









Year 5

Year 5			
Topic 1	Topic 2	Topic 3	Topic 4
 <p>Human Reproduction and Ageing</p>	 <p>Forces and Mechanisms</p>	 <p>Earth and Space</p>	 <p>Properties and Changes of Materials</p>
Defining Frame	Defining Frame	Defining Frame	Defining Frame
Introduction lesson – Life Cycle Vocabulary	Introduction lesson – Contact and non-contact forces	Introduction lesson – The Solar System	Introduction lesson – Properties of Materials
Animal life cycles	Gravity	How do we know that the Sun is at the centre of the Solar System?	Testing properties
Classifying mammals	Mass and weight	The Earth, Sun and Moon model	Thermal conductivity
Typical mammalian life cycles	Friction	Planets and stars are spherical	Testing thermal insulators
Relationship between mammalian gestation and mass	Air resistance	Daytime and night time	Testing thermal insulators
Human life cycle	Water resistance	Sundials	Solubility

Human gestation stage	Levers, Pulleys and Gears	Day length and seasons Times of day around the world	Exploring mixtures – sieving
Human juvenile stage	<p>Investigation focus: questioning,</p> <p><u>Example questions: How are friction and air resistance lowered in racing cars? How do skiers reduce friction? Which materials make the best parachutes?</u></p>	The phases of the Moon	Exploring mixtures – filtering
Human adolescent stage	<p>Investigation focus: observing, measuring and recording</p> <p><u>Example questions - Why do bike tyres have a tread pattern? Which tyre would you choose if you wanted to cycle fast on a smooth road?</u></p> <p>Step 1 – recording Step 2 – investigating and measuring Step 3 - questioning Step 4 –observing Step 5 – recording</p>	Lunar and Solar eclipses	Reversible and irreversible changes
Human growth charts – Breadth and depth	Assessment and reflection	<p>Investigation focus: research</p> <p><u>What have scientists discovered about planets so far?</u></p> <p>Step 1 – planet study Step 2 – investigate Step 3 - investigate Step 4 –research Step 5 – research Step 6 – present</p>	<p>Investigation focus: planning and carrying out</p> <p><u>Example questions - How much salt can be dissolved in 100ml of water? Is the saturation point different if the solvent is hot or cold? How much quicker does caster sugar dissolve than granulated sugar or a sugar lump?</u></p> <p>Step 1 – plan Step 2 – investigation and observation Step 3 - measurement</p>

			Step 4 – gather and record data Step 5 – report and conclude
Human sexual reproduction		Assessment and reflection	Assessment and reflection
Human adult ageing			
Assessment and reflection			

Year 6

Year 6			
Topic 1	Topic 2	Topic 3	Topic 4
 <p>Light Theory</p>	 <p>Evolution and Inheritance</p>	 <p>Electric Circuits and Components</p>	 <p>Circulatory System</p>
<p>Defining Frame</p> <p>Introduction lesson - How does light travel?</p>	<p>Defining Frame</p> <p>Introduction lesson – Five Kingdoms</p>	<p>Defining Frame</p> <p>Introduction lesson - Naming circuit components</p>	<p>Defining Frame</p> <p>Introduction lesson – Bodily Systems</p>
<p>How do we see?</p>	<p>Classifying fossils</p>	<p>Recognised circuit symbols</p>	<p>Role of the circulatory system</p>
<p>Visible light</p>	<p>Theory of evolution</p>	<p>Recording circuits</p>	<p>Structure and function of the heart</p>
<p>Colour perception</p>	<p>Inheritance</p>	<p>Exploring circuit components</p>	<p>The function of blood</p>
<p>Shadows</p>	<p>Natural selection and survival of the fittest</p>	<p>Voltage and cells</p>	<p>The structure and function of blood vessels</p>

Reflections	Exploring plant adaptations	Researching batteries and cells – Breadth and depth	Measuring heart rate
Measuring light	Artificial Selection	<p>Investigation focus: planning and carrying out</p> <p>Investigating voltage</p> <p><u>How does the voltage across a circuit affects the brightness of a lamp?</u></p> <p>Step 1 – plan and carry out Step 2 – collect data Step 3 - conclude and present</p>	Proving a hypothesis
Refraction	<p>Investigation focus: observing, measuring and recording</p> <p><u>Can you generate a testable hypothesis?</u> <u>E.g. females are taller than males</u></p> <p>Step 1 – investigating and questioning Step 2 – measurement Step 3 - gather and record data Step 4 – report and conclude Step 5 – report, conclude and question</p>	Programming tasks	Heart rate investigation
<p>Investigation focus: planning and carrying out</p> <p><u>Example questions: How much light is absorbed by different materials? Do all shiny materials reflect light? Does crunched foil reflect as much light as flat foil?</u></p> <p>Step 1 – planning Step 2 – plan and carry out Step 3 - measurement and observation</p>		Sensors and monitoring	Classifying foods

<p>Step 4 – gather and record data Step 5 – report and conclude</p>			
<p>Assessment and reflection</p>	<p>Assessment and reflection</p>	<p>Assessment and reflection</p>	<p>The effects of smoking, alcohol and drugs</p> <hr/> <p>Investigation focus: reporting and concluding</p> <p>Example questions- <u>Does drinking water after exercise affect my HRR?</u> <u>Does my resting position after exercise affect my HRR?</u> <u>Does age affect the HRR?</u></p> <p>Step 1 – questioning Step 2 – investigating and observation Step 3 - measurement Step 4 – gather and record data Step 5 – report and conclude</p> <hr/> <p>Assessment and reflection</p>