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| **Year 8** | **Curriculum Aims**: 1) Enthuse and inspire students by linking science to culture and everyday experience. 2) Engage students with science through personalising, localising and making science relevant and meaningful. 3): Develop foundation knowledge and begin to apply this to unfamiliar situations. 4) Develop practical skills, graphical and data analysis skills, scientific numeracy and literacy. 5) Embed the UN ‘sustainable development goals’ as a SOW driver. |

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| **Topic 8.1 Looking at Plants and Animals**  **Context: SDG 14 and 14 Life on land, Life below water**  **Knowledge:** Photosynthesis, Biodiversity, interdependence  **Prior learning:** functions of parts of plants (reproduction & transport); construct and interpret food chains, Explain how environmental changes impact living things. | | | | **Topic 8.2 Explaining Chemical Change**  **Context: SDG 8 Responsible production and consumption**  **Knowledge:** acids, indicator, alkalis and neutralisation  **Prior learning:** changes can result in new materials e.g. action of acid on bicarbonate of soda | | | |
| **Attitudes and Skills (TENSILE) Literacy and Expression** | | | | **Attitudes and Skills (TENSILE) Solving problems, independence** | | | |
| **Assess:** 1 assessed mid unit task. End of topic test | | | | 8**Assess**: 1 assessed mid unit task. End of topic test | | | |

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| **Topic 8.3 Motion On Earth and Space**  **Context: SDG 17 Partnerships for the Goals**  **Knowledge: Distance-time graphs, solar system and gravity**  **Prior learning:** describe movements of the sun, moon, earth and other planets in the solar system; | | | | **Topic 8.4 Cells Getting the Energy the body needs**  **Context: SDG 10 reduced inequalities**  **Knowledge:** skeleton, muscles, respiration, fermentation, anaerobic respiration  **Prior learning:** introduction to human body. | | |
| **Attitudes and Skills (TENSILE) Numeracy, independence** | | | | **Attitudes and Skills (TENSILE) Expression, Enquiry** | | |
| **Assess:** 1 assessed mid unit task. End of topic test | | | | **Assess**: 1 assessed mid unit task. End of topic test | | |

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| **Topic 8.5 Magnetism and electricity**  **Context: SDG 9 Industry, innovation and infrastructure**  **Knowledge:** magnets & electromagnets, series/parallel circuits, voltage, current, resistance**.**  **Prior learning:** rules of magnets, building and interpreting simple circuits | | | | **Topic 8.6 Health and Drugs**  **Context: SDG 3 Good Health and Wellbeing**  **Knowledge:** effects of drug groups on mind and body, immunity, antibiotics, vaccinations  **Prior learning:** effects of diet, exercise, drugs and lifestyle on how bodies function. | | | |
| **Attitudes and Skills (TENSILE) Teamwork and Numeracy** | | | | **Attitudes and Skills (TENSILE) literacy and Expression** | | | |
| **Assess:** 1 assessed mid unit task. End of topic test | | | | **Assess:** 1 assessed mid unit task. End of topic test | | | |

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| **Topic 8.7 Waves and Energy Transfer**  **Context: SDG 11 Sustainable cities and communities**  **Knowledge:** light waves, colour, energy transfer, cost of energy  **Prior learning:** light travels in straight lines; how objects are seen; formation of shadows. | | | | | **Topic 8.8 Using the Earth Sustainably**  **Context: SDG, 13 Climate Action, and 16 Peace, justice and strong institutions**  **Knowledge: combustion, carbon cycle, rock cycle, structure of the Earth, acid rain,**  **Prior learning:** Understand changes associated with burning; group and identify rocks in different ways according to their properties, | | | |
| **Attitudes and Skills (TENSILE) Literacy and Expression** | | | | | **Attitudes and Skills (TENSILE) Literacy and Independence** | | | |
| **Assess:** 1 assessed mid unit task. End of topic test | | | | | **Assess:** 1 assessed mid unit task. End of topic test | | | |

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| **Exams** | **Y8 End of year Project**  **Attitudes and** Skills ALL TENSILE embedded in investigative project work | | | |