

Swallowfield Science

Curriculum Overview

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	 'Marvellous Me' Identifying parts of the body 	 Human Body identify, name, draw and label parts of the human body five senses Seasonal Changes Changes in autumn Collect and record data 	 Humans Identify how humans grow Observe and understand that animals have babies Exploring the Frog and butterfly Lifecycle 	 Nutrition and Diet 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 identify that humans and some other animals have skeletons and muscles for support, protection and movement 	 Group and Classify Living Things Explore and research habitats Classify animals based on their characteristics Adaptation and classification within species Classify pond plants 	 Earth and Space Explore the solar system and its planets Understand the heliocentric model of the solar system Explain the Earth's movement in space Explain the Earth's rotation and night and day Explain the movement of the moon Design a planet 	 Living Things and Their Habitats Understanding conditions for life Group and classify organisms Classify animals and plants Carl Linnaeus study
Autumn 2	Seasonal Observations • Observing the weather, spotting seasonal changes	 Seasonal Changes Changes in winter Gather and record data Materials explore materials – wood, plastic, glass, metal and rock explore objects and materials melt and freeze float or sink does it absorb water? Investigate materials 	 Animals needs for survival Identifying the basic needs to survive Understand the importance of exercise and the impact it has on on humans and animals Understand the importance of keeping clean Explore healthy eating habits 	Rocks Soils and Fossils • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	 States of Matter Compare and group states of matter Explore how particles behave when manipulated Melting points, freezing and boiling points Evaporation, condensation, water cycle 	 Forces Explore Gravity and the work of Issac Newton Examine the connection between air resistance and parachutes Explore factors which affect water resistance Investigate the effect of friction on different surfaces Investigate mechanisms – levers, pulleys and gears 	 Electricity Explain the major discoveries in electricity Observe and explain the different volts in a circuit Understand how variations in how components function
Spring 1	 Just Imagine! Exploring space Growing - parts of a plant Exploring our natural world 	Planting Plant – winter Animals Birds Fish Amphibians Reptiles 	 Materials Identify uses of different materials Out and About Explore how materials can change shape when manipulated Important inventors 	 Fossils and Soils 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 	 Sound How sound is made through vibrations Vibrations and how they travel Understanding sound insulation 	 Properties of Materials Explore properties of materials Explore thermal conductors and insulators Explore the hardness of materials Discover materials that are soluble in water 	 Light Understand light sources Understand the different functions of parts of the eye

		 Compare and group animals Carnivores Herbivores Omnivores 			Exploring volume and pitch	 Investigate the solubility of materials Explore how mixtures can be separated 	 Identify that light travels in straight lines Understand light reflection Understand shadows
Spring 2	Around the World Investigating floating and sinking 	 Caring for the Planet Why is it important to care for our planet? How can we care for our planet? Seasonal Changes Changes in spring Collect and record data Planting Observe changes Plant - spring 	 Materials Understand the significance of Marie Curie's work. Build a Boat using different materials investigation (3 Lessons) 	 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 change 	 Electricity Being aware and understanding the dangers of electricity Create fully functioning circuits and understand how the electricity travels Knowing which are the best conductors and insulators 	 Changes of Materials Use evaporation to recover the solute from a solution Recognise and describe reversible changes Observe chemical reactions Investigate rusting reactions Investigate burning reactions Investigate chemical reactions – acids and bicarbonate of soda 	 The Circulatory System Understanding the circulatory system and the role the heart plays Describe the job of the blood and its vessels Understand how exercise has an impact on the body Discuss impact of drugs on the body's function
Summer 1	 Minibeasts Looking at habitats Seasonal changes Observations of plants and animals 	 Plants Plant and tree parts Wild and garden plants Plants in my local area Deciduous trees Evergreen trees Trees in my local area Planting Observe changes Plant - summer 	 Plants (Light and Dark) What do plants need to grow? Lifecycle of a plant What do plants need to stay alive? Cress investigation 	 Plants 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 	 Habitats and Conservation Human impact of deforestation and nature Water and air pollution 	 Living Things and Their Habitats Understand the life processes of plants Understand the life processes of animals Compare the life cycles of insects and amphibians Understand the life cycle of birds and reptiles Understand the importance of the work of Jane Goodall and David Attenborough 	Variations and Adaptations Understanding the concepts of: Darwinism Evolution Natural selection

	Dinosaurs	Growing and Cooking	Living things and their	Forces and Magnets	The Digestive	Animals Including	Fossils
Summer 2	 Different materials Contrasting environments 	 Where does my food come from? What have I planted and grown this year? Seasonal Changes Changes in summer Collect and record data What are the main changes in each season? 	 Identifying living and non-living things. Exploring local Habitats Identifying micro habitats Exploring world Habitats and the similarities and differences Understanding Food Chains including under the sea. 	 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 	 Labelling the digestive system and explaining its functions Exploring food chains and webs and explaining how animals survive Understanding the importance of teeth to our digestive system, and the impact sugar has on them. 	 Animals including Humans explain what gestation periods are for different animals, including humans. describe the changes as humans develop from fertilisation to birth. explain how babies grow and develop into children. describe and explain the main changes that occur during puberty. identify the changes that take place in late adulthood. 	 Explain how fossils are used to find the age of rocks Understand the importance of William Smith to the finding of fossils Understand how fossils have helped us develop a theory of evolution

Please note is subject to change.