

Year 11 Biology

The GCSE Biology course continues to build on knowledge and understanding of Science from Years 9 and 10 as well as some topics originally studied in Key Stage 3. B7 continues the ecology topic which most closely aligns with the Key Stage 3 topic 'ecosystems'. It also develops understanding of new technologies such as biotechnology. We then finish the GCSE teaching with the B6 topic which covers genetics and evolution. This aligns with the Key Stage 3 topic 'genes' dealing with ideas such as inheritance, and includes genetic diseases which links with B1 and B3 as these also cover causes of disease.

Investigative skills are developed by a number of required practical activities. There are also other practical activities that enrich learning, as well as practical demonstrations that do the same.

Methods of deepening and securing knowledge:

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| Retrieval practice | Almost all lessons have retrieval practice in them. This is usually as a starter activity. |
| Interleaving | Retrieval practice includes interleaved questions from previous topics, making connections between topics where possible. Many ideas from Key Stage 3 are revisited during Year 11 lessons. |

| | Autumn term 1 | Autumn term 2 | Spring term 1 | Spring term 2 | Summer term 1 | Summer term 2 |
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| Topic(s) | B7 Continued <ul style="list-style-type: none"> - Levels of organisation - Material cycling - Biodiversity - Waste management - Deforestation - Global warming - Maintaining biodiversity - Trophic levels - Biomass (pyramids and transfer) - Food production - Role of biotechnology B6 Part 1 <ul style="list-style-type: none"> - Sexual and asexual reproduction - Meiosis - DNA and the genome - Genetic inheritance | | B6 continued <ul style="list-style-type: none"> - Theory of evolution - Speciation - Development of genetics - Evidence for evolution - Fossils - Extinction - Resistant bacteria - Classification of living organisms Revision | | Revision | |

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| | <ul style="list-style-type: none"> - Inherited disorders - Sex determination - Variation - Evolution - Genetic engineering - Cloning | | |
| Assessment | - November PPE to cover a full past paper on B1-B4 units | - February PPE to cover a second past paper on B5 and B7 units | - Full public exams in May and June |

Independent Learning:

Independent learning is a core part of learning and serves to support learning in class, enrich student experience and develop knowledge and skills. There are 2 types of independent learning set in biology e.g. Educake revision (an online platform that support retrieval of knowledge) and past paper questions that develop exam literacy. Preparing for assessment is an essential part of each topic as each assessment allows teachers and students to see their progress. It is crucial that revision is completed so students can show what they know.