

# SCIENCE LONG TERM PLAN UKS2 - 2 year programme

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<u>Decaying and recycling</u>	<u>Life cycles</u>	<u>Earth and space</u>	<u>Mixtures and reactions</u>	<u>Human development</u>	<u>Forces</u>
First Year - Key skills						
Y 5	<ul style="list-style-type: none"> <li>Describe the process of decay and its usefulness</li> <li>Identify materials that will decay</li> <li>Plan a scientific enquiry to find decay times of common materials, recognising and controlling variables</li> <li>Record findings and estimate degree of trust in results</li> <li>From investigation, estimate the time needed for some common materials from litter to decay</li> <li>Know that some materials can be recycled into useful new materials</li> </ul>	<ul style="list-style-type: none"> <li>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>describe the life process of reproduction in some plants and animals</li> </ul>	<ul style="list-style-type: none"> <li>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</li> <li>Describe the movement of the Moon relative to the Earth</li> <li>Describe the Sun, Earth and Moon as approximately spherical bodies</li> <li>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul>	<ul style="list-style-type: none"> <li>compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</li> <li>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</li> <li>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</li> <li>demonstrate that dissolving, mixing and changes of state are reversible changes</li> <li>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 and the action of acid on bicarbonate of soda.</li> </ul>	Describe the physical changes that take place in the human body during puberty	<ul style="list-style-type: none"> <li>explain unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>identify the effects of air resistance, water resistance and friction, that act that between moving surfaces</li> <li>recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>

## SCIENCE LONG TERM PLAN LKS2 - 2 year programme

Second Year - Key skills	
1	Identify the key components of a business plan and understand their importance.
2	Develop a marketing strategy for a new product or service.
3	Conduct a financial analysis of a company's performance.
4	Design a human resources management system for a small business.
5	Implement a quality management system in a manufacturing environment.
6	Develop a project management plan for a large-scale project.
7	Conduct a risk assessment for a new investment opportunity.
8	Design a supply chain management system for a global company.
9	Implement a change management process in an organization.
10	Develop a business case for a new technology investment.
11	Conduct a competitive analysis for a new market entry.
12	Design a customer relationship management system for a retail company.
13	Implement a sustainability management system in a manufacturing company.
14	Develop a strategic plan for a non-profit organization.
15	Conduct a feasibility study for a new business venture.
16	Design a project management system for a construction company.
17	Implement a risk management system in a financial institution.
18	Develop a business plan for a new startup.
19	Conduct a market research for a new product launch.
20	Design a human resources management system for a large corporation.
21	Implement a quality management system in a service industry.
22	Develop a project management plan for a software development project.
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100	Design a human resources management system for a large corporation.

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	<u>Field studies</u>	<u>Heart and lungs</u>	<u>Classification</u>	<u>Electricity</u>	<u>Light</u>	<u>Evolution</u>
Y 6	<ul style="list-style-type: none"> <li>Use and evaluate some sampling techniques for environmental field work</li> <li>Compare populations of living things during the course of the year</li> <li>Provide reasons for the changes in population during the year</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood</li> <li>recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> <li>describe the ways in which nutrients and water are transported within animals, including humans.</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>Give reasons for classifying plants and animals based on specific characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</li> <li>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</li> <li>Use recognised symbols when representing a simple circuit in a diagram.</li> </ul>	<ul style="list-style-type: none"> <li>understand that light appears to travel in straight lines</li> <li>use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</li> <li>explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</li> <li>use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes.</li> </ul>	<ul style="list-style-type: none"> <li>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</li> <li>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</li> <li>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>
<b>Resources needed</b>						

