



Rewarding Learning

**GCSE**  
**Single Award**  
**Science**

**STUDENT**  
**GUIDE**



# INTRODUCTION

This CCEA specification in GCSE Single Award Science provides a broad, coherent and practical course that develops confidence in and a positive view of science. It encourages you to appreciate the value of science in your life and in the wider world.

## WHY STUDY SINGLE AWARD SCIENCE?

This specification aims to encourage you to:

- develop your knowledge and understanding of the material, physical and living worlds;
- develop your understanding of the nature of science and its applications and the interrelationships between science and society;
- develop your understanding of the relationships between hypotheses, evidence, theories and explanations;
- develop and apply your observational, practical, enquiry and problem-solving skills and understanding in laboratory, field and other learning environments;
- develop your ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions; and
- develop your skills in communication, mathematics and the use of technology in scientific contexts.

## UNIQUE FEATURES OF THIS QUALIFICATION?

Units 1, 2 and 3 include a number of practical tasks that you carry out during the course. Nine of these are prescribed practicals. Unit 4 has two parts: Booklet A and Booklet B. CCEA set and mark both booklets.

CCEA sciences are the only specifications to examine practical skills, as these are an important element within the subject.



# HOW WILL I BE ASSESSED?\*

UNIT	AREAS OF STUDY
<b>Unit 1: Biology</b>	External written examination Foundation and Higher Tiers: 1 hour Students answer compulsory structured questions that include short responses, extended writing and calculations.
<b>Unit 2: Chemistry</b>	External written examination Foundation and Higher Tiers: 1 hour Students answer compulsory structured questions that include short responses, extended writing and calculations.
<b>Unit 3: Physics</b>	External written examination Foundation and Higher Tiers: 1 hour Students answer compulsory structured questions that include short responses, extended writing and calculations.
<b>Unit 4: Practical Skills</b>	<p><b>Booklet A</b> Practical skills assessment Foundation and Higher Tiers: 2 hours Students carry out two pre-release practical tasks (from two of Biology, Chemistry and Physics) in the final year of study.</p> <p><b>Booklet B</b> External written examination Foundation Tier: 1 hour Higher Tier: 1 hour 15 mins Students answer compulsory structured questions that include short responses, extended writing and calculations all set in a practical context for Biology, Chemistry and Physics.</p>

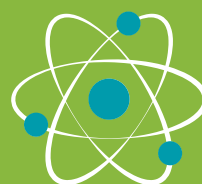
\*The information in this table is still subject to regulatory approval.



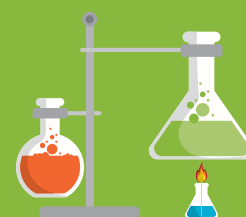
Unit 1  
**Biology**



Unit 2  
**Chemistry**



Unit 3  
**Physics**



Unit 4  
**Practical Skills**

## WHAT CROSS-CURRICULAR SKILLS, THINKING SKILLS AND PERSONAL CAPABILITIES WILL I DEVELOP?



This specification builds on the learning experiences from Key Stage 3 as required for the statutory Northern Ireland Curriculum. It also gives you opportunities to contribute to the aim and objectives of the Curriculum at Key Stage 4, and to continue to develop the Cross-Curricular Skills and the Thinking Skills and Personal Capabilities. The extent of the development of these skills and capabilities will be dependent on the teaching and learning methodology used.

## WHAT CAN I DO WITH A QUALIFICATION IN SINGLE AWARD SCIENCE?

The specification provides a broad overview of key aspects of chemistry, biology and physics and an introduction to scientific methodology and key practical skills. This course provides foundations for study of a wide variety of scientific and other courses at GCE Advanced level and Advanced Subsidiary level. It also allows you to develop transferable skills that will benefit you in vocational training and employment.

Science is crucial to understanding the world around us and understanding the challenges and benefits of living at a time when significant scientific discoveries happen every day.

Science challenges our imaginations with developments in nanotechnologies, and it leads to significant discoveries, such as computers and lasers, and technologies that change our lives – from replacing worn out joints to curing cancer and developing sustainable energy solutions.



