Year 8 Curriculum Map
Science

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Learning	Working scientifically through enquiry.	From little you, to bigger you!	How do we see? How do we hear? The importance of metals.	Force, power, or energy – which word to use and when.	Built to survive!	Applications of working scientifically through enquiry.
Unit Focus	Laboratory and investigative skills. Elements & the Periodic table.	Reproduction & variation.	Sound & light energy. Metals & non-metals.	Work & energy transfer.	Breathing & respiration. Digestion & healthy eating.	Separating mixtures. Electricity & resistance.
Key Knowledge	Practical skills. Safety & managing risks. Producing valid results. Constructing graphs. Conclusion & evaluations. Atomic structure. Organisation of elements & their reactions/properties.	Puberty & responsible response to changes. Reproductive organ systems. Healthy pregnancy. Investigating different characteristics.	Sound waves. Structure of the ear. Investigating reflection & refraction of light. Chemical reactions with metals & non-metals.	Calculating work done. Conduction, convection & radiation. Investigation rate of heat transfer.	Structure & function of the respiratory and digestive systems. Testing samples for major food groups.	Using physical separation techniques. Measuring current and voltage. Calculating resistance.
SMSC	Discovering the limits of experimentation.	Questions of beginning: creationism versus evolution? Birth, life, death, and renewal.	Impact of quarrying on the environment.	Regularity and the order of science. The impact of scientific achievements (Newton's laws).	How can you maintain a healthy lifestyle?	Discovering the limits of experimentation.
Experiences/CEIAG	Skills needed to work in a scientific laboratory.	Forensic science investigations. Midwifery.	Industry: extraction of metals from ores.	Carbon footprint: reduce, reuse, and recycle.	Balanced diet for teenagers. Risks associated with smoking and 'vaping'.	Laboratories from the food industry. Application of resistance in cars.
Examples of how you can help your child at home	Home baking/cooking – how to follow a recipe.	Discussing similar characteristics across the family tree.	Making a pinhole camera/telescope.	Exploring items form the home that have insulation as a safety application and methods of how to reduce heat loss from the home.	Keeping a food diary.	Knowledge of how to rewire a domestic electrical plug.