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| Subject: Science Year 7 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 | **Unit 03 – Particle Model**   * Properties of Solids, liquids and gases and their particles * Changing state * Diffusion and Brownian motion * Solubility - solute, solvent, solutions/conservation of mass * Elements, Mixtures, and Compounds * Chemical Reactions and Forming Compounds * Separating Mixtures - Evaporation and Filtration * Separating mixtures - distillation * The Periodic table * Metals Vs Non-metals * Trends in Group 1 Elements - Reactions and Reactivity * Trends in Group 7 Elements - Reactions and Reactivity | [How to become a degree apprentice process engineer: Alex's story - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zmfy7nb)  [How to become an engineering apprentice: Jade's story - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zrwqy9q) | [What is the arrangement of particles in a solid, liquid and gas? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z9r4jxs/articles/zqpv7p3)  [What are changes of state? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z9r4jxs/articles/zyhntrd)  [What is the process of filtration? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/zych6g8/articles/zfwbvwx) |
|  | **Unit 04 – OEOO4 Changing Shape**   * Different Forces * Representing Forces * Measuring Forces * Investigating Friction * Balanced and Unbalanced Forces * Stretching and Compression | [How to become a physicist: Mark Richards' story - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zdxn8xs)  [How to become an engineer - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zpgdkty) | [Introduction to forces - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zs3896f)  [Force diagrams and resultant forces - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zhnfp4j)  [Friction - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/z6s4r2p)  [Hooke's law - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zv4jdp3) |
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| Half term 4 | **Unit 05 – The Atom**   * The atom * Elements and compounds * Representing elements and compounds * Atoms in chemical reactions | [How to become a degree apprentice process engineer: Alex's story - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zmfy7nb)  [How to become an engineering apprentice: Jade's story - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/zrwqy9q) | [What is the arrangement of particles in a solid, liquid and gas? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z9r4jxs/articles/zqpv7p3)  [What are changes of state? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z9r4jxs/articles/zyhntrd)  [What is the process of filtration? - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/zych6g8/articles/zfwbvwx) |
|  | **Unit BE3 – Astrophysics**   * **The Planets** * **Other Celestial Bodies** * **Stars and Galaxies** * **Mass and Weight** * **Calculating Weight** | [SpaceCareers.uk](https://spacecareers.uk/articles/5b63b73d-b202-4473-962e-e6abad5fa9f5)  [SpaceCareers.uk](https://spacecareers.uk/articles/2026a98e-e4f0-4f71-bcd0-2a15e3568c05) | [How Do We Weigh Planets? | NASA Space Place – NASA Science for Kids](https://spaceplace.nasa.gov/planets-weight/en/)  [Structure of the solar system - The solar system - CCEA - GCSE Combined Science Revision - CCEA Single Award - BBC Bitesize](https://www.bbc.co.uk/bitesize/guides/zh4psk7/revision/1) |