Long Term Plan Year 7 Science

Chichester Free School
Nurture • Challenge • Inspire

W/C	6th September	10th September	17th September	24th September	1st October	8th October	15th October	HALF TERM	31st October	5th November	12th November
	Working Scientifically	**Working Scientifically**	**Particles**	**Particles**	**Test and Review**	**Cells**	**Test and Review**		**Forces**	**Forces**	Test and Review
	Introduction to science Understand Health and Safety and risk assessment, including First Aid. Apparatus and How to use a Bunsen Burner		Use particle model to explain properties of substances and the three states of matter. Use particle model to explain change of state, melting and freezing, boiling and melting points, diffusion and pressure.			Explain and describe the similarities and differences of plant and animal cells. Link structure and function of specialist cells. Calculate magnification and use a microscope. Describe unicellular organisms			Explain which pairs of forces are acting on an object. Apply Hooke's Law to make quantitative predictions with unfamiliar materials. Explain how the effect of gravity changes moving away from Earth and why the speed or direction of motion of objects can change using force arrows.		

W/C	19st November	26th November	3rd December	10th December	CHRISTMAS	4th January	7th January	14th January	21st January	28th January	4th February	11th February
	Elements, Atoms and Compounds	**Elements, Atoms and Compounds**	**Test and Review**	**Structure and Function of Body**		**Structure and Function of Body**	**Test and Review**	**Sound**	**Sound**	**Test and Review**	**Chemical Reactions**	**Chemical Reactions**
	Use properties to determine use, explain the difference between elements/compound. Use particles diagrams to explain why compounds have different properties than original elements. Calculate mass			**Link structure and function**		Explain in detail the hierarchy of organisation in a multicellular organism, describe and explain inhaling/exhaling, measure lung volume and interpret data. Link structure and function of skeleton tissue and joints		compare the properties of waves and their features, describe sound as the transfer of energy through vibrations and explain why sound cannot travel through a vacuum. explain how parts of the ear transfer vibrations, compare and contrast waves of different frequency using a diagram.			Explain the difference between chemical and physical changes	

W/C	HALF TERM	25th February	4th March	11th March	18th March	25th March	1st April	EASTER	24th April	29th April	6th May
		Test and Review	**Reproduction**	**Reproduction**	**Test and Review**	**Light**	**Light**		**Test and Review**	*REVISION*	
		Construct formula equations from word equations. Write a formula equation for decomposition. Use conservation of mass to predict. understand exo/endothermi	Explain fertilisation and the role of pollination in plants. **Explain the function of male and female reproductive organs**				Compare a simple camera with the eye. Predict how coloured objects will appear given different coloured lights and filters. Predict the path of light using a model of light refraction. apply the concept of specular reflection and diffuse scattering to models and other examples.				

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		c reactions are energy change								
W/C	13th May	20th May	HALF TERM	3rd June	10th June	17th June	24th June	1st July	8th July	
	Exams	Exams		Exam review	**Acids and Alkalis**	**Acids and Alkalis**	Space	Space	Presentation	
					Explain the difference between an acid and an alkali, use particles to explain concentration and dilution, explain neutralisation, interpret graphs of pH, write formula during salt production		use the speed of light to describe distances between astronomical objects. Describe the structure of the Universe in detail, in order of size and of distance away from the Earth. Explain how the properties and features of planets are linked to their place in the Solar System. Predict the effect of the Earth's tilt on temperature and day-length. Explain why it is possible to see an eclipse on some of the planets in the Solar System but not others.		