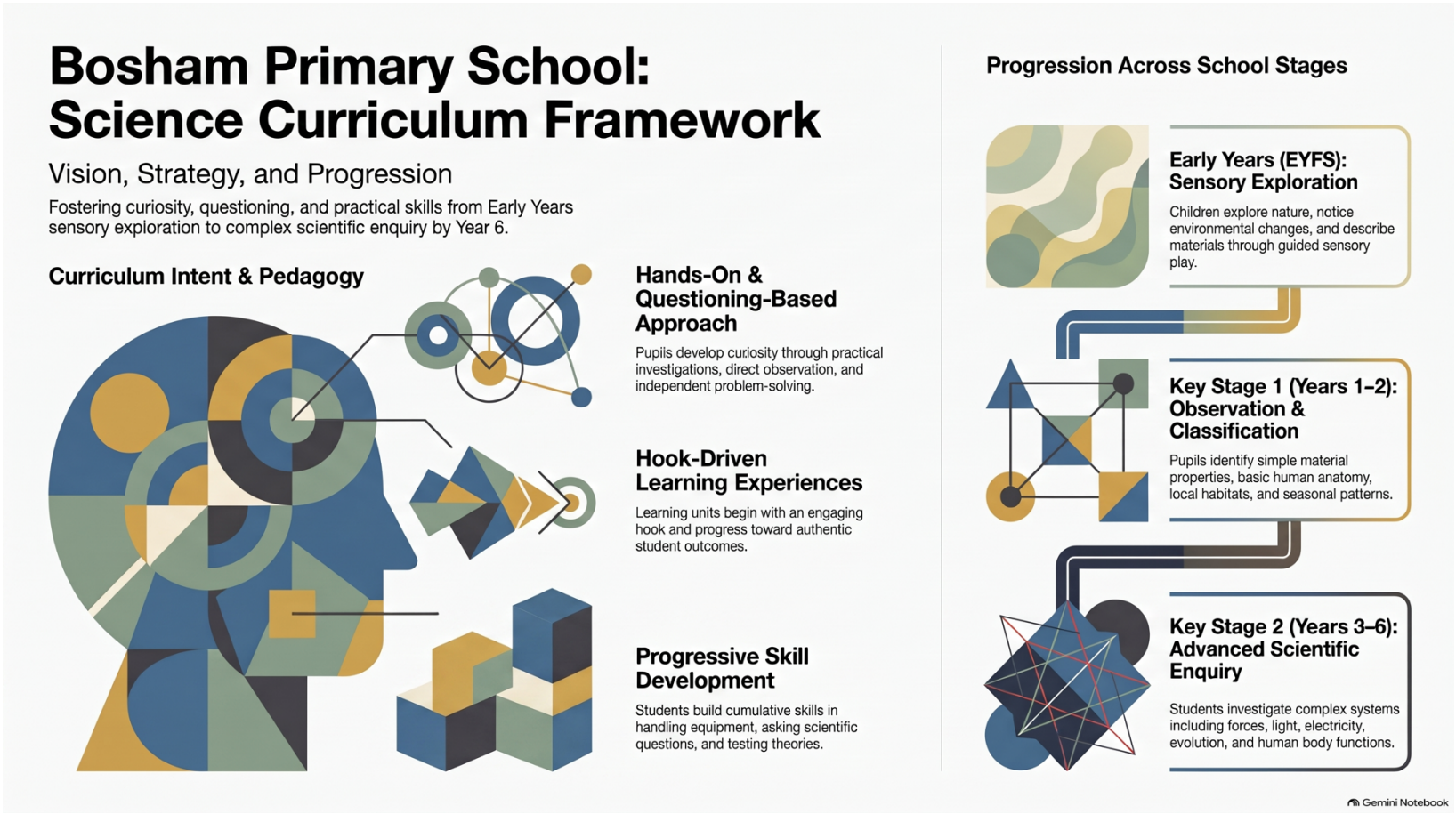


At Bosham Primary school our science curriculum promotes an excitement along with a curiosity about the world around them. We believe science encompasses the acquisition of knowledge, concepts, skills and enquiry. We recognise that science is everywhere around us and impacts our daily lives. Our intent is to deliver a science curriculum which is exciting and accessible for all our pupils to develop an enquiring mind, to be given the skills to ask scientific questions and skills to be able to work scientifically, to develop an enthusiasm and enjoyment of science.

Throughout the 'Learning experiences' the children will be hooked into their learning through an exciting hook the children them take steps of learning through to a authentic final outcome. The key skills will be built on across each year group. Working scientifically (see Appendix A) are built on and developed during the child's time at school to ensure they can confidently use equipment, ask well thought out questions, conducting experiments and explain concepts with confidence.

Our curriculum aims to prepare our children for a life in an increasing scientific and technological world. We believe learning in science should be through questioning, investigations and a 'hands on' approach, leading to the children being independently able to answer scientific questions and be curious about their surroundings and the wider world. Our science curriculum aims to provide the children with creativity, independence and motivation to continue to further develop their skills in to their future

	1.1.	1.2.	2.1.	2.2.	3.1.	3.2.
EYFS	**Area of EYFS:** Understanding the world Communication and language mathematics					
	Key skills and knowledge: To notice changes/ differences To experiment with textures and materials To explore nature					
	ELG: The natural world Creating with materials					
	Opportunities across the year: Walks around school ground/ field Water and sand play Different materials to explore – cornflower/ gloop/ ice etc.					
	Parts of the body	**Colour, light/ dark**	**Animals and habitats - contrast**	**Materials** **Plants**	**Mini beasts and their habitats** **Plants**	**Floating and sinking** **The seaside**
	Communication: Comment on what they notice about the environment where they live and **understand the effect of the changing seasons on the natural world around them. Describe what they see, hear, and feel outside.** **Observation: Explore the natural world around them** - making observations and drawing pictures of animals and plants. Understand the need to respect and care for the natural environment and all living things.					
Work scientifically for Y1 & Y2 **This concept involves learning the methodologies of the discipline of science** • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions.						
Y1		**Rats, Toys & Kings** **Everyday materials** • 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	**Wonderful Me** **Animals including humans** • identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.		**Powerful Plants** **Plants** • 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	**The Carnival of the Animals** **Animals including humans** • 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)

	Longitudinal study throughout the year. - Seasonal changes → • observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies					
Y2	**Deep in the woods** **Animals, including humans** • 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)	**Incredible You** **Animals, including humans** • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	**I Spy With My Little Eye** **Uses of everyday materials** • identify and compare the suitability 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	**The Secret Garden** **Plants** • 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		**Wild & Wonderful** **Living things and their habitats** • explore and compare the differences between things that are living, dead, and things that have never been alive • 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 • identify and name a variety of plants and animals in their habitats, including microhabitats • 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
Work scientifically for Y3 & Y4 **This concept involves learning the methodologies of the discipline of science** • Ask relevant questions. • Set up simple, practical enquiries and comparative and fair tests. • Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. • Gather, record, classify and present data in a variety of ways to help in answering questions. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. • Identify differences, similarities or changes related to simple, scientific ideas and processes. • Use straightforward, scientific evidence to answer questions or to support their findings.						
Y3		**Bones & Other Bits** **Animals, including humans** • identify that animals, including humans, need the right types and	**Extreme Earth** **Rocks** • compare and group together different kinds of rocks on the basis of their	**Magnificent Magnets (Science Week)** **Forces and magnets**	**I Can Grow** **Plants** • identify and describe the functions of different parts of flowering plants: roots,	

		amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • identify that humans and some other animals have skeletons and muscles for support, protection and movement **Shadowy Showpiece** **Light** • 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 an opaque object • find patterns in the way that the size of shadows changes	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 matt	• 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	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	
Y4			**Polluted Planet** **States of matter** • 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 (°C) • identify the part played by evaporation and	**Chew, Poo & You** **Animals, including humans** • 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 **Powerful Problems**	**What a Wonderful World** **Living things and their habitats** • 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 • recognise that environments can change and that this can	**Sound** **Sound** • 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 patterns between the volume of a sound and

			condensation in the water cycle and associate the rate of evaporation with temperature	Electricity • 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	sometimes pose dangers to living things	the strength of the vibrations that produced it • recognise that sounds get fainter as the distance from the sound source increases
Work scientifically for Y5 & Y6 **This concept involves learning the methodologies of the discipline of science** • Plan enquiries, including recognising and controlling variables where necessary. • Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work. • Take measurements, using a range of scientific equipment, with increasing accuracy and precision. • Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models. • Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions. • Present findings in written form, displays and other presentations. • Use test results to make predictions to set up further comparative and fair tests. • Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.						
Y5	**Incredible Inventions** **Properties and changes of materials** • compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity	**Fantastic Beasts** **Living things and their habitats** • 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	**Amazing Egyptians** **Forces** • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	**Vicious Vikings** **Forces** • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms including	**Are We Alone?** **Earth and space** • describe the movement of the Earth and other planets relative to the sun in the solar system	**Human Highways (Moved from Y6)** **Animals including humans** • identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

	(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 • demonstrate that dissolving, mixing and changes of state are reversible changes • 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 Pupils should be taught to: • describe the changes as humans develop to old age		levers, pulleys and gears allow a smaller force to have a greater effect	• 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	• 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
Y6		Fight or **flight** **Light** • 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		**Darwin's Discoveries** **Evolution and inheritance** • 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		**Trails & Treasure!** **Electricity** • 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 the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them		• identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution **Living things and their habitats** • 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		• use recognised symbols when representing a simple circuit in a diagram