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| Subject: Science Year 11 Curriculum Map 2024-2025 | | | |
| Terms | **Topics covered** and **core knowledge and skills** | Links to careers | Links to the Knowledge organiser and other additional resources |
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| Half term 3  &  Half term 4 | **Unit BE1**   * DNA & the genome * Meiosis (& Mitosis recap) * Genetic inheritance * Genetic diagrams & Inherited disorders & Sex determination * Carbon & water cycle * Waste management & Land use * Deforestation & consequences of global warming * Selective breeding * Genetic engineering * Metabolism & HOMEOSTASIS * Human endocrine system & control of blood glucose * (HT) Negative feedback * Menstrual cycle & hormones in reproduction * (HT) Hormones for infertility   **Unit CE1**   * Development of the atmosphere & How oxygen & carbon dioxide increased * The greenhouse effect & Atmospheric pollutants * Evidence for global climate change & Carbon footprint * Global warming & reducing the use of resources * Life cycle assessment * Potable water RP * Waste water treatment * Collision theory & activation energy (inc. catalysts) * Rate of reaction (inc. factors) * Rate of reaction RP (Gas production & Turbidity) * Reversible reactions * Equilibrium & Changing conditions & Equilibrium * Effects of changing concentration on equilibrium (HT) * Effect of changing temperature & pressure on equilibrium (HT)   **Unit PE1**   * Transverse and Longitudinal Waves * Wave equations & Measuring sound waves * RP Wave speed (Water & Standing) * Types of electromagnetic waves & Properties of EM Waves * (HT) Properties and Applications of EM waves * RP Infrared * Velocity time graphs * Falling objects & F=MA * (HT) Momentum & (HT) Conservation of momentum * RP Hooke’s law * Gravity & Changes in energy calculations * Factors affecting braking distance * RP Reaction time * (HT) Electric motors | [Careers in science - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zjpc382#z34q7yc)  [STEM Careers Support](https://www.stem.org.uk/secondary/careers)  [Science careers support (stem.org.uk)](https://www.stem.org.uk/secondary/careers/resources/science)  [STEM Careers - Youth Employment UK](https://www.youthemployment.org.uk/careers-hub-sector/stem-careers/) | [Inheritance, variation and evolution](https://www.bbc.co.uk/bitesize/topics/zppffcw)  [Homeostasis and Response](https://www.bbc.co.uk/bitesize/topics/zyybb82)  [Chemistry of the Atmosphere](https://www.bbc.co.uk/bitesize/topics/zysvv9q)  [Using Resources](https://www.bbc.co.uk/bitesize/topics/zptnng8)  [Waves](https://www.bbc.co.uk/bitesize/topics/z2j22nb)  [Forces](https://www.bbc.co.uk/bitesize/topics/ztmttv4) |