Subject:	KS3 Science	Year: 8	Ability: All

Dates	Half term 1			Half term 2	
Topic	The Periodic Table	Elements and Compounds	Contact Forces	Pressure	Breathing
Topic overview **Students will learn…**	Students will learn how elements are arranged on the periodic table based on their properties.	Students will learn that elements and their compounds have differing properties.	Students will learn the effects on forces on objects.	Students will learn about pressure in solids, liquids and gases.	How oxygen is brought into the body and subsequently moves into cells and how carbon dioxide is removed. To investigate a link between height and lung volume. To evaluate the effects of health and disease on lung function.

Dates	Half term 2	Half term 3		Half term 4	
Topic	Digestion	Chemical Energy	Types of reaction	Work	Heating and cooling
Topic overview **Students will learn…**	That the body needs a balanced diet to maintain a healthy life. How the organs of the digestive system work together to break down and then absorb useful nutrients from food. To calculate food requirements of different people using information provided.	To use experimental observations to distinguish exothermic and endothermic reactions and to use a diagram of relative energy levels of particles to explain energy changes observed during a change of state.	Students will learn that mass is conserved over a range of different reactions.	How forces moving on an object is the work done.	Students will learn the effect of mass and temperature on an object's thermal energy

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Dates	Half term 4&5		Half term 5		
Topic	Respiration 2	Photosynthesis 2	Magnetism	Electromagnets	Wave properties
Topic overview **Students will learn…**	To use word equations to describe anaerobic respiration. To explain how specific activities involve aerobic or anaerobic respiration.	Describe ways in which plants obtain resources for photosynthesis. Explain why other organisms are dependent on photosynthesis.	The effects of magnetism and magnetic fields.	The principles of using the magnetic field around a wire to produce an electromagnet.	Understanding the physical model of a transverse wave.

Dates	Half term 6				
Topic	Wave effects	Evolution	Inheritance	Earth's resources	Climate
Topic overview **Students will learn…**	How energy is transferred as a wave through a substance.	Natural selection is a theory that explains how species evolve and why extinction occurs. Biodiversity is vital to maintaining populations.	To understand the inherited characteristics are the result of genetic information (genes) being transferred from parents to offspring during reproduction. Chromosomes are long piece of DNA which may contain many genes. Gametes, carrying half the number of chromosomes of each parent.	To understand where raw materials come from in the earth, how these are extracted and recycled.	Recall examples of greenhouse gases. Explain the greenhouse effect. Define climate change and describe the consequences of global warming. How carbon is recycled through the environment.