



Biology

Year 12

Half Term 1

Biological Molecules

Monomers and Polymers

Carbohydrates and lipids

Properties of proteins
and enzymes

Cells

Structure of eukaryotic cells

Structure of prokaryotic
cells and viruses

Methods of studying cells

All cells arise from other cells

Half Term 3

Cells

Organisms exchange
substances

Surface area to volume
ratio

Gas exchange

Genetics

Genetic information,
variation and relationships
between organisms

DNA, genes and
chromosomes

Half Term 5

Organisms

Mass transport in
mammals

Mass transport in plants

Year 12 Mocks
(April)



Progress Update 3
issued (May)



Half Term 2

Biological Molecules

Structure of DNA and RNA

DNA Replication

ATP

Water

Inorganic Ions

Cells

Transport across cell
membranes

Cell recognition and the
immune system



Progress Update 1
issued (November)

Half Term 4

Genetics

DNA and protein synthesis

Genetic diversity can arise
as a result of mutation or
during meiosis

Organisms

Digestion and absorption



Progress Update 2
issued (March)

Half Term 6

Genetics

Genetic diversity and
adaption

Species and taxonomy

Biodiversity within a
community

Investigating biodiversity



Biology

Year 13

Half Term 1

Energy transfers in and between organisms

Photosynthesis

Genetics, populations, evolution and ecosystems

Inheritance

Populations

Half Term 3



Progress Update 2 issued (January)

Organisms respond to changes in their internal and external environments

Survival and response

Receptors

Control of heart rate

Nerve impulses

Synaptic transmissions

Skeletal muscles

Principles of homeostasis and negative feedback

Control of blood glucose

Energy transfers in and between organisms

Energy and ecosystems

Nutrient cycles

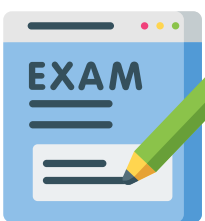
Half Term 5

Recombinant DNA technology

Differences in DNA between individuals of the same species can be exploited for identification and diagnosis of heritable conditions

Genetic fingerprinting

Exams



3 x 2 hour exams (equally weighted)



Half Term 2



Progress Update 1 issued (November)

Energy transfers in and between organisms

Respiration

Genetics, populations, evolution and ecosystems

Evolution may lead to speciation

Populations in ecosystems

Year 13 Mocks (November)



Half Term 4

The control of gene expression

Alteration of the sequence of bases in DNA can alter the structure of proteins

Most of a cell's DNA is not translated

Regulation of transcription and translation

Gene expression and cancer

Using genome projects

Year 13 Mocks (February)



Progress Update 3 issued (March)

Results Day (August)

