

Long Term Plan Year 8 Science

W/C	6 th September	10 th September	17 th September	24 th September	1 st October	8 th October	15 th October	HALF TERM	31 st October	5 th November	12 th November	
	Working Scientifically	Working Scientifically	The Periodic Table	The Periodic Table	Test and Review	Health and Lifestyle B2.1	Health and Lifestyle B2.1			Test and Review	Motion and Pressure	Motion and Pressure
	Introduction to science Understand Health and Safety and risk assessment including First Aid. Apparatus and How to use a Bunsen Burner		Predict the properties of an element, given its position on the Periodic Table. Explain how the position of an element can be used to suggest properties of elements. Compare predictions with evidence, and from reactions involving Group 1 elements. Write word equations to represent displacement reactions. link information about Group 0 elements to their properties.			Explain what makes a food a healthy option and how each nutrient contributes to a healthy, balanced diet. Explain why testing food for starch, lipids, sugar, and protein is important and the meaning of positive or negative results in terms of the food tests. Explain that different people require different amounts of energy, using energy calculations and data to support my explanations and explain how each part of the digestive system works in sequence, including adaptations of the small intestine for its function. Explain how enzymes and Bacteria affect the rate of digestion. Explain how recreational drugs can have a negative effect on people's lifestyles, explain in detail how alcohol affects health and behaviour, detailing its effect on life processes, explain how smoking causes disease and chemicals in tobacco smoke affect the development of a fetus.			Use the speed equation to explain unfamiliar situations. draw and analysed distance–time graphs for a range of journey. Explain gas pressure in different situations, compare some effects of atmospheric pressure, explain why an object will float or sink in terms of force or density. calculate pressure in multistep problems, compare pressure in different situations, explaining the differences in pressure using scientific knowledge, apply the concept of moments to everyday situations. Use calculations to explain situations involving moments.			
W/C	19 st November	26 th November	3 rd December	10 th December	CHRISTMAS	4 th January	7 th January	14 th January	21 st January	28 th January	4 th February	11 th February
	Separation Techniques	Separation Techniques	Test and Review	Adaptation and Inheritance			Test and Review	Electricity and Magnetism	Electricity and Magnetism	Test and Review	Metals and Acids	Metals and Acids
	Comment on a substance's purity by interpreting temperature change data. Explain the relationship between solutes, solvents, and solutions. draw particle diagrams to represent solutions and pure substances. Explain why temperature affects the amount of solute dissolved in a solution. Use particle diagrams to illustrate how filtering works. explain how chromatography can be used in different scenarios.			Explain how competition or long-term environmental change can lead to evolutionary adaptation or extinction. Explain how variation gives rise to different species and explain how competition or long-term environmental change can lead to evolutionary adaptation or extinction. Explain that some variation is affected by both environmental and inherited factors and the causes of continuous and discontinuous variation, represent variation within a species using the appropriate type of graph. Explain how characteristics are inherited through and coded for by genes and how natural selection leads to evolution and explain some factors that may have led to extinction.			Explain, in terms of electrons, why something becomes charged. Compare a gravitational field and an electric field. Use a model to explain how current flows in a circuit. Explain the difference between potential difference and current. Explain why potential difference is measured in parallel. Predict the effect of changing the rating of a battery or bulb in a circuit. Explain why current and potential difference vary in series and parallel circuits. explain what factors affect the resistance of a resistor. Explain how magnets can be used. Predict and explain the effect of changes on the strength of different electromagnets			Use formula equations to show what happens when metals react in different acids. Explain the reactivity of metals according to how they react with oxygen.		

