

Year 8 Science Learning Programme*

TERM	TERM DATES	AREA OF SCIENCE	TOPICS
Spring	Spring Term 1 Starts: Saturday 15 January 2022 Ends: Saturday 12 February 2022 Total: five sessions	Biology	<ul style="list-style-type: none"> Compare and contrast the structure and function of different cells and cell organelles Explain the process of photosynthesis and state the adaptations of leaves for photosynthesis Compare aerobic with anaerobic respiration in living organisms in terms of their purpose, reactants and products formed Explain what inheritance is as well as the role of chromosomes, DNA and genes
	Spring Term 2 Starts: Saturday 26 February 2022 Ends: Saturday 26 March 2022 Total: five sessions	Chemistry	<ul style="list-style-type: none"> Recall chemical symbols and formulae for different elements and compounds and use these to represent chemical reactions Describe the different reactions that take place with acids Explain the energetics of different reactions including energy changes, exothermic reactions and endothermic reactions Understand and apply knowledge of the reactivity series and the use of carbon to extract metals from metal oxides
Summer	Summer Term 1 Starts: Saturday 23 April 2022 Ends: Saturday 21 May 2022 Total: five sessions	Physics	<ul style="list-style-type: none"> Calculate different fuel uses and costs. For instance, energy values of different foods, power rating, fuel bills and costs Calculate pressure as force over area and understand how atmospheric and pressure in liquids changes with increasing altitude or depth Identify the features of a sound wave and explain how the speed of sound changes according to the medium it travels through Explain the properties of light including that it can travel through a vacuum, it can be absorbed or reflected and is composed of different colours
	Summer Term 2 Starts: Saturday 11 June 2022 Ends: Saturday 9 July 2022 Total: five sessions	Science Skills	<ul style="list-style-type: none"> Understand and use standard index (SI) units, standard form and correct chemical nomenclature Conduct basic data analysis including simple statistics Present observations and data using tables and graphs and interpret results Evaluate data to show an awareness of potential errors, specifically random and systematic errors

*Topics, dates, and locations are subject to change without prior notice. Topics are intended for guidance only.