The Wyche C of E Primary School Science Rolling Programme

This document sequences units of learning in a logical and structured way to allow progressive and cumulative acquisition of scientific knowledge. The outcomes are summarised but please refer to the National Curriculum for Science when planning initial units to allow maximum coverage and depth of understanding.

Band	Cycle	Plants	Animals	Ecosystems	Forces	Materials	Energy
1	A	Plant Identification	Animal Identification	Seasonal Changes		Materials Identification	
	B	Plant Growth	Animal Growth	Life & Living Together		Uses of Materials	
2	A	Botany	Eating & Digestion		Friction & Magnets	States of Matter	Sound
	B			Classification	Gravity & Resistance	Rocks & Soils	Electricity
	C		Diet, Muscles & Bones	Animal Life Cycles	Earth & Space		Light
3	A, B & C		Heart & Health Evolution & Inheritance	Advanced Classification		Changing States	Advanced Electricity Advanced Light

Year 1-2 Red and Yellow Class

Band	Cycle	Plants	Animals	Ecosystems	Forces	Materials	Energy
1	A	**Plant Identification** Identify and name a variety of plants Identify and describe the basic structure of plants	**Animal Identification** Types of animals and classes Carnivores, herbivores and omnivores The structure of animals Basic parts of the human body use of the senses	**Seasonal Changes** Changes across the four seasons Weather associated with the seasons How length of day varies		**Materials Identification** Distinguish between an object and the material it's made from. Identify and name a materials Describe compare and group properties of materials	
	B	**Plant Growth** How plants grow What plants need to grow	**Animal Growth** Offspring which grow into adults	**Life & Living Together** Living, dead, and never alive		**Uses of Materials**	

		and thrive	The basic needs of animals (water, food and air) Exercise, diet and hygiene	Habitats: what lives there and why Simple food chains and ecosystems		The suitability of a materials for particular uses attempt to change and manipulate different materials	

Year 3-5 Science Rolling Programme: Blue & Orange Class

Year A

Band	Cycle	Plants	Animals	Ecosystems	Forces	Materials	Energy
2	A	**Botany** Functions of different parts of flowering plants: Requirements for life and growth Water transportation in plants Plant life cycles	**Eating & Digestion** function digestive system in humans, types of teeth in humans and their functions, construct and interpret a variety of food chains, identifying producers, predators and prey.		**Friction & Magnets** Explore friction and contact Contrast friction and magnetism. Explore repulsion, attraction and magnetism of materials, identifying, sorting, predicting and grouping these. Describe magnets as having two poles.	**States of Matter** solids, liquids & gases, change of state when heated or cooled incl. measure or research the temperature in (°C), evaporation and condensation in the water cycle	**Sound** How sounds are made Vibrations reaching the brain through the ear via a medium Explore the pitch and volume of sounds based on their origins, position and strength.
	B			**Classification** Variously group identify and classify living things using keys. The risk posed to living things by environmental change.	**Gravity & Resistance** Gravity Air resistance Water resistance Friction The effect of mechanisms (gears, pullets, levers) on forces.	**Rocks & Soils** Compare and group different rocks by appearance and properties Describe simply how fossils are formed, Types, composition and formation of soils [Links to Evolution & Inheritance Band 3]	**Electricity** identify electrical appliances construct and problem solve with simple series circuits, using cells, wires, bulbs, switches and buzzers understand conductors and insulators

	C		**Diet, Muscles & Bones** Animal (and human) diet & nutrition. Humans and some animals muscular-skeletal systems	**Animal Life Cycles** Life cycles of mammals, birds, reptiles and insects. Reproduction in plants and non-human animals.	**Earth & Space** The solar system Earth & Moon Earth's rotation, night & day, and the sun's "movement".		**Light** Light's role in eyesight and dark as absence of light Reflection of light Dangers of sunlight Shadows

Year 6 Science Fixed Programme: Green Class

Band	Cycle	Plants	Animals	Ecosystems	Forces	Materials	Energy
3	A, B & C		**Heart & Health** Human circulatory system Drugs, toxins etc. Water & food transport and digestion. Human ageing. **Evolution & Inheritance** Change over time and fossil evidence Non-identical offspring through sexual reproduction including humans. Adaption to environment including theory of evolution.	**Advanced Classification** 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.		**Changing States** Compare and group materials on by a range of properties Solutions and dissolving Mixtures and separating Reversible and non-reversible change including the formation of new materials Further advanced uses and testing of materials	**Advanced Electricity** Variations in voltage and power. Variations in components and functions Using symbols in circuit diagrams **Advanced Light** Light travelling in a "straight line" and how sight works. Formation and properties of shadows.