

Separate science (Biology)

Paper 1

Content overview

Topic 1 – Key concepts in biology

Topic 2 – Cells and control

Topic 3 – Genetics

Topic 4 – Natural selection and genetic modification

Topic 5 – Health, disease and the development of medicines

Paper 2

Content overview

Topic 1 – Key concepts in biology

Topic 6 – Plant structures and their functions

Topic 7 – Animal coordination, control and homeostasis

Topic 8 – Exchange and transport in animals

Topic 9 – Ecosystems and material cycles

Practical work

The content includes mandatory core practicals, All students must carry out all 18 of the mandatory core practicals listed below.

Biology Core practicals

1. Investigate biological specimens using microscopes, including magnification calculations and labelled scientific drawings from observations
2. Investigate the effect of pH on enzyme activity
3. Investigate osmosis in potatoes
4. Investigate the effect of light intensity on the rate of photosynthesis
5. Investigate the rate of respiration in living organisms
6. Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects