



## Curriculum Map: Year 8 Science

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
<b>Topic</b>	<b>Nutrition, Health and Disease</b>	<b>Bonding and Patterns of Reactivity</b>	<b>Electricity</b>	<b>Photosynthesis and Respiration</b>	<b>Earth structure and Atmosphere</b>	<b>Magnetism</b>
<b>Intent</b>	Learn key knowledge about maintaining a healthy lifestyle and how diseases can be affected by lifestyle choices, which can differ depending on the area of the world you are in.	Learn key knowledge about how substances are formed based on knowledge built from the atom.	Learn key knowledge about electricity - identify components of an electrical circuit and the know the difference between series and parallel circuits.	Learn key knowledge about how plants make their own food. Students explore the respiratory system and the impact of exercise and asthma on the human gas exchange system.	Learn key knowledge about the structure of the Earth and how people could change their lifestyles to reduce their impact on the environment e.g. carbon footprint.	Learn key knowledge about what magnets are and link this how compasses /electromagnets work.
<b>Key Knowledge</b>	1.What constitutes a balanced diet and the function of the digestive system. 2.How the human reproductive system works. 3.Fertilisation happens when a sperm cell fuses with an egg cell. 4.Smoking and alcohol can increase the risk of getting cancer.	1.Elements can be metals or non-metals and react with other substances to form compounds. 2.Metals react with acids to form a salt and hydrogen gas. 3.The reactivity of metals affects the rate of its reaction with an acid. 4.Metals react with oxygen to form oxides.	1.Recall terms- current, voltage and resistance in electric circuits. 2.Current must flow for an electric circuit to work, and that resistance is a feature of circuits which reduces the current flowing. 3.Series circuit- current stays the same. 4.Parallel circuit- current is shared.	1.The process of Photosynthesis and Respiration 2.Glucose in the blood comes from digestion of food we eat. 3.Carbon dioxide is released into the blood and goes back to the lungs in veins to be breathed out.	1. Earth structure. 2. How the early atmosphere evolved over time and the human impact on Earth. 3. Earth's atmosphere is mostly nitrogen, about one fifth oxygen and a tiny amount of carbon dioxide. 4. Human activities such as burning fossil fuels are causing the amount of carbon dioxide to increase.	1.How magnets and electromagnets work. 2. There are 2 poles in a magnet, the North and the South. 3. Opposite poles of a magnet will attract, and the same poles will repel. 3. Currents can create magnetic fields and that the strength of the magnetic field can be increased by a number of factors.



<b>End Point</b>	Students will be able to access and complete exam style questions to demonstrate their learning in digestive system.	Students are competent in answering structured and longer response exam style questions. Able to structure explanations. Required Practical 2	Students are competent in answering structured and longer response exam style questions. Students can plot and analyse line graphs.	Students are competent in answering structured and longer response exam style questions.	Students are competent in answering structured and longer response exam style questions.	Students are competent in answering structured and longer response exam style questions. Group presentations.
<b>Form of Assessment</b>	Topic assessment Extended writing tasks	Topic assessment Extended writing tasks	Topic assessment Mock style assessment	Topic assessment Extended writing tasks	Topic assessment Mock style assessment Extended writing tasks	Topic assessment Extended writing tasks
<b>Enrichment Opportunities</b>	Some opportunities to take part in STEM activities/ projects.					
<b>Leadership Opportunities</b>	Student helper to support other students especially in required practicals. Student example to demonstrate good quality work.					



**AMBITION**



**RESILIENCE**



**COURTESY**



**KINDNESS**