ST PHILOMENA'S PRIMARY SCHOOL
SCIENCE MEDIUM TERM PLANNING YEAR 6
2026 - 2027

AUTUMN 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	LIVING THINGS AND THEIR HABITATS					
LESSON OUTLINE	Organising Organisms	The Animal Kingdom	Flora Field Guide	The Microscopic World	Microorganism Mystery	Linnaeus's Legacy
LEARNING OBJECTIVE	To classify living organisms into broad groups using observable characteristics.	To sort animals into classification groups and justify choices.	To use plant features to create a simple field identification guide.	To recognise that microorganisms include some living things too small to see unaided.	To investigate conditions that affect microorganisms in a safe practical enquiry.	To explain how Carl Linnaeus's classification work helps identify living things.
CURRICULUM LINKS	NC: classifying living things according to characteristics. WS: construct grouping rules.	NC: giving reasons for classifying animals. WS: classify and justify.	NC: giving reasons for classifying plants. WS: observe and record.	NC: classifying microorganisms, plants and animals. WS: research carefully.	NC: comparing microorganisms using evidence. WS: plan controlled observation.	NC: classification of living things using observed features. WS: explain and evaluate keys.
KEY KNOWLEDGE	• Organisms are classified according to similarities and differences. • Plants and animals contain many groups with distinguishing features. • Microorganisms include microscopic life forms such as some fungi and bacteria. • Classification keys use characteristics to identify organisms. • Carl Linnaeus helped develop a systematic way to name and group living things.					

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AUTUMN 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	ANIMALS, INCLUDING HUMANS					
LESSON OUTLINE	The Circulatory System	The Heart	Blood	Water and Nutrients	A Healthy Lifestyle + Drugs and Alcohol	Investigating Heart Rate
LEARNING OBJECTIVE	To identify the main parts of the circulatory system and explain circulation.	To explain the structure and pumping role of the heart.	To recognise the main components and functions of blood.	To describe how the circulatory system transports water and nutrients around the body.	To describe how exercise, diet, medicines and harmful substances can affect health.	To investigate the effects of exercise on pulse rate and record reliable measurements.
CURRICULUM LINKS	NC: identifying and naming main parts of circulatory system. WS: create and label models.	NC: describing functions of heart and blood vessels. WS: use scientific diagrams.	NC: identifying functions of blood. WS: compare information.	NC: transporting nutrients and water in humans. WS: model transport.	NC: impact of diet, exercise, drugs and lifestyle on body function. WS: use trusted sources.	NC: effect of exercise on the circulatory system. WS: fair test, measure and graph.
KEY KNOWLEDGE	• The heart pumps blood through blood vessels around the body. • Blood carries oxygen, nutrients and other substances. • The circulatory system helps transport nutrients and water. • Exercise, food and lifestyle influence how our bodies function. • Heart rate can be measured as a pulse and may rise during exercise.					

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SPRING 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	LIGHT					
LESSON OUTLINE	Where Does Light Come From?	How Do Eyes Work?	Mirrors and Reflections	Shaping Shadows	Seeing Colours	Key Scientists and Contributions
LEARNING OBJECTIVE	To describe light travelling in straight lines from its source.	To explain how reflected light enters our eyes so that we see objects.	To use the idea of straight-line travel to predict reflected light paths.	To investigate how shadows form and how their size and shape can change.	To investigate how white light and filters affect colours seen.	To explain how scientists have developed and tested ideas about light.
CURRICULUM LINKS	NC: light travels in straight lines. WS: use light ray diagrams.	NC: seeing because light travels from sources to our eyes. WS: model the eye safely.	NC: light reflected from objects to the eye. WS: predict and test paths.	NC: straight-line travel explains shadows. WS: fair-test shadow geometry.	NC: applying ideas about light; colour enrichment. WS: investigate colour patterns.	NC: development of scientific ideas about light. WS: evaluate evidence.
KEY KNOWLEDGE	• Light travels in straight lines. • We see objects when light from them or reflected from them enters our eyes. • Mirrors reflect light and can alter its direction. • Opaque objects can block light, forming shadows. • Observations and experiments have shaped explanations of light.					

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SPRING 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	ELECTRICITY					
LESSON OUTLINE	Electricity and Safety	Circuit Diagrams	Varied Voltage	Considering Components	Bright Sparks	Lightbulb Moment
LEARNING OBJECTIVE	To identify electrical hazards and construct simple circuits safely.	To draw simple circuit diagrams using recognised symbols.	To investigate the effect of adding cells on bulb brightness or buzzer loudness.	To investigate how switches and components affect a series circuit.	To design a controlled test about circuits and record findings.	To use circuit knowledge to design, construct and evaluate a working device.
CURRICULUM LINKS	NC: constructing simple series circuits safely. WS: observe and follow safety rules.	NC: recognising and using circuit symbols. WS: draw circuit symbols.	NC: associating bulb brightness or buzzer volume with number and voltage of cells. WS: fair test and record.	NC: comparing functions of components in circuits. WS: systematically compare.	NC: conducting controlled circuit investigations. WS: repeat test and graph.	NC: communicating circuits with symbols and evaluating outcomes. WS: design and evaluate.
KEY KNOWLEDGE	• Batteries supply electrical energy for simple circuits. • Standard symbols represent components in a circuit diagram. • Increasing the number or voltage of cells can change bulb brightness and buzzer loudness. • Switches open and close circuits. • Safe, repeatable tests help explain relationships between circuit components.					

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SUMMER 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	EVOLUTION AND INHERITANCE					
LESSON OUTLINE	Adaptation	Inheritance	Mutation and Natural Selection	The Fossil Record	Theories and Evidence for Evolution	Human Evolution
LEARNING OBJECTIVE	To explain how features can help organisms survive in particular environments.	To distinguish inherited characteristics from variation caused by environment.	To describe how variation may contribute to survival and change over generations.	To use fossil evidence to explain how living things have changed over time.	To explore how scientific evidence supports ideas about evolution.	To explain how the evolution of humans can be investigated using evidence.
CURRICULUM LINKS	NC: adaptation of plants and animals to suit environments. WS: compare adaptations.	NC: inheritance and variation in offspring. WS: sort traits.	NC: adaptation and the idea that species evolve. WS: model selection carefully.	NC: fossils providing information about past living things. WS: interpret fossil records.	NC: changes in living things over time; evidence for evolution. WS: evaluate examples of evidence.	NC: evolution and inheritance; scientific evidence. WS: explain with sources.
KEY KNOWLEDGE	• Offspring often resemble their parents but can vary. • Adaptations are inherited characteristics that may help survival. • Populations can change gradually across many generations. • Fossils reveal evidence about organisms from the past. • Evolution is supported by several types of scientific evidence.					

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SUMMER 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
UNIT	CHANGING CLIMATE · TWINKL ENRICHMENT					
LESSON OUTLINE	Weather and Climate	Evidence for Climate Change	Emissions and Sustainable Travel	Adaptations of Living Things	Greener Energy	Active Citizens
LEARNING OBJECTIVE	To distinguish daily weather from long-term climate.	To interpret evidence showing that the global climate is changing.	To explain how travel choices can affect greenhouse gas emissions.	To describe ways a changing climate can affect living things and habitats.	To compare energy sources and discuss environmental impacts.	To use evidence to propose and present ways a community can reduce its impact.
CURRICULUM LINKS	NC link: enrichment: applying observations and data. WS: interpret observations.	NC link: enrichment: scientific evidence and data interpretation. WS: read charts and evidence.	NC link: enrichment: environmental impacts. WS: compare data.	NC link: evolution, adaptation and environmental change. WS: examine adaptation examples.	NC link: enrichment: comparing energy technologies. WS: evaluate evidence.	NC link: enrichment: scientific evidence and communication. WS: propose and communicate actions.
KEY KNOWLEDGE	• Weather describes short-term atmospheric conditions; climate describes long-term patterns. • Global climate has changed over time and is changing rapidly today. • Greenhouse gases influence Earth's temperature. • Environmental changes affect where and how organisms live. • Scientific data can guide practical action to reduce environmental impact.					