GCSE Biology

Course Specifications

Course Title: Separate sciences biology

Exam Board: AQA

Link to specification:

Grading: 9-1

What will you learn?

Year 10

Autumn

Cells and Organisation

- Cell structure and transport
- Cell division
- Human digestive system
- Organisation in animals and plans

Spring

Disease and Bioenergetics

- Communicable diseases
- Preventing and treating diseases
- Non-Communicable diseases
- Photosynthesis
- Respiration

Summer

Ecology 1

- Adaptation, interdependence, and competition
- Organising and ecosystem

Year 11

Autumn

Ecology 2

- Biodiversity and Ecosystems

Biological Responses

- The human nervous system
- Hormonal coordination
- Maintaining balance in the body

Spring

Genetics and Reproduction

- Reproduction and Genetics inheritance
- Variation and Selection
- Evolution and Classification

Summer

Preparation for Summer exams

How will you be assessed?
During the course:
Year 10: Progress checks, End of unit assessments, Mid-year exams **Year 11:** Progress checks, end of unit assessments, PPE 1, PPE 2
At the end of the course: **Your final grade will be awarded based on the following examinations and / or coursework.**
Paper 1: Topics 1 – 4: Cell biology; Organisation; Disease and Bioenergetics. • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50 % of GCSE **Paper 2:** **Topics 5 – 7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.** • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50 % of GCSE

What independent work can you do?
Learn:
Glossary of Key Terms: Eukaryotic, Prokaryotic, Resolution, Magnification, Hormones, Synapse, Neurotransmitters, Trophism, interdependence, biodiversity, Domains, Classification
RAG and Revisit:
PLCs
Explore:
Recommended Reading: Anatomy. H Druvert & JC Druvert The Private Life of Plants. David Attenborough, Insectpedia: A Brief Compendium of Insect Lore

Revise:
Top tips and strategies
Prepare:
Exam papers, VIPzone

Which resources should you use?
Textbooks, websites, online resources
Kerboodle **AQA Website** **Maths and Physics tutor** **Seneca** **GCSE POD**

GCSE Chemistry

Course Specifications

Course Title: Separate Sciences Chemistry

Exam Board: AQA

Link to specification:

Grading: 9-1

What will you learn?

Year 10

Autumn

- Atomic structure
- The Periodic table
- Structure and bonding
- Chemical calculations

Spring

- Chemical changes
- Electrolysis
- Energy changes
- Rates and eqbm

Summer

- Crude oils and fuels
- Organic reactions
- Polymers

Year 11

Autumn

- Crude oils and fuels
- Organic reactions
- Polymers
- Chemical Analysis
- The earth's atmosphere

Spring

- The earth's resources
- Using our resources

Summer

Preparation for Summer exams

How will you be assessed?
During the course:
Year 10: Progress checks and Mid-year exams **Year 11:** Progress checks and PPE 1, PPE 2
At the end of the course: **Your final grade will be awarded based on the following examinations and / or coursework.**
Paper 1: Topics Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry, Chemical changes; and Energy changes. • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50 % of GCSE **Paper 2: Topics 6–10: The rate and extent of chemical change; Organic chemistry; Chemical analysis, Chemistry of the atmosphere; and Using resources.** • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50 % of GCSE

What independent work can you do?
Learn:
• keywords and meaning for the keywords using glossary available on kerboodle for each topic. • Learn the formulas for the chemical calculation topic • Learn the reactivity series
RAG and Revisit:
PLCs SPARX Science Kerboodle interactive activities
Explore:
Recommended Reading: **Chemistry for Breakfast: The Amazing Science of Everyday Life** **Binding Blocks: Building the Universe One Nucleus at a Time** **Cambridge University Chemistry Library**

Revise:
Top tips and strategies: Know the AQA Chemistry specification and use a checklist. Learn key definitions and scientific terms with flashcards. Use knowledge organisers to summarise facts and formulas. Practice past papers under timed conditions and review mark schemes. Understand command words like *describe*, *explain*, and *calculate*. Master all required practicals and related exam questions. Revise chemistry-related maths topics (e.g., formulas, moles). Use diagrams and visuals to aid understanding and memory. Break complex topics into smaller parts and use real-life examples. Plan revision with a timetable and revise consistently over time. Utilise online resources like BBC Bitesize, Seneca Learning, and YouTube channels. On exam day: read questions carefully, start with easy ones, show workings, manage time, and check answers.
Prepare:
Exam papers, VIP zone

Which resources should you use?
Textbooks, websites, online resources
Kerboodle **AQA Website** **Maths and Physics tutor** **Seneca**

VIP ZONE

My GCSE Science (for year 11 only)

Study mind for exam questions per topic

GCSE Physics

Course Specifications

Course Title: Separate sciences Physics

Exam Board: AQA

Link to specification:

Grading: 9-1

Course Details

What will you learn?

Year 10

Autumn

- Energy
- Electricity

Spring

- Particle model of matter
- Atomic Structure

Summer

- Forces

Year 11

Autumn

- Forces
- Waves

Spring

- Magnetism and electromagnetism
- Space Physics

Summer

- Preparation for Summer Exams

How will you be assessed?
During the course:
Year 10: Progress checks, End of unit assessments, Mid-year exams **Year 11: Progress checks, End of unit assessments, PPE1 and PPE2**
At the end of the course: **Your final grade will be awarded based on the following examinations and / or coursework.**
<u>Paper 1:</u> **Topics: Energy, Electricity, Particle Model of Matter and Atomic Structure** • **Written exam: 1 hour 45 minutes** • **Foundation and Higher Tier** • **100 marks** • **50% of GCSE** **<u>Paper 2:</u>** **Topics: Forces, Waves, Magnetism and Electromagnetism and Space Physics** • **Written exam: 1 hour 45 minutes** • **Foundation and Higher Tier** • **100 marks** • **50% of GCSE**

What independent work can you do?
Learn:
• Learn the prefixes for multiples • Learn the required practical methods • Learn the physics formulas that are not given in exam and understand how to rearrange them • Keywords and meaning for the keywords using glossary available on Kerboodle for each topic.
RAG and Revisit:
PLCs
Explore:
Isaac Physics and IOP Newsletters

Revise:

Top tips and strategies:

- Learn the prefixes for multiples
- Learn the required practical methods
- Practice as many exam papers as possible

Prepare: Exam papers

Which resources should you use?

Textbooks, websites, online resources

Equation Sheet

ScienceDoctor Booklets

Save my exams

Cognito

Seneca

Maths and physics tutor

Free science lessons Playlist on Energy

Free science lessons Playlist on Electricity

Free science lessons Playlist on Molecules & Matter

Free science lessons Playlist on Radioactivity

Free science lessons Playlist on Forces

Free science lessons Playlist on Waves

Free science lessons Playlist on Magnetism

Free science lessons Playlist on Space

Past Papers

Physics Past Papers – Paper 1

Physics Past Papers – Paper 2

Summary Video

VIP ZONE