

Biology

Note – Lessons are delivered to students earlier or later depending on how much curriculum time you get for Biology, Chemistry and Physics in that particular year. So some students learn about a topic in the Autumn term in one class and other students learn about it in the Spring term. Try to find where you are up to. (Note – all students will receive the exact same amount of curriculum time between Years 7 and 11 by the end of Year 11)

TASK - Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

Year 7 Biology Autumn term

Unit Title: B7a Cells (Autumn Term)
How to observe cells under a microscope - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize What are plant and animal cells? - BBC Bitesize Specialised animal cells - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize Specialised plant cells - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize Unicellular organisms - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize Diffusion in cells - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize How plants and animals are organised - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize What are skeletal muscles? - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize

Year 7 Biology Spring term

Unit Title: B7b Reproduction Spring Term)
What is pollination? Reproduction - KS3 Biology - BBC Bitesize - BBC Bitesize Fruit and seeds - Reproduction - KS3 Biology - BBC Bitesize - BBC Bitesize Human reproduction - Reproduction - KS3 Biology - BBC Bitesize - BBC Bitesize Fertilisation - Reproduction- KS3 Biology - BBC Bitesize - BBC Bitesize Changes that occur during the menstrual cycle - Reproduction - KS3 Biology - BBC Bitesize - BBC Bitesize

Year 7 Biology Summer term

Unit Title: B8a Biological Processes (Autumn Term)

[What is photosynthesis? - Respiration and gas exchange - KS3 Biology - BBC Bitesize](#)

[What are limiting factors in photosynthesis? Respiration and gas exchange - Biology - BBC Bitesize - BBC Bitesize](#)

[Measuring photosynthesis experiment - Respiration and gas exchange - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Structure and function of the gas exchange system - Respiration and gas exchange - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[What is the difference between aerobic and anaerobic respiration? - BBC Bitesize](#)

[What is respiration and gas exchange? - BBC Bitesize](#)

[Anaerobic and aerobic respiration - BBC Bitesize](#)

Unit Title: B8b Genetics and Evolution (Spring Term)

[What are the kingdoms? - Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[What are causes of variation? - BBC Bitesize](#)

[Types of variation - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[DNA - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Inheritance - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Adaptations and evolution - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[What is natural selection? - Inheritance and genetics - BBC Bitesize - BBC Bitesize](#)

[Natural selection leads to evolution - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Species and selective breeding - Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Biodiversity, extinction and gene pools - Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Should extinct species be brought back to life? Inheritance and genetics - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

Year 8 Biology Autumn term

Year 8 Biology Spring term

Unit Title: Organisation and the digestive system

[The structure of the digestive system - Nutrition, digestion and excretion - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Structures of carbohydrates, proteins and lipids - Animal organisation - digestion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Enzymes - Animal organisation - digestion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical activity - food tests - Animal organisation - digestion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical activity - Animal organisation - digestion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The liver and digestion - Animal organisation - digestion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 9 Biology Autumn term

Unit Title: Organising animals and plants

[How plants and animals are organised - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Blood - Animal organisation - transport systems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[The circulatory system - Respiration and gas exchange - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Control of the heart rate - Animal organisation - transport systems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Food chains and webs - Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Changes to food webs - Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)
[Plant transport tissues - xylem and phloem - Plant organisation - Edexcel - GCSE Biology \(Single Science\) Revision - Edexcel - BBC Bitesize](#)
[What are pyramids of numbers and biomass? Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Ecological sampling - Ecosystems and habitats - KS3 Biology - BBC Bitesize - BBC Bitesize](#)
[Plant transport tissues - xylem and phloem - Plant organisation - Edexcel - GCSE Biology \(Single Science\) Revision - Edexcel - BBC Bitesize](#)
[Bioaccumulation - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

[Factors affecting transpiration - Plant organisation - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

Year 9 Biology Spring term

Unit Title: Communicable diseases

[Pathogens - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Bacterial diseases - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Viral diseases - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Protist diseases - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Fungal diseases - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[How to prevent the spread of diseases - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Non-specific human defence systems against disease - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[The immune system of the human body in defence against disease - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Science calculations - interpreting information from graphs - Communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

Unit Title: Preventing and treating disease

[Vaccinations - Treating, curing and preventing disease - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Herd immunity - Treating, curing and preventing disease - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Antibiotics and painkillers - Treating, curing and preventing disease - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The discovery of new drugs - Treating, curing and preventing disease - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The development and testing of new drugs - Treating, curing and preventing disease - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 9 Biology Summer term

Unit Title: Non communicable disease

[Different types of disease - Non-communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Cancer and carcinogens - Non-communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Smoking and cardiovascular disease - Non-communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Effects of alcohol on liver and brain function and unborn babies - Non-communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Effect of lifestyle factors on exercise, nutrition and obesity - Non-communicable diseases - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

Unit Title: Photosynthesis

[What is photosynthesis? - Respiration and gas exchange - KS3 Biology - BBC Bitesize](#)

[Required practical activity - light intensity and photosynthesis - Photosynthesis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Use of glucose made by photosynthesis - Food supply, plant growth and productivity - Higher Biology Revision - BBC Bitesize](#)

[The importance of limiting factors – Higher - Photosynthesis - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 10 Biology Autumn term

Unit Title: Respiration

[Cellular respiration - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Aerobic and anaerobic respiration - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Anaerobic respiration - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Response to exercise - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Oxygen debt and the liver – Higher only - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Metabolism - Respiration - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Unit Title: The human nervous system

[Homeostasis - Coordination and control - the nervous system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The structure and function of the nervous system - Coordination and control - the nervous system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Reflex actions and reflex arcs - Coordination and control - the nervous system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical activity 7 - human reaction times - Coordination and control - the nervous system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Unit Title: Hormonal coordination

[Hormones and nerves - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Negative feedback systems in hormonal control – Higher - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Thyroxine and adrenaline – Higher - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Control of blood glucose concentration by pancreas and insulin - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Type 1 and Type 2 Diabetes - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Role of glucagon in control of blood sugar levels – Higher - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The role of reproductive hormones in puberty - Coordination and control - the human endocrine system - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 10 Biology Spring term

Unit Title: Homeostasis in action

[Body temperature and the thermoregulatory centre - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Importance of water balance in the body - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Maintaining nitrogen balance in the body - Higher - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Maintaining water balance in the body - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Scientific calculations - Translate tables and bar charts - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[The effect of ADH on tubule permeability and in water balance – Higher - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Treating kidney failure by dialysis - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Treating kidney failure by transplant - Homeostasis in humans - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

Unit Title: Adaptations, interdependence and competition

Year 10 Biology Summer term

Unit Title: Organising an ecosystem

[Predators and prey - Organisation of an ecosystem - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - measuring population size in a habitat - Organisation of an ecosystem - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[How materials are cycled in an ecosystem - Organisation of an ecosystem - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The carbon cycle - Organisation of an ecosystem - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The water cycle - Organisation of an ecosystem - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Unit Title: Biodiversity and ecosystems

[Biodiversity and interdependence - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Human population growth - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Waste management - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Greenhouse effect and evidence of enhanced greenhouse effect - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Maintaining biodiversity - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Unit Title: Cell structure and transport

[Animal cells - Cell structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Plant cells - Cell structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Cell measurement - Cell structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Preparing biological samples for examination - Cell structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Plant and animal cells - Cell structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Diffusion - Transport in cells - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Osmosis - Transport in cells - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Required practical - the effect of osmosis on plant tissue - Transport in cells - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Active transport - Transport in cells - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 11 Biology Autumn term

Unit Title: Cell division

[Chromosomes and DNA - Cell division - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Mitosis and the cell cycle - Cell division - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Cell differentiation - Cell division - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Using human stem cells - Cell division - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Adult and embryonic stem cells - Living organisms - KS3 Biology - BBC Bitesize - BBC Bitesize](#)

Unit Title: Reproduction

[Asexual reproduction - Asexual and sexual reproduction - National 4 Biology Revision - BBC Bitesize](#)

[DNA structure - Reproduction, the genome and gene expression - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[The human genome - Reproduction, the genome and gene expression - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[How to construct Punnett squares - Genetic inheritance - part one - Edexcel - GCSE Biology \(Single Science\) Revision - Edexcel - BBC Bitesize](#)

[Inherited disorders - Genetic inheritance - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Family trees - Genetic inheritance - part one - Edexcel - GCSE Biology \(Single Science\) Revision - Edexcel - BBC Bitesize](#)

[Limitations of genetic testing - Genetic inheritance - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Year 11 Biology Spring term

Unit Title: Variation and evolution

[Causes of variation - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Mutation and variation - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Selective breeding - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Genetic engineering - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Current uses of genetic engineering - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[The process of genetic engineering - Higher - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

[Potential benefits and risks of genetic engineering - Variation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize](#)

Unit Title: Genetics and evolution

[Biodiversity - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Human population growth - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Waste management - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Deforestation - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Peat bog destruction - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Greenhouse effect and evidence of enhanced greenhouse effect - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Evidence for global warming - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

[Maintaining biodiversity - Biodiversity and the effect of human interaction on ecosystems - AQA - GCSE Biology \(Single Science\) Revision - AQA - BBC Bitesize](#)

End of Biology curriculum