



Year Five: Sherwood Class					
Autumn		Spring		Summer	
Forces in Action (PB) N.C. Y5 PoS	Evolution & Inheritance (PB) N.C. Y5 PoS	Investigating Materials & their properties (Gr) N.C. Y5 PoS	Space (PB) N.C. Y5 PoS	Life Cycles inc. Plants (PB) N.C. Y5 PoS	Healthy Bodies (PB) N.C. Y5 PoS
Key Vocabulary Gravity, falling, mass, height, shape, weight, friction, resistance, air resistance, pulley, lever, transmission, gear	Key Vocabulary Offspring, adaptation, evolution, suit, Darwin, variations, environment, evolve, develop, generation, adapt, advantageous adaptations	Key Vocabulary Solid, liquid, gas, reversible, irreversible, cooling, heating, solution, separate, combine, evaporate, filter, sieve, mixture, reactions, magnetic, flexible, burning, oxidation, hardness, solubility, conductivity	Key Vocabulary Rotate, spherical, day, night, moon phases, seasons, solar system, planets, hemisphere, orbit, geocentric, heliocentric	Key Vocabulary Reproduction, asexual, sexual, reproduce, gestation period, species, environment, eggs, reptiles, amphibians, seed dispersal, pollination, germination, mammal	Key Vocabulary Food, diet, nutrient, balanced, healthy, nutrients, muscles, medicines, heart rate, tobacco, alcohol, drugs, harmful, side-effects, exercise, circulatory system, lifestyle

Scientific Knowledge to be covered throughout the year				
Term	Disciplinary Knowledge	Biology	Chemistry	Physics
Autumn 1: Forces in Action	<u>Comparative and fair testing</u> <ul style="list-style-type: none"> Y5: Know that some variables need to be controlled. Y5: Know that results can lead to further prediction and the design of further comparative tests. Y5: Know that methods can be improved. <u>Identifying and classifying</u>			<ul style="list-style-type: none"> Know and describe magnets as having two poles. Know and predict whether two magnets will attract or repel each other, depending on which poles are facing. Know and explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Know the effect of drag forces, such as air resistance, water resistance



	<ul style="list-style-type: none"> • Y5: Know that dichotomous classification models can be used to sort living and non-living things. <p>Gathering and recording</p> <ul style="list-style-type: none"> • Y5: Know that causal relationships can be identified. • Y5: Know that data can be interpreted to find patterns. • Y5: Know that data can be gathered, recorded, classified and presented in a variety of ways which include scientific diagrams, labels, keys, graphs and tables. 			<p>and friction that act between moving surfaces.</p> <ul style="list-style-type: none"> • <i>Know, in terms of drag forces, why moving objects that are not driven tend to slow down.</i> • <i>Know that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.</i> • Know that some mechanisms including levers, pulleys and gears, allow a smaller force to have a greater effect.
<p>Autumn 2: Evolution & Inheritance</p>	<ul style="list-style-type: none"> • Y5: Know that repeated and precise recordings must be taken. 		<ul style="list-style-type: none"> • Know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • Know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. • Know and identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. • <i>Know and relate knowledge of plants to studies of evolution and inheritance.</i> 	
<p>Spring 1: Investigating Materials & their properties</p>			<ul style="list-style-type: none"> • Know, compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, 	



ST. LUKE'S SCIENCE
Year Five



			<p>solubility, conductivity (electrical and thermal), and response to magnets.</p> <ul style="list-style-type: none">• Know how 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.• Know and explain, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.• Know and demonstrate that dissolving, mixing and changes of state are reversible changes.• Know and 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, oxidisation and the action of acid on bicarbonate of soda.	
<p>Spring 2: Space</p>				<ul style="list-style-type: none">• <i>Know and describe the movement of the Earth relative to the Sun in the solar system.</i>• <i>Know and describe the movement of the Moon relative to the Earth.</i>• Know and describe the movement of the Earth, and other planets, relative to the Sun in the solar system.• Know and describe the movement of the Moon relative to the Earth.



ST. LUKE'S SCIENCE
Year Five



				<ul style="list-style-type: none">• Know and describe the Sun, Earth and Moon as approximately spherical bodies.• Know and understand the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.
Summer 1: Life Cycles inc. Plants		<p>Know and describe how living things are classified into broad groups according to common observable characteristics.</p> <ul style="list-style-type: none">• Know and reason for classifying plants and animals based on specific characteristics.		
Summer 2: Healthy Bodies		<ul style="list-style-type: none">• Know the importance of diet, exercise, drugs and lifestyle on the way the human body functions.• Know and describe the ways in which nutrients and water are transported within animals, including humans.• Know and describe the changes as humans develop to old age.		