

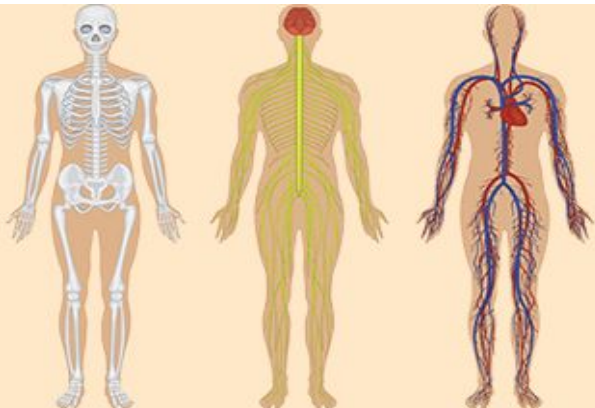


Science: Revision and Resources

UNITS COVERED IN BIOLOGY

N5:

- Unit 1 – Cell Biology
- Unit 2 – Multicellular Organisms
- Unit 3 – Life on Earth



Higher:

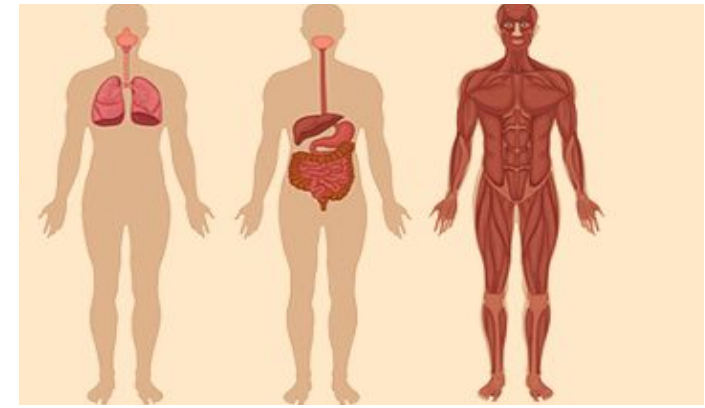
- Unit 1 – DNA & The Genome
- Unit 2 – Metabolism & Survival
- Unit 3 – Sustainability & Interdependence

Higher Human:

- Unit 1 – Cell Biology
- Unit 2 – Physiology & Health
- Unit 3 – Neurobiology & Immunology

Advanced Higher:

- Cells & Proteins
- Organisms & Evolution
- Investigative Biology



UNITS COVERED IN CHEMISTRY

N5:

- Unit 1 – Chemical Changes & Structure
- Unit 2 – Nature's Chemistry
- Unit 3 – Chemistry in Society

Higher:

- Unit 1 – Chemical Changes & Structure
- Unit 2 – Nature's Chemistry
- Unit 3 – Chemistry in Society
- Unit 4 – Researching Chemistry

Advanced Higher:

- Inorganic Chemistry
- Physical Chemistry
- Organic Chemistry & Instrumental analysis
- Researching chemistry



UNITS COVERED IN PHYSICS

N5:

- Units & Prefixes
- Dynamics & Space
- Energy & Electricity
- Waves & Radiation

Higher:

- Units, Prefixes & Uncertainties
- Our Dynamic Universe
- Particles & Waves
- Electricity

Advanced Higher:

- Rotational motions & Astrophysics
- Quanta & Waves
- Electromagnetism
- Units, Prefixes & Uncertainties



Summary

ASSIGNMENTS

*Not applicable to NPA courses.

- Exams are worth 75% of your grade, assignments are completed in class under exam conditions and are worth ~25% of your grade.
- Assignment Mark Scheme are similar for Biology, Physics & Chemistry, but there are some differences students should be aware of if they take multiple sciences. Students will be given a copy of 'instructions for candidates' which they will have throughout the assignment writing process and should refer to thoroughly.

You can use this table to check you have covered all the sections in your report.

Section	Description	Marks
Title and structure	An informative title and a structure that can be easily followed.	1
Aim	A description of the purpose of your investigation.	1
Underlying biology	A description of the biology relevant to your aim, which shows your understanding.	4
Data collection and handling	A brief description of your experiment.	1
	Sufficient data from your experiment.	1
	Data from your experiment, including average values, presented in a table with headings and units.	1
	Data from an internet/literature source.	1
	A citation for an internet/literature source and the reference later in the report.	1
Graphical presentation	Appropriate type of graph used to present your experimental data.	1
	Suitable scales.	1
	Suitable labels and units on axes.	1
	All data plotted accurately.	1
Analysis	A correct comparison of the experimental data with data from the internet/literature source OR a correctly completed calculation(s) based on the experimental data, linked to the aim.	1
Conclusion	A conclusion relating to your aim, based on all the data in your report.	1
Evaluation	Three evaluative statements supported by justifications.	3
Total		20

Once complete, give your report to your teacher or lecturer to submit to SQA.

ASSIGNMENTS



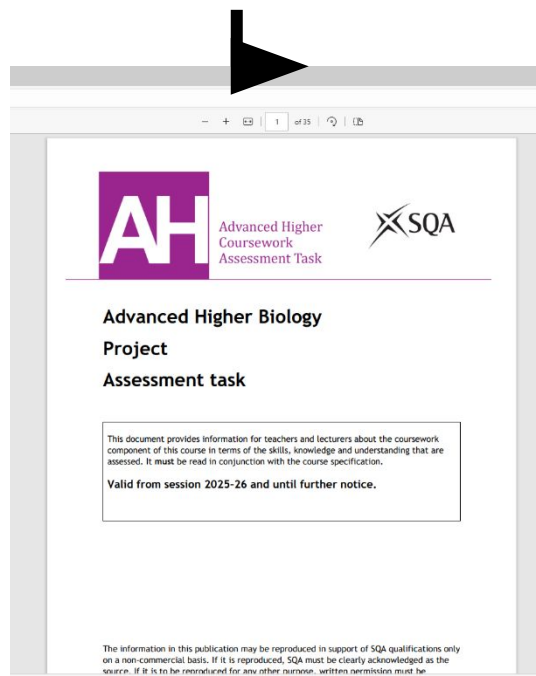
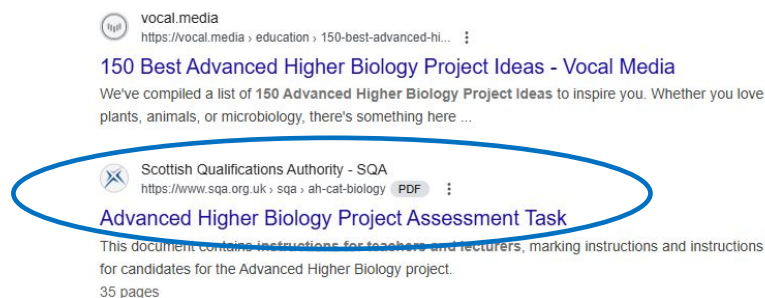
SQA documents (including instructions for candidates can be accessed via google).

You can access a PDF file which shows the instructions for candidates. This can be used to help understand what needs to be included in assignments.

A screenshot of a Google search interface. The search bar contains the text 'higher biology assignment instructions', which is circled in blue. Below the search bar, there are navigation tabs for 'All', 'Images', 'Short videos', 'Videos', 'News', 'Shopping', 'Web', and 'More'. The 'All' tab is selected. Below the tabs, there are filters for 'Any time', 'Verbatim', 'Advanced Search', and 'Clear'. The search results show a single result from SQA, with the URL 'https://www.sqa.org.uk › files_ccc › HigherCAT...' and a 'PDF' icon. The title of the result is 'Higher Biology Assignment Assessment task', which is also circled in blue. Below the title, there is a snippet of text: 'This document contains instructions for teachers and lecturers, marking instructions and instructions for candidates for the Higher Biology assignment. You ...' and '29 pages'.

ADVANCED HIGHER PROJECTS

- Ongoing throughout the course, written in home time – much more significant differences between the sciences so students should regularly and thoroughly refer to the ‘instructions for candidates’.
- To access this file you must download it as a PDF Scroll down to instructions for candidates to see what is expected of students.



Instructions for candidates

This assessment applies to the project for Advanced Higher Biology.

This project is worth 30 marks. This contributes 25% to the overall marks for the course assessment.

It assesses the following skills, knowledge and understanding:

- extending and applying knowledge of biology to new situations, interpreting and analysing information to solve complex problems
- planning and designing biological experiments/investigations, using reference material and including risk assessments to test a hypothesis or to illustrate particular effects
- carrying out complex experiments in biology safely, recording systematic detailed observations and collecting data
- selecting information from a variety of sources and presenting detailed information, appropriately, in a variety of forms
- processing and analysing biological information/data (using calculations, significant figures and units, where appropriate)
- making reasoned predictions and generalisations from a range of evidence/information
- drawing valid conclusions and giving explanations supported by evidence/justification
- critically evaluating experimental procedures by identifying sources of error and suggesting and implementing improvements
- drawing on knowledge and understanding of biology to make accurate statements, describe complex information, provide detailed explanations and integrate knowledge
- communicating biological findings/information fully and effectively
- analysing and evaluating scientific publications and media reports

This project has two stages:

- research
- report

Your teacher or lecturer will let you know if there are any specific conditions for doing this assessment.

In this project, you have to investigate a topic in biology by doing research. You will work individually to gather data/information from your own experiments and from internet/literature research. This may involve you carrying out a significant part of the work without supervision.

Your experimental research will involve planning experiments and gathering data. You should plan to spend a minimum of 15 hours doing this.

You will gather information from internet/literature sources to support your understanding of the underlying biology.

SQA Course Information



sqa national 5 biology

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SQA

<https://www.sqa.org.uk> › sqa ⋮

National 5 Biology - Course overview and resources

Find **SQA National 5 Biology** past papers, specimen question papers and course specification and important subject updates here.

SQA Course Information



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National 5 Biology

Biology

National 3

National 4

National 5

Higher

Adv Higher

Common Questions (16/01/25)



Course Specification (August 2022)



Explains the structure of the course, including its purpose and aims and information on the skills, knowledge and understanding that will be developed.

- [National 5 Biology Course Specification](#) 
August 2022

When is the exam?



Past Papers and Marking Instructions



Coursework



Understanding Standards (15/10/2024)



Course reports (29/10/2024)



Course support



Ushare open learning resources



SQA COURSE SPECIFICATION



National 5
Course
Specification



National 5 Biology

Course code:	C807 75
Course assessment code:	X807 75
SCQF:	level 5 (24 SCQF credit points)
Valid from:	session 2022–23

The course specification provides detailed information about the course and course assessment to ensure consistent and transparent assessment year on year. It describes the structure of the course and the course assessment in terms of the skills, knowledge and understanding that are assessed.

This document is for teachers and lecturers and contains all the mandatory information you need to deliver the course.

SQA COURSE SPECIFICATION



Contents

Course overview	1
Course rationale	2
Purpose and aims	2
Who is this course for?	3
Course content	4
Skills, knowledge and understanding	4
Skills for learning, skills for life and skills for work	13
Course assessment	14
Course assessment structure: question paper	14
Course assessment structure: assignment	16
Grading	20
Equality and inclusion	21
Further information	22
Appendix 1: course support notes	23
Introduction	23
Developing skills, knowledge and understanding	23
Approaches to learning and teaching	23
Preparing for course assessment	50
Developing skills for learning, skills for life and skills for work	50
Appendix 2: question paper brief	53

SQA COURSE SPECIFICATION



The key areas are from the course specification. The depth of knowledge required provides further detail of the key areas and an outline of the level of demand.

Note: The key areas **and** the depth of knowledge required **can be assessed in the question paper**.

Suggested learning activities are also provided. It is not compulsory that all are covered. The contexts for each key area are open to personalisation and choice, so centres may also devise their own learning activities. However, candidates must be given the opportunity to experience the use of the apparatus and the techniques listed below **as these can be assessed in the question paper**.

Cell biology		
Key areas	Depth of knowledge required	Suggested learning activities
1 Cell structure a Cell ultrastructure and functions — cell wall, mitochondrion, chloroplast, cell membrane, cytoplasm, vacuole, nucleus, ribosome and plasmid using examples from typical plant, animal, fungal and bacterial cells. b Cell wall is made of cellulose in plant cells but of different materials in fungal and bacterial cells.	 Fungal structure in terms of similarity to plant and animal cells but with a different cell wall structure. Structure of bacteria — absence of organelles and a different cell wall structure to plant and fungal cells. Chemical composition of cell walls for fungi and bacteria not required.	 ♦ Examine slides of a range of plant, animal and microbial cells using a light microscope/bioviewer, eg onion/rhubarb epidermis, cheek epithelium, yeast and prepared slides of bacterial cells. ♦ Numeracy activities on cell size to investigate cell length and breadth.

LITERACY IN SCIENCE



WRITING IN SCIENCE

Exams are 75% of the final grade, these involve students answers a range of questions relating to what has been learnt in science throughout the year. Assignments are 25% of the final grade in each science and this involves writing up a report

Past Paper practice

Including understanding what the SQA are actually asking (command words – explain, describe etc.) as often students don't answer the question.

Assignment Practice

Understanding standards document can be used to help understand and practice the layout of assignments.



READING IN SCIENCE

Alongside being able to read and understand key words, exams also include a lot of problem solving, which involves carefully reading through experimental design or text passages and using the information to answer questions.

Access to scientific text

Offer different ways to access scientific text e.g. articles, newspapers, past papers.

Text Analysis/ Past Paper Practice

Complete questions involving having to read a text and answer questions from it (SQA website).

Completion activities

Text/diagrams/Tables with missing words, this can also strengthen understanding scientific terminology.

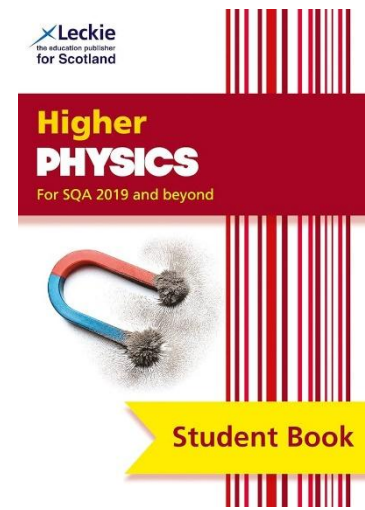
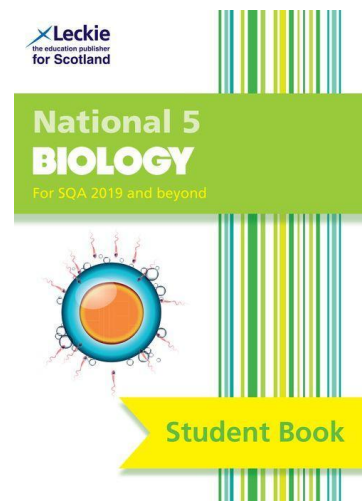
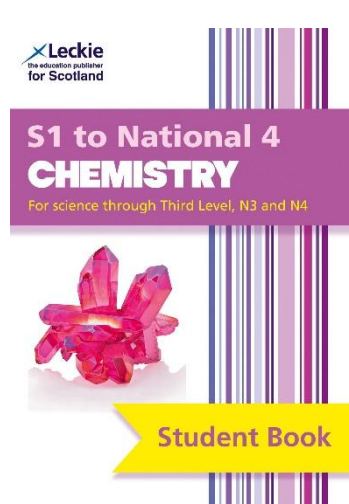


NUMERACY & PROBLEM SOLVING IN SCIENCE



RESOURCES

- Past paper practice <https://www.sqa.org.uk/pastpapers/findpastpaper.htm>
- Online resources e.g. <https://corbettmaths.com/contents/> , <https://www.bbc.co.uk/bitesize/learn>
- Textbooks e.g. James Torrance, Leckie Student book



PROBLEM SOLVING IN SCIENCE

Problem solving in science is looking for students to be able to analyse information (such as a graph, results table or experimental design) and provide answers based on this.

Problem solving based questions may ask students to:

- Make predictions based on a set of information
- Select correct information from a set of data
- Draw valid conclusions
- Evaluate experimental procedures/designs
- Communicate findings by making accurate statements
- Linking information to what has been learnt in class



RESOURCES

- Past Paper Questions <https://www.sqa.org.uk/pastpapers/findpastpaper.htm>
- Textbooks e.g. James Torrance, Leckie

Past papers and marking instructions

Find past papers and marking instructions for your revision. You can search by topic and or refine by subject and level. To add the matching marking instructions simply tick the box.

We provide up to five years of past papers.

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Include Marking Instructions Reset the search form

BIOLOGY



Skills, knowledge and understanding

Skills, knowledge and understanding for the course

The following provides a broad overview of the subject skills, knowledge and understanding developed in the course:

- ◆ demonstrating knowledge and understanding of biology by making statements, describing information, providing explanations and integrating knowledge
- ◆ applying knowledge of biology to new situations, interpreting information and solving problems
- ◆ planning, designing and safely carrying out experimental/fieldwork investigations to test given hypotheses or to illustrate particular effects
- ◆ selecting information from a variety of sources
- ◆ presenting information appropriately in a variety of forms
- ◆ processing information (using calculations and units, where appropriate)
- ◆ making predictions and generalisations based on evidence/information
- ◆ drawing valid conclusions and giving explanations supported by evidence/justification
- ◆ suggesting improvements to experimental/fieldwork investigations
- ◆ communicating findings/information

BIOLOGY KEY POINTS -

- Past Paper Practice is key!
- Don't neglect practicing numeracy, experimental design and problem solving!
- Word Banks are extremely useful as this is a terminology heavy subject.
- Study Clubs run throughout the entire week with different Biology teachers.

- **N5 Biology exam: 28th April 2026 13.00 - 15.30**

- **Higher & Higher Human Biology: 28th April 2026**
 - Paper 1: 09.00 – 09.40 Paper 2: 10.10 – 12.30

- **Advanced Higher: 28th April 2026 0900 – 12.00**

PHYSICS



Skills, knowledge and understanding

Skills, knowledge and understanding for the course

The following provides a broad overview of the subject skills, knowledge and understanding developed in the course:

- ◆ demonstrating knowledge and understanding of physics by making accurate statements
- ◆ demonstrating knowledge and understanding of physics by describing information and providing explanations and integrating knowledge
- ◆ applying knowledge of physics to new situations, interpreting information and solving problems
- ◆ planning or designing experiments to test given hypotheses or to illustrate particular effects, including safety measures
- ◆ carrying out experimental procedures safely
- ◆ selecting information from a variety of sources

- ◆ presenting information appropriately in a variety of forms
- ◆ processing information (using calculations and units, where appropriate)
- ◆ making predictions based on evidence/information
- ◆ drawing valid conclusions and giving explanations supported by evidence/justification
- ◆ evaluating experimental procedures
- ◆ suggesting improvements to experiments/practical investigations
- ◆ communicating findings/information

CHEMISTRY KEY POINTS -

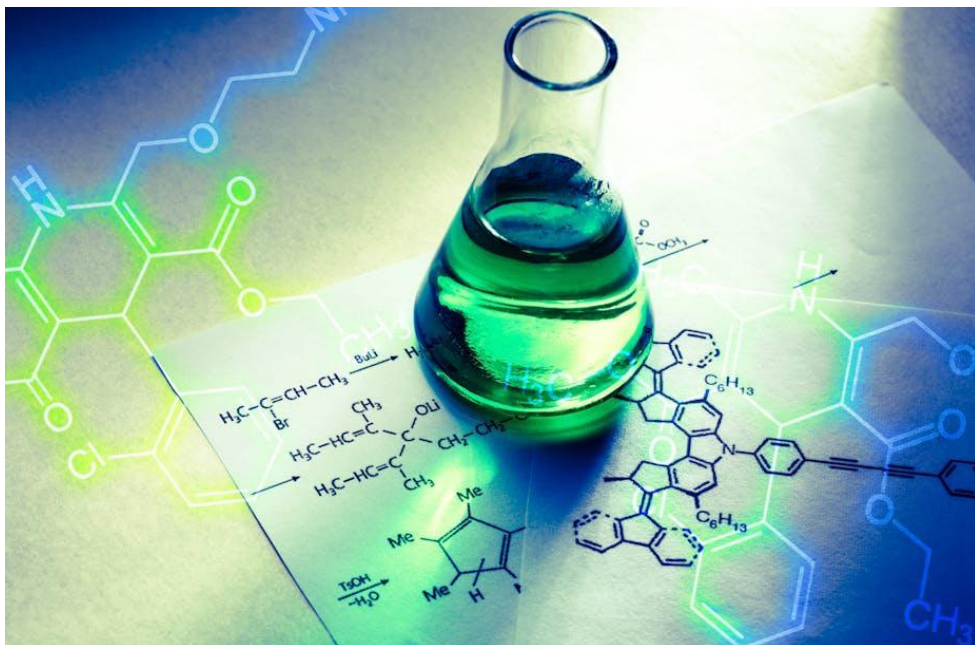
- Past Paper Practice is key!
- Repetitive practice calculations by using the Leckie and Leckie textbooks will help form routines in approaching questions.
- Don't avoid practicing Using You Knowledge of Chemistry Questions (3 marks). Read the questions, write a few bullet points of relevant information and then expand each bullet point with further information, diagrams or word equations.
- Study Clubs run throughout the entire week with different Chemistry teachers.

- **N5 Chemistry exam: 12th May 2026 13.00 - 15.30**

- **Higher Chemistry: 12th May 2026**
 - Paper 1: 09.00 – 09.40 Paper 2: 10.10 – 12.30

- **Advanced Higher: 12th May 2026 0900 – 12.00**

CHEMISTRY



Skills, knowledge and understanding

Skills, knowledge and understanding for the course

The following provides a broad overview of the subject skills, knowledge and understanding developed in the course:

- ◆ demonstrating knowledge and understanding of chemistry by making accurate statements
- ◆ demonstrating knowledge and understanding of chemistry by describing information and providing explanations and integrating knowledge
- ◆ applying knowledge of chemistry to new situations, interpreting information and solving problems
- ◆ planning or designing experiments to test given hypotheses or to illustrate particular effects, including safety measures
- ◆ carrying out experimental procedures safely
- ◆ selecting information from a variety of sources
- ◆ presenting information appropriately in a variety of forms
- ◆ processing information (using calculations and units, where appropriate)
- ◆ making predictions and generalisations based on evidence/information
- ◆ drawing valid conclusions and giving explanations supported by evidence/justification
- ◆ evaluating experimental procedures
- ◆ suggesting improvements to experiments/practical investigations
- ◆ communicating findings/information

PHYSICS KEY POINTS -

- Past Paper Practice is key!
- Practice substituting values correctly into equations and rearranging these equations for the subject in the question.
- Don't avoid practicing Using You Knowledge of Physics Questions (3 marks). Read the questions, write a few bullet points of relevant information and then expand each bullet point with further information, diagrams or relevant equations.
- Understand how to manipulate equations to show a relationship on a graph (Changing an equation to show a relationship from a given graph)
- Study Clubs run throughout the entire week with different Physics teachers.

- **N5 Physics exam:** 21st May 2026 13.00 - 15.30

- **Higher Chemistry:** 21st May 2026
 - Paper 1: 09.00 – 09.45 Paper 2: 10.15 – 12.30

- **Advanced Higher:** 21st May 2026 0900 – 12.00

RESOURCES

- ACHIEVE
- BBC Bitesize
- Blooket/Kahoots
- SQA website
- Google Classroom (resources included will differ between teachers but resources can be requested – limited to what is available)
- Textbooks e.g. leckie x leckie
- Experiential learning e.g. the museum, the beach, seabird centre etc.

