

Mapping grid showing how the AQA AS Level Biology specification (for first teaching in 2008) is covered by Boardworks AS Biology

Unit 1. Biology and disease

Topic	Boardworks AS Biology presentation title
3.1.1 Disease may be caused by infectious pathogens or may reflect the effects of lifestyle.	<ul style="list-style-type: none"> • Infectious Diseases • Immunology • Lifestyle and Disease
3.1.2 The digestive system provides an interface with the environment. Digestion involves enzymic hydrolysis producing smaller molecules that can be absorbed and assimilated.	<ul style="list-style-type: none"> • Biological Molecules: Proteins and Lipids • Enzymes • Biological Molecules: Water and Carbohydrates
3.1.3 Substances are exchanged between organisms and their environment by passive or active transport across exchange surfaces. The structure of plasma membranes enables control of the passage of substances across exchange surfaces.	<ul style="list-style-type: none"> • Cell Structure • Biological Molecules: Proteins and Lipids • Cell Membranes • Transport Across Membranes
3.1.4 The lungs of a mammal also act as an interface with the environment. Lung function may be affected by pathogens and by factors relating to lifestyle.	<ul style="list-style-type: none"> • Gas Exchange • Lifestyle and Disease
3.1.5 The functioning of the heart plays a central role in the circulation of blood and relates to the level of activity of an individual. Heart disease may be linked to factors affecting lifestyle.	<ul style="list-style-type: none"> • The Heart • Lifestyle and Disease
3.1.6 Mammalian blood possesses a number of defensive functions.	<ul style="list-style-type: none"> • Immunology

Mapping grid showing how the AQA AS Level Biology specification (for first teaching in 2008) is covered by Boardworks AS Biology

Unit 2. The variety of living organisms

Topic	Boardworks AS Biology presentation title
3.2.1 Living organisms vary and this variation is influenced by genetic and environmental factors.	<ul style="list-style-type: none"> Variation
3.2.2 DNA is an information-carrying molecule. Its sequence of bases determines the structure of proteins, including enzymes.	<ul style="list-style-type: none"> Nucleic Acids and the Genetic Code Cell Division
3.2.3 Similarities and differences in DNA results in genetic diversity	<ul style="list-style-type: none"> Variation
3.2.4 The variety of life is extensive and this is reflected in similarities and differences in its biochemical basis and cellular organisation.	<ul style="list-style-type: none"> Gas Exchange Biological Molecules: Water and Carbohydrates Cell Division
3.2.5 During the cell cycle, genetic information is copied and passed to genetically identical daughter cells.	<ul style="list-style-type: none"> Nucleic Acids and the Genetic Code Cell Division
3.2.6 In complex multicellular organisms, cells are organised into tissues, tissues into organs and organs into systems.	<ul style="list-style-type: none"> Cell Division
3.2.7 Factors such as size and metabolic rate affect the requirements of organisms and this gives rise to adaptations such as specialised exchange surfaces and mass transport systems.	<ul style="list-style-type: none"> Circulation Gas Exchange Transport in Plants
3.2.8 Classification is a means of organising the variety of life based on relationships between organisms and is built round the concept of species.	<ul style="list-style-type: none"> Classification
3.2.9 Originally classification systems were based on observable features but more recent approaches draw on a wider range of evidence to clarify relationships between organisms.	<ul style="list-style-type: none"> Classification
3.2.10 Adaptation and selection are major components of evolution and make a significant contribution to the diversity of living organisms.	<ul style="list-style-type: none"> Infectious Diseases
3.2.11 Biodiversity may be measured within a habitat.	<ul style="list-style-type: none"> Biodiversity