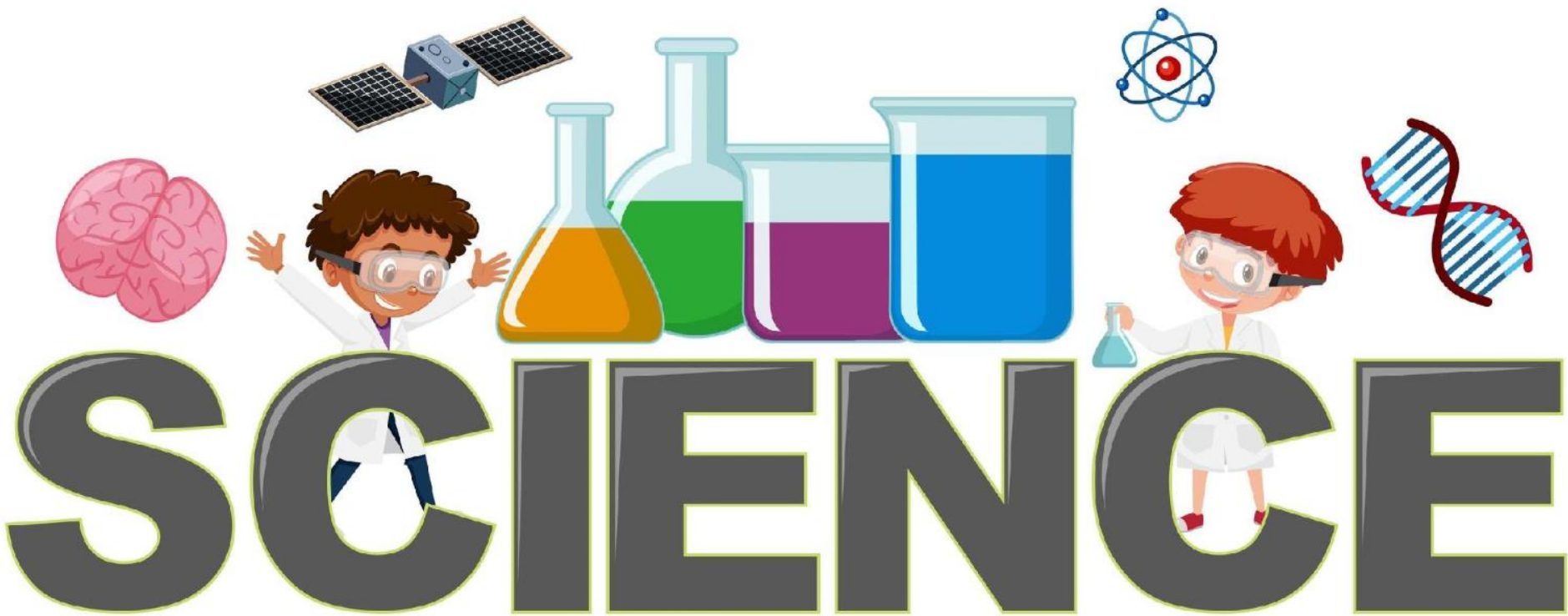




Biology



Chemistry



Physics



ENVIRONMENTAL
SCIENCE

Higher Science

**Biology Human Biology, Chemistry, Physics,
Environmental Science**

All have a similar structure:

3 Units of study with an exam at the end of the course

An Assignment coursework task

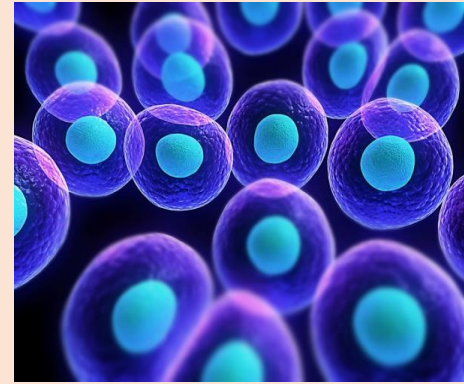


Higher
Coursework
Assessment Task

Higher Biology

Unit 1: DNA and the Genome

Structure of DNA, replication of DNA, control of gene expression, structure of the genome, mutations, evolution, gene sequencing



Unit 2: Metabolism and Survival

Metabolic pathways, respiration, metabolic rate, metabolic diversity and extremes, surviving adverse conditions, environmental control of metabolism



Unit 3: sustainability and Interdependence

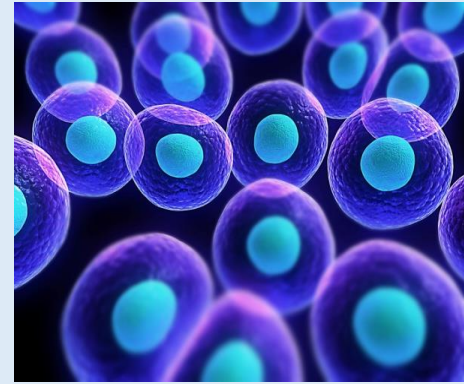
Food supply, plant growth and productivity, plant and animal breeding, crop protection, animal welfare, symbiosis, social behaviour, components of biodiversity, threats to biodiversity.



Higher Human Biology

Unit 1: Human Cells

Division and Differentiation in Human Cells, Structure and Replication of DNA, Gene Expression, Mutations, Human Genomics, Metabolic Pathways, Cellular Respiration, Energy Systems in Muscle Cells



Unit 2: Physiology and Health

Structure and Function of Arteries, Capillaries and Veins, Structure and Function of the Heart, Pathology of Cardiovascular Disease (CVD), Blood Glucose Levels and Obesity



Unit 3: Neurobiology and Immunology

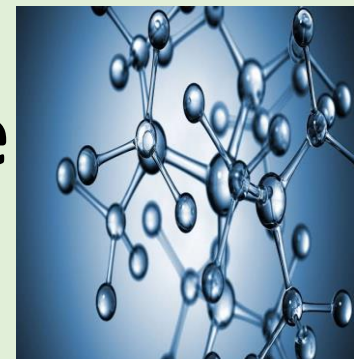
Divisions of the Nervous System and Neural Pathways, The Cerebral Cortex, Memory, The Cells of the Nervous System and Neurotransmitters at Synapses, Nonspecific Body Defences, Specific Cellular Defences Against Pathogens, Immunisation, Clinical Trials of Vaccines and Drugs



Higher Chemistry

Unit 1: Chemical changes and structure

Periodicity, Structure and bonding, Oxidising and reducing agents



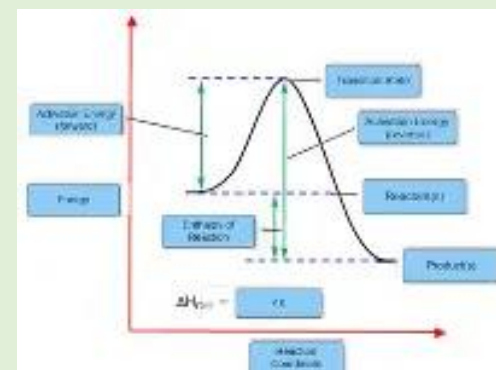
Unit 2: Nature's chemistry

Systematic carbon chemistry, Everyday consumer products, Fragrances, Skin care



Unit 3: Chemistry in society

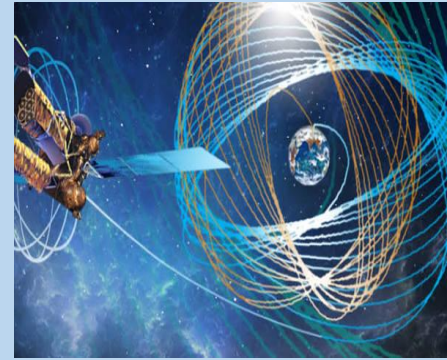
Getting the most from reactants, Controlling the rate, Chemical energy, Equilibria, Chemical analysis



Higher Physics

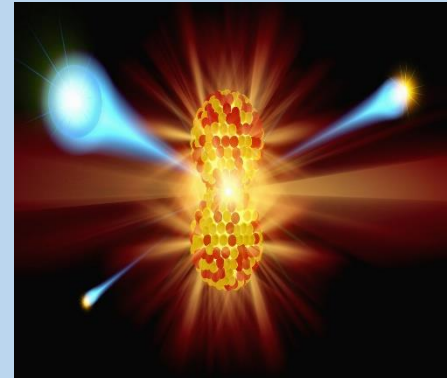
Unit 1: Our Dynamic Universe

Motion — equations and graphs, Forces, energy and power, Collisions, explosions, and impulse, Gravitation, Special relativity, The expanding Universe



Unit 2: Particles and waves

Forces on charged particles, The Standard Model, Nuclear reactions, Inverse square law, Wave-particle duality, Interference, Spectra, Refraction of light



Unit 3: Electricity

Monitoring and measuring AC, Current, potential difference, power, and resistance, Electrical sources and internal resistance, Capacitors, Semiconductors and p-n junctions.



Higher Environmental Science

Unit 1: Living environment

Investigating ecosystems and biodiversity, Interdependence, Human influences on biodiversity



Unit 2: Earth's resources

An overview of Earth systems and their interactions, The geosphere, The hydrosphere, The biosphere, The atmosphere



Unit 3: Sustainability

Global challenges, Food, Water, Energy, Waste management, Anthropogenic climate change



Higher Assessment – Exams

All subjects are a similar format & length:

**Bio, HHB,
Chemistry**

2 hrs 30 min

100 marks =
80% of final
mark

Physics

2 hrs 30 min

130 marks =
80% of final
mark (scaled)

**Environmental
Science**

Paper 1 45 min
Paper 2 hrs

100 marks =
80% of final
mark (scaled)

Assignments

All subjects are the same format & requirements:

8 hours, of which 2 hours is for a written report under exam conditions

All are equivalent to 20% of the overall mark

Assignments

In all subjects, the assignment is based on a piece of practical work (investigation) completed in class.

There will be some element of pupil choice in the investigation

Pupils also have to gather other sources of information and data on the investigation they have done

Assignments

Pupils are allowed access to only certain documents during the write-up stage:

Their Instructions for Candidates document – unaltered

Their experimental data and a method diagram

Their data and extracts gathered from other sources

Assessment – Assignments

During the report write-up pupils are **not** permitted:

- A pre-prepared draft of any part of their written report.
- Access to any other materials or the internet
- Any opportunity to re-draft their report after the report-writing stage

Teachers must not read the reports or provide any form of feedback to candidates during the report stage.

It is very important your young person is familiar with the course specification documentation on the QS website (most likely also on their google classroom!)



Higher
course
specification



**Higher Human Biology, SCQF Level 6
Course Specification**

Course code:	C840 76
Course assessment code:	X840 76
SCQF:	level 6 (24 SCQF credit points)
Valid from:	session 2026–27

Resources

Pupils all have access to online support resources:



Google classroom –
all materials
from class



Achieve website –
summary notes,
questions, target-
setting etc



West OS -
Explanatory videos
(accessed via Glow)

(Pupils can contact their class teacher or the school office if they need a reminder of log-in details)

In addition, the following sites are open to all:



Qualifications Scotland website - Past exam papers



Jabchem website – past papers going back to the beginning of all CfE courses in the sciences



BBC Bitesize website - Summary notes, videos, questions

Support

All biology teachers have an “open-door” support policy whereby pupils can come and ask for help or work on practice questions at any point in the week: breaktimes, lunchtimes and, by arrangement, after school

Some after school sessions run regularly – contact class teacher



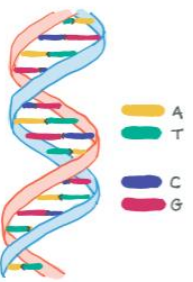
Studying

At all levels, the course content needs to be learned thoroughly

- Summary notes, mind maps, flashcards

DNA

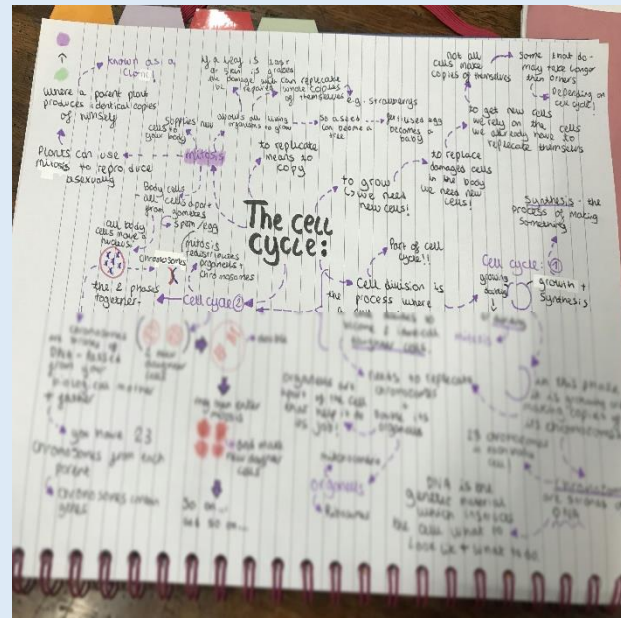
- DNA is a polymer made up of two strands forming a double helix
- DNA is contained in structures called chromosomes
- A gene is a small section of DNA on a chromosome
- Each gene codes for a particular sequence of amino acids to make a specific protein
- A genome is the entire genetic material of an organism



DNA structure

DNA contains four bases

A - adenine } pair together
T - thymine }
C - cytosine } pair together
G - guanine }



Practising SQA exam questions and checking the answers is really valuable

Study planning / timetable

If they haven't already, pupils would benefit from creating a study plan to divide up their time and their course into manageable chunks

MONTHLY STUDY PLANNER

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY

