Science – Foundation Tier

Below is a 6-week revision plan that will support your revision in the lead up to your PPE in March.

For each week there is a Educake quiz set for Biology, Chemistry and Physics. Regardless of who your normal teachers are, the Biology quiz will be set by Mr Rooke, the Physics quiz by Mr Nicholls and the Chemistry quiz, Mr Miles.

The topics covered in each quiz are detailed below. For each week there is also a BBC bitesize link and some video links that will support your revision and help you to complete the quiz.

Each quiz should take you around 10-15 minutes. You should complete a Biology, Chemistry and Physics quiz each week. Aim to score at least 80%. You can repeat the quiz as many times as you like. Educake also provides you with study slides which can be used to support your revision.

If you are not able to get logged onto Educake you must speak to or email your Science teacher so they can reset your password.

Please remember you should also be using some of the below strategies and the Science topic lists to prepare for your PPE.

- Read, Cover, Write, Check,
- Flashcards
- Mind maps

If you are needing support with any revision strategies, please speak to your Science teacher.

Biology

| Week | Educake Quiz | BBC Bitesize link | Youtube video |
|--------------------------|---------------------|------------------------------------|-----------------------|
| w/c 15 th Jan | Quiz 1 – Ecological | The carbon cycle - Natural | GCSE Biology Revision |
| | relationships and | cycles and decomposition - | "The Carbon Cycle" |
| | carbon cycle | Edexcel - GCSE Combined | (youtube.com) |
| | • | Science Revision - Edexcel - | |
| | | BBC Bitesize | |
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| | | Parasitism and mutualism - | |
| | | Adaptations, | |
| | | interdependence and | |
| | | competition - Edexcel - GCSE | |
| | | <u>Combined Science Revision -</u> | |
| | | Edexcel - BBC Bitesize | |
| w/c 22 nd Jan | Quiz 2 – Use of a | Levels of organisation - | GCSE Biology Revision |
| | quadrat and | Organisation of an ecosystem | "Sampling Organisms" |
| | transect | - Edexcel - GCSE Combined | (youtube.com) |
| | | Science Revision - Edexcel - | |
| | | BBC Bitesize | |

| w/c 29 th Jan | Quiz 3 -The heart and blood vessels | Blood vessels - Cellular respiration and transport - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize The heart - Cellular respiration and transport - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Biology Revision "Arteries, Veins and Capillaries" (youtube.com) GCSE Biology Revision "The Heart and Circulation" (youtube.com) |
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| w/c 5 th Feb | Quiz 4– Respiration | Blood - Cellular respiration and transport - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Biology Revision "Respiration" (youtube.com) Pearson Edexcel (9-1) GCSE Combined Science and GCSE Biology practical - rate of respiration (youtube.com) |
| w/c 12 th Feb | Quiz 5 – Enzymes | What are enzymes? - Enzymes - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Biology Revision "Effect of Temperature and pH on Enzymes" (youtube.com) |
| w/c 19 th Feb | Quiz 6 – Hormones, Menstrual cycle and contraception | Animal coordination, control and homeostasis - GCSE Combined Science - BBC Bitesize | GCSE Biology Revision "The Endocrine System" (youtube.com) GCSE Biology Revision "The Menstrual Cycle" (youtube.com) GCSE Biology Revision "Control of Blood Glucose Concentration" (youtube.com) GCSE Biology Revision "Contraception" (youtube.com) |

Chemistry

| Week | Educake Quiz | BBC Bitesize link | Youtube video |
|--------------------------|--|--|--|
| w/c 15 th Jan | Quiz 1 – Atomic Structure | Structure of the atom - Atomic structure - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Physics - Atomic Structure, Isotopes & Electrons Shells #32 (youtube.com) |
| w/c 22 nd Jan | Quiz 2 –Covalent Bonding and metallic properties | Substances with many covalent bonds - Giant covalent substances - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Chemistry - Covalent Bonding #16 (youtube.com) |
| w/c 29 th Jan | Quiz 3 - Group 1 and Group 7 | Groups in the periodic table - GCSE Combined Science - BBC Bitesize | GCSE Chemistry - Halogens and Noble Gases #12 (youtube.com) |
| w/c 5 th Feb | Quiz 4– Rates of reactions | What is a rate of reaction? - Rates of reaction - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Chemistry - Rates of Reaction #46 (youtube.com) |
| w/c 12 th Feb | Quiz 5 – Exothermic and Endothermic | Endothermic and exothermic reactions - Heat energy changes in chemical reactions - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Chemistry - Exothermic and Endothermic Reactions #43 (youtube.com) |
| w/c 19 th Feb | Quiz 6 – Earth's Atmosphere | The Earth's early atmosphere - Earth and atmospheric science - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Chemistry - Evolution of the Atmosphere #67 (youtube.com) |

Physics

| Week | Educake Quiz | BBC Bitesize link | Youtube video |
|--------------------------|------------------|------------------------------|-------------------------|
| w/c 15 th Jan | Quiz 1 – | Calculating energy changes | GCSE Physics - Gravity, |
| | Gravitational | - Transferring energy - | Weight and GPE #3 |
| | Potential Energy | Edexcel - GCSE Combined | (youtube.com) |
| | | Science Revision - Edexcel - | |
| | | BBC Bitesize | |
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| w/c 22 nd Jan | Quiz 2 –Investigating Resistance – Core practical | Required practical - investigate current - voltage graphs - Electric circuits - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | Pearson Edexcel (9-1) SHORTS Investigating resistance in circuits GCSE Comb Sci GCSE Physics (youtube.com) |
|--------------------------|---|--|---|
| w/c 29 th Jan | Quiz 3 -Using Charge equation. | Electrical charge and current - Electric circuits - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Physics - Charge, Current & Time #16 (youtube.com) |
| w/c 5 th Feb | Quiz 4– Magnetism | Types of magnets - Magnets and magnetic fields - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Physics - Permanent & Induced Magnets #77 (youtube.com) GCSE Physics - What Are Magnets? How to Draw Magnetic Field Lines #76 (youtube.com) |
| w/c 12 th Feb | Quiz 5 – National Grid and Transformers | Multiple choice questions - Sample exam questions - electromagnetic induction - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Physics - National Grid #20 (youtube.com) |
| w/c 19 th Feb | Quiz 6 – Particle theory, Kelvin Scale, Core practical – Investigating densities | Required practical - how to calculate density - Density of materials - Edexcel - GCSE Physics (Single Science) Revision - Edexcel - BBC Bitesize States of matter - Temperature changes and | Pearson Edexcel (9-1) Combined Science & GCSE Physics Investigating the density of solids & liquids (youtube.com) Kelvin Scale and Absolute Zero 9-1 |
| | | energy - Edexcel - GCSE Combined Science Revision - Edexcel - BBC Bitesize | GCSE Physics OCR, AQA, Edexcel (youtube.com) |