SCIENCE

End Point measures EYFS to Y6

Topic Theme		End Points
EYFS	Understanding the World	• Explore the natural world around them, making observations and drawing pictures of animals and plants • 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 • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter
Year 1	Seasons	• To note the changes between the seasons • To observe and describe the weather associated with each season • To collect data to show how daylight lengths vary dependent on the season
	Animals including humans	• To identify, name and draw basic human body parts e.g. eyes, ears, nose, arms • To understand that senses are linked to different parts of the body e.g. nose and smell • To use senses to compare different textures, sounds and smells
	Materials	• Identify and describe the physical properties of a variety of every day materials • Compare and group materials based on their properties
	Animals	• Identify and name a variety of animals, including fish, amphibians, reptiles and mammals • Describe and compare the anatomy of common animals: fish, amphibians, reptiles, birds, mammals and pets) • Identify the characteristics of carnivores, herbivores and omnivores
	Plants	• To identify and name a variety of common garden plants, including deciduous and evergreen trees • To identify and describe the basic structure of a variety of flowering plants as well as trees
	Materials	• Identify and describe the physical properties of a variety of every day materials • Compare and group materials based on their properties • To be able to distinguish between an object and the material it is made of • To suggest reasons as to why a material would be suitable for an object to be made from • To use observations to prompt questions about different materials • To perform simple tests based on observations made about materials
Year 2	Living Things	• Classify things by living, dead or never lived • Know the basic stages of a life cycle of animals (including humans) • Use equipment such as thermometers to help observe changes to local environment over time
	Healthy Living	• Know why exercise, a balanced diet and good hygiene are important for humans • Know about and explain a simple food chain • Name several different food sources
	Properties of Materials	• Know why a material might or might not be used for a specific job • Group things according to a criteria, e.g. natural or man-made • Ask questions to investigate, e.g. which is the strongest?
	Changing Materials	• Know how materials can be changed by bending, twisting, stretching etc • Draw a conclusion and explain what has been found out

	Habitats	• Match living things to their habitat • Know how a specific habitat provides basic needs of the living things there • Ask questions such as, Why do some animals have underground habitats? • Use handheld lenses to find out more about small creatures and plants
	Plants	• Know and explain how seeds and bulbs grow into plants • Know what plants needs in order to grow and stay healthy (water, light, temp) • Know how to set up a fair test and do so to investigate how seeds grow best • Use measures to help find out more about the investigations they are engaged with.
Year 3	Rocks	• Compare and group rocks based on their appearance and properties • Know how soil is made and fossils are formed • Explain the difference between sedimentary, metamorphic, and igneous rocks
	Forces	• Describe how objects move on different surfaces • Explain how a pulley works and use one to lift and object • Explain why magnets attract and repel. Make predictions about whether they will attract or repel and explain why • Explain which forces require contact and which do not
	Plants	• Know how water is transported in plants • Explain the importance of flowers in plants • Know the plant life cycle
	Light	• Know that dark is the absence of light • Know that light is needed in order to see and is reflected from a surface • Know and demonstrate how a shadow is formed and explain how a shadow changes shape • Know about the danger of direct sunlight and describe how to keep protected
	Animals including humans	• Know why a nutritious, balanced diet is important for humans • Know how nutrients, water and oxygen are transported within animals • Know what the skeleton is what it's function is. Know what the muscular system is and how it works
	Plants	• Identify the parts of flowering plants and trees • Know the function of the different part of flowering plants and trees
Year 4	Electricity	• Identify and name appliances that require electricity to function • Construct a series circuit • Identify and name the components in a series circuit • Predict and test whether a bulb will light in a circuit • Know and explain the function of a switch • Explain the difference between conductors and insulators
	Sound	• Explain how sound is made, linking to vibrations • Explain how sounds travels from source to ear • Explain the correlation between pitch and the object producing sound • Explain the correlation between volume and strength of vibrations • Explain what happens to a sound as it travels away from source
	Changes of State	• Know the temperature that water changes state • Know and explore how some materials can change from solid to liquid or liquid to gas • Know the difference between evaporation and condensation and the part it plays in the water cycle • Group materials into solids, liquids and gases
	Human Nutrition	• Identify and name parts of the human digestive system: tongue, oesophagus, stomach, small intestine, large intestine, mouth

		• Know the functions of the organs in the digestive system: large intestine, small intestine, stomach • Identify and name the different types of human teeth: incisors, canines, premolars and molars • Know the different functions of incisors, canines, premolars and molars
	Livings Things	• To compare and contrast different living things based on their specific characteristics
	Dangers to Living Things	• Use food chains to identify producers, predators and prey and know their roles in the life cycle • Know how environmental factors endanger living things e.g. global warming, floods, deforestation
Year 5	Properties and changes in materials	• Compare and group objects based on their properties e.g. hardness, solubility, transparency, response to magnets • Know and explain how a material dissolves to form a solution • Know how you can recover a substance from a solution • Know and demonstrate how sieves, filter paper and evaporation can be used to separate materials • Know that some changes are reversible whilst others aren't and the reasons why • Know that some changes result in the formation of a new material and understand that these changes are often irreversible e.g. when you burn a material
	Forces	• Know that gravity is a force that pulls things towards earth • Know the effects of air and water resistance on the movement of an object • Identify that friction is a force and how it can be used to slow objects down e.g. grips on shoes • Explain how levers, gears and pulleys can allow a smaller force to have greater impact
	Earth and Space	• Know how earth orbits the sun on its axis • Know how the planets in our solar system orbit the sun • Know how the moon orbits the earth and the time it takes • Demonstrate how night and day are formed
	Living Things and their Habitats	• Know the life cycles of mammals, amphibians, insects and birds • Know that different living things have different life cycles • To understand how pollination leads to the reproduction of plants • To understand how different animals reproduce to produce offspring
	Animals including humans	• To understand the different stages of human life from birth to death • To create a timeline to indicate each stage of growth in humans: birth, childhood, puberty, adulthood, old age
Year 6	Light	• Know that light appears to travel in straight lines • Know and demonstrate how we see objects • To understand how shadows are formed and that they take the same shape as the object that cast them • To understand how an object's transparency affects its shadow • To know how objects can reflect and refract light
	Electricity	• To use the correct symbols to draw circuits • To know how voltage and amount of cells can affect components • To evaluate the effectiveness of a circuit

	Evolution	• To know how fossils can be used to find out about the past • To know how animals and plants are adapted to their environment • To recognise that offspring vary from their parents • To know how the planet has changed over time
	Living things	• Classify living things into broad groups based on their specific characteristics • To understand the reasons for classifying living things into groups • To give well informed reasons for the classification of plants and animals
	Our bodies	• To know how nutrients and water are transported through the human body • To know how to live a healthy life through exercise and a balanced diet and understand the dangers of drugs • To identify and name the human circulatory system: lungs, heart, aorta, bronchioles, ventricles, capillaries, blood vessels, veins • To know the function of the heart and the role it plays pumping blood around the body