

| AQA TRILOGY Biology | | Covered in Lesson | Diagnosis | | | Revised | | |
|---|---|-------------------|-----------|---|---|---------|---|---|
| B2.2 Inheritance, Variation and Evolution | | | R | A | G | 1 | 2 | 3 |
| B2.2.1 Reproduction | Describe features of sexual and asexual reproduction | | | | | | | |
| | Describe what happens during meiosis and compare to mitosis | | | | | | | |
| | Describe what happens at fertilisation | | | | | | | |
| | Describe the structure of DNA and its role in storing genetic information inside the cell | | | | | | | |
| | Explain the term 'genome' and the importance of the human genome (specific examples from spec only) | | | | | | | |
| | Describe how characteristics are controlled by one or more genes, including examples | | | | | | | |
| | Explain important genetic terms: gamete, chromosome, gene, allele, genotype, phenotype, dominant, recessive, homozygous and heterozygous | | | | | | | |
| | Explain and use Punnet square diagrams, genetic crosses and family trees | | | | | | | |
| | HT ONLY: Construct Punnet square diagrams to predict the outcomes of a monohybrid cross | | | | | | | |
| | Describe cystic fibrosis and polydactyly as examples of inherited disorders | | | | | | | |
| | Evaluate social, economic and ethical issues concerning embryo screening when given appropriate information | | | | | | | |
| | Describe how the chromosomes are arranged in human body cells, including the function of the sex chromosomes | | | | | | | |
| | Explain how sex is determined and carry out a genetic cross to show sex inheritance | | | | | | | |
| B2.2.2 Variation and Evolution | Describe what variation is and how it can be caused within a population | | | | | | | |
| | Describe mutations and explain their influence on phenotype and changes in a species | | | | | | | |
| | Explain the theory of evolution by natural selection | | | | | | | |
| | Describe how new species can be formed | | | | | | | |
| | Describe what selective breeding is | | | | | | | |
| | Explain the process of selective breeding, including examples of desired characteristics and risks associated with selective breeding | | | | | | | |
| | Describe what genetic engineering is, including examples, and how it is carried out | | | | | | | |
| | Explain some benefits, risks and concerns related to genetic engineering | | | | | | | |
| | HT ONLY: Explain the process of genetic engineering, to include knowledge of enzymes and vectors | | | | | | | |
| B2.2.3 The development of understanding of genetics and evolution | Describe some sources of evidence for evolution | | | | | | | |
| | Describe what fossils are, how they are formed and what we can learn from them | | | | | | | |
| | Explain why there are few traces of the early life forms, and the consequences of this in terms of our understanding of how life began | | | | | | | |
| | Describe some of the causes of extinction | | | | | | | |
| | Describe how antibiotic-resistant strains of bacteria can arise and spread (inc MRSA) | | | | | | | |
| | Describe how the emergence of antibiotic-resistant bacteria can be reduced and controlled, to include the limitations of antibiotic development | | | | | | | |
| B2.2.4 Evolution | Describe how organisms are named and classified in the Linnaean system | | | | | | | |
| | Describe and interpret evolutionary trees | | | | | | | |
| | Explain how scientific advances have led to the proposal of new models of classification, inc three-domain system | | | | | | | |