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| Subject: Science Year 8 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 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) |
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| Half term 4 | **Unit 05 – The Cycles*** The Structure and Composition of the Earth
* The Rock Cycle (Formation of Rocks)
* The Rock Cycle (Observing Rocks)
* The Water Cycle
* The Scarcity of Drinking Water
 | [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 06 – Healthy Living*** Unicellular Organisms
* Recreational Drugs
* Health and the breathing system
* Health in pregnancy
 | [Substance misuse outreach worker | Explore careers | National Careers Service](https://nationalcareers.service.gov.uk/job-profiles/substance-misuse-outreach-worker)[Performance sports scientist | Explore careers | National Careers Service](https://nationalcareers.service.gov.uk/job-profiles/sports-scientist) | [Unicellular organisms - Living organisms - KS3 Biology - BBC Bitesize](https://www.bbc.co.uk/bitesize/articles/z4f26yc)[Structure and function of the gas exchange system - Respiration and gas exchange - KS3 Biology - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/zvrrd2p/articles/zk9t6g8)[Fertilisation - Reproduction- KS3 Biology - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/zybbkqt/articles/zmx94xs) |
|  | **Unit 07 – The Space Race*** Galileo
* The V2 Rocket
* The Evolution of Satellites
* Travelling beyond Earth
* The Beauty of Space
* Our Sun
 | [Astronomer | Explore careers | National Careers Service](https://nationalcareers.service.gov.uk/job-profiles/astronomer) | [Galileo Galilei for Kids | Learn about this famous scientist and mathematician - YouTube](https://www.youtube.com/watch?v=JI36dazqEwU)[Features of our solar system guide for KS3 physics students - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z8c9q6f/articles/zxyw7yc)[Sun as a star KS3 Physics guide for students - BBC Bitesize](https://www.bbc.co.uk/bitesize/topics/z8c9q6f/articles/zqtj2v4) |