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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) |