

Separate Sciences and Trilogy Year 10

Exam Board: AQA

Curriculum Overview						
GCSE order of units for year 10						
Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Biology	Bioenergetics	Homeostasis and response	Homeostasis and response	Inheritance, variation and evolution	Inheritance, variation and evolution	Revision
Chemistry	Bonding	Chemical Changes	Quantitative chemistry	Rates of reaction	Energy changes	Atmosphere
Physics	Energy	Electricity	Radioactivity	Forces	Forces	Particle model
Subject Specific Skills						
<p>Assessment objectives across all three sciences:</p> <p>AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.</p> <p>AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.</p> <p>AO3: Analyse information and ideas to: interpret and evaluate; make judgements and draw conclusions; develop and improve experimental procedures.</p> <p>Subject specific skills</p> <p>Students will develop scientific knowledge and conceptual understanding of biology, chemistry and physics. To create an understanding of the nature, processes and methods of science through different types of scientific enquiries that help them to answer scientific questions about the world around them. They will learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments. A key skill is developing their ability to evaluate claims based on science through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively across all three sciences. Each science carries a 10-20% mathematical requirement, the standard of this will be comparable to GCSE maths.</p>						
Methods of Assessment and Exam Structure						
<p>Each examination has a 50% weighting. Students will complete required practical tasks throughout the two years which will be assessed within the exam papers. All papers are offered at a higher and foundation tier.</p>						

Biology

Paper 1 covers topics 1-4

Cell biology
Organisation
Infection and response
Bioenergetics

Paper 2 Covers topics 5-7

Homeostasis and response
Inheritance, variation and evolution
Ecology

Chemistry

Paper 1 covers topics 1-5

Atomic structure and the periodic table
Bonding, structure, and the properties of matter
Quantitative chemistry
Chemical changes
Energy changes

Paper 2 covers topics 6-10

The rate and extent of chemical change
Organic chemistry
Chemical analysis
Chemistry of the atmosphere
Using resources

Physics

Paper 1 covers topics 1 – 4:

Energy
Electricity
Particle model of matter
Atomic structure.

Paper 2 covers topics 5 – 8:

Forces
Waves
Magnetism and electromagnetism
Space physics.
Combined science Trilogy follows the same topics per examination.

The Science Faculty

For more information, please contact your child's science teacher as they will be able to answer any questions. However, you may also contact the following for subject specific support.

Ms A Dale - Faculty Leader for Science a.dale@nishkamschools.org

Mrs S Dhanda – Subject Leader for Biology s.dhanda@nishkamschools.org

Mr T Dowthwaite - Subject Leader for Physics t.dowthwaite@nishkamschools.org

Ms S Riaz – Subject Leader for Chemistry s.riaz@nishkamschools.org

Mrs B Ridley – Teacher of Chemistry

Ms A Hafeez – Teacher of Biology

Ms A Kaur – Teacher of Biology/Chemistry

Ms R Argent – Teacher of Physics

Mr N Creswell – Teacher of Physics
Ms E Hawkey – Senior Science Technician

How parents and carers can help

<http://www.aqa.org.uk/subjects/science/gcse>

AQA GCSE Biology specification (8461)

AQA GCSE Chemistry specification (8462)

AQA GCSE Physics specification (8463)

AQA GCSE Combine Science Trilogy (8464)

Useful websites:

<http://www.my-gcsescience.com>

<http://www.revisionworld.co.uk>

<http://www.creative-chemistry.org.uk/>

http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/

<http://www.s-cool.co.uk/gcse>

Recommended revision practice books

AQA GCSE Biology Revision Guide (Collins GCSE Revision and Practice: New Curriculum) (Collins GCSE Revision and Practice: New 2016 Curriculum) **ISBN-13:** 978-0008160678

AQA GCSE Chemistry Revision Guide (Collins GCSE Revision and Practice: New Curriculum) (Collins GCSE Revision and Practice: New 2016 Curriculum) **ISBN-13:** 978-0008160685

AQA GCSE Physics Revision Guide (Collins GCSE Revision and Practice: New Curriculum) (Collins GCSE Revision and Practice: New 2016 Curriculum) **ISBN-13:** 978-0008160692

AQA GCSE Combined Science Trilogy Revision Guide (Collins GCSE Revision and Practice: New Curriculum) **ISBN-13:** 978-0008160791

Separate Sciences and Trilogy Year 11

Exam Board: AQA

Curriculum Overview					
Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Biology	Homeostasis	Inheritance and variation	January Mock Ecology Revision	Revision	Examination
Chemistry	Organic Chemistry	Chemical analysis	January Mock Using resources Revision	Revision	Examination
Physics	Forces	Waves Electromagnetic Spectrum	January Mock Space Revision	Revision	Examination
Subject Specific Skills					
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