct simple tests, with support (+)	**2.2.a.1** Observe closely, using simple equipment **2.2.a.2** Perform simple tests	**3.2.a.1** Make systematic observations, using simple equipment (+)	**4.2.a.1** Make systematic and careful observations using a range of equipment, including thermometers and data loggers	**5.2.a.1** Select, with prompting, and use appropriate equipment to take readings (+)	**6.2.a.1** Take measurements using a range of scientific equipment (^)
		b) Pupils explore how to improve the quality of data				**3.2.b.1** Use standard units when taking measurements (+)	**4.2.b.1** Take accurate measurements using standard units, where appropriate (+)	**5.2.b.1** Take precise measurements using standard units (+)	**6.2.b.1** Take measurements with increasing accuracy and precision (^)

		c) Pupils understand the role of repeat readings						**5.2.c.1** Take and process repeat readings (+)	**6.2.c.1** Take repeat readings when appropriate (^)
Scientific Enquiry	**3) Recording evidence**	**a) Pupils record work with diagrams and label them**		**1.3.a.1** With prompting, suggest how findings could be recorded (+)	**2.3.a.1** Record and communicate their findings in a range of ways and begin to use simple scientific language	**3.3.a.1** Record findings in various ways (+)	**4.3.a.1** Record findings using simple scientific language, drawings and labelled diagrams (^)	**5.3.a.1** Record data and results (+)	**6.3.a.1** Record data and results of increasing complexity using scientific diagrams and labels (^)
		b) Pupils can display data using labelled diagrams, keys, tables and bar charts				**3.3.b.1** With prompting, suggest how findings may be tabulated (+)	**4.3.b.1** Record findings using keys, bar charts, and tables (^)	**5.3.b.1** Record data using labelled diagrams, keys, tables and charts (+)	**6.3.b.1** Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar charts (^)
		c) Pupils can display data using line graphs				**3.3.c.1** With prompting, use various ways of recording, grouping and displaying evidence (+)	**4.3.c.1** Gather, record, classify and present data in a variety of ways to help to answer questions	**5.3.c.1** Use line graphs to record data (+)	**6.3.c.1** Record data and results of increasing complexity using line graphs (^)
Scientific Enquiry	**4) Reporting findings**	**a) Pupils process findings to develop conclusions and identify causal relationships**		**1.4.a.1** Recognise findings (+)	**2.4.a.1** Identify and classify	**3.4.a.1** With prompting, suggest conclusions from enquiries (+)	**4.4.a.1** Report on findings from enquiries, including oral and written explanations, of results and conclusions (^)	**5.4.a.1** Report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships (+)	**6.4.a.1** Report and present findings from enquiries, including conclusions and causal relationships (^)
		b) Pupils use displays and presentations to report on findings				**3.4.b.1** Suggest how findings could be reported (+)	**4.4.b.1** Report on findings from enquiries using displays or presentations (^)	**5.4.b.1** With support, present findings from enquiries orally and in writing (+)	**6.4.b.1** Report and presents findings from enquiries in oral and written forms such as displays and other presentation (^)
		c) Pupils explain confidence in findings						**5.4.c.1** With prompting, identify that not all results may be trustworthy (+)	**6.4.c.1** Report and present findings from enquiries, including explanations of, and degree of, trust in results (^)
Scientific Enquiry	**5) Conclusions and predictions**	**a) Pupils can analyse data**		**1.5.a.1** Gather and record data (+)	**2.5.a.1**: Gather and record data to help answer questions (+)	**3.5.a.1** Gather and record data about similarities, differences and changes (+)	**4.5.a.1** Identify differences, similarities or changes related to simple scientific ideas and processes		
		b) Pupils can draw conclusions		**1.5.b.1** Use observations to suggest answers to questions (+)	**2.5.b.1** Use their observations and ideas to suggest answers to questions	**3.5.b.1** With prompting, suggest conclusions that can be drawn from data (+)	**4.5.b.1** Use straightforward scientific evidence to answer questions or to support their findings	**5.5.b.1** Suggest how evidence can support conclusions (+)	**6.5.b.1** Identify scientific evidence that has been used to support or refute ideas or arguments (^)
		c) Pupils can develop investigation further				**3.5.c.1** Suggest possible improvements or further questions to investigate (+)	**4.5.b.1** Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	**5.5.c.1** Suggest further comparative or fair tests (+)	**6.5.c.1** Use test results to make predictions to set up further comparative and fair tests

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