



## **GCSE SCIENCE**

### **Revision checklist**

B2

C2

P2

## Part 3

## BIOLOGICAL RESPONSES

Text Book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>B10 – The human nervous system</b>				
10.1	Principles of homeostasis				
10.2	The structure and function of the nervous system				
10.3	Reflex action				
10.4	<i>The brain (GCSE BIO only)</i>				
10.5	<i>The eye (GCSE BIO only)</i>				
10.6	<i>Common problems of the eye (GCSE BIO only)</i>				
	<b>B11 – Hormonal coordination</b>				
11.1	Principles of hormonal control				
11.2	The control of blood glucose levels				
11.3	Treating diabetes				
11.4	The role of negative feedback (H tier)				
11.5	Human reproduction				
11.6	Hormones and the menstrual cycle (H tier)				
11.7	The artificial control of fertility				
11.8	Infertility treatments (H tier)				
11.9	<i>Plant hormones and responses (GCSE BIO only)</i>				
11.10	<i>Using plant hormones (GCSE BIO only)</i>				
	<b>B12 – Homeostasis in action (GCSE BIO only)</b>				
12.1	<i>Controlling body temperature</i>				
12.2	<i>Removing waste products</i>				
12.3	<i>The human kidney</i>				
12.4	<i>Dialysis – an artificial kidney</i>				
12.5	<i>Kidney transplants</i>				

## Part 4

## GENETICS AND REPRODUCTION

Text Book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>B13 – Reproduction</b>				
13.1	Types of reproduction				
13.2	Cell division in sexual reproduction				
13.3	<i>The best of both worlds (GCSE BIO only)</i>				
13.4	DNA and the genome				
13.5	<i>DNA structure &amp; protein synthesis (GCSE BIO only)</i>				
13.6	<i>Gene expression and mutation (GCSE BIO only)</i>				
13.7	Inheritance in action				
13.8	More about genetics				
13.9	Inherited disorders				
13.10	Screening for genetic disorders				

**GENETICS AND REPRODUCTION continued**

Text book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>B14 – Variation and evolution</b>				
14.1	Variation				
14.2	Evolution by natural selection				
14.3	Selective breeding				
14.4	Genetic engineering				
14.5	<i>Cloning (GCSE BIO only)</i>				
14.6	<i>Adult cell cloning (GCSE BIO only)</i>				
14.7	Ethics of genetic technologies				
	<b>B15 – Genetics and evolution</b>				
15.1	<i>The history of genetics (GCSE BIO only)</i>				
15.2	<i>Theories of evolution (GCSE BIO only)</i>				
15.3	<i>Accepting Darwin's ideas (GCSE BIO only)</i>				
15.4	<i>Evolution and speciation (GCSE BIO only)</i>				
15.5	Evidence for evolution				
15.6	Fossils and extinction				
15.7	More about extinction				
15.8	Antibiotic resistant bacteria				
15.9	Classification				
15.10	New systems of classification				
	<b>B16 – Adaptations, interdependence and competition</b>				
16.1	The importance of communities				
16.2	Organisms in their environment				
16.3	Distribution and abundance				
16.4	Competition in animals				
16.5	Competition in plants				
16.6	Adapt and survive				
16.7	Adaptation in animals				
16.8	Adaptations in plants				
	<b>B17 – Organising an ecosystem</b>				
17.1	Feeding relationships				
17.2	Materials cycling				
17.3	The carbon cycle				
17.4	<i>Rates of decomposition (GCSE BIO only)</i>				
	<b>B18 – Biodiversity and ecosystems</b>				
18.1	The human population explosion				
18.2	Land and water pollution				
18.3	Air pollution				
18.4	Deforestation and peat destruction				
18.5	Global warming				
18.6	<i>The impact of change (GCSE BIO only)</i>				
18.7	Maintaining biodiversity				
18.8	<i>Trophic levels and biomass (GCSE BIO only)</i>				
18.9	<i>Biomass transfers (GCSE BIO only)</i>				
18.10	<i>Factors affecting food security (GCSE BIO only)</i>				
18.11	<i>Making food production efficient (GCSE BIO only)</i>				
18.12	<i>Sustainable food production (GCSE BIO only)</i>				

### Part 3

#### RATES, EQUILIBRIUM AND ORGANIC CHEMISTRY

Text book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>C8 – Rates and equilibrium</b>				
8.1	Rates of reaction				
8.2	Collision theory and surface area				
8.3	The effect of temperature				
8.4	The effect of concentration and pressure				
8.5	The effect of catalysts				
8.6	Reversible reactions				
8.7	Energy and reversible reactions				
8.8	Dynamic equilibrium				
8.9	Altering conditions (H tier)				
	<b>C9 – Crude oil and fuels</b>				
9.1	Hydrocarbons				
9.2	Fractional distillation of oil				
9.3	Burning hydrocarbon fuels				
9.4	Cracking hydrocarbons				
	<b>C10 – Organic reactions (GCSE CHEM only)</b>				
10.1	<i>Reactions of the alkenes</i>				
10.2	<i>Structures of alcohols, carboxylic acids and esters</i>				
10.3	<i>Reactions and uses of alcohols</i>				
10.4	<i>Carboxylic acids and esters</i>				
	<b>C11 – Polymers (GCSE CHEM only)</b>				
11.1	<i>Addition polymerisation</i>				
11.2	<i>Condensation polymerisation</i>				
11.3	<i>Natural polymers</i>				
11.4	<i>DNA</i>				

## Part 4

## ANALYSIS AND THE EARTH'S RESOURCES

Text book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>C12 – Chemical analysis</b>				
12.1	Pure substances and mixtures				
12.2	Analysing chromatograms				
12.3	Testing for gases				
12.4	<i>Tests for positive ions (GCSE CHEM only)</i>				
12.5	<i>Tests for negative ions (GCSE CHEM only)</i>				
12.6	<i>Instrumental analysis (GCSE CHEM only)</i>				
	<b>C13 – The Earth's atmosphere</b>				
13.1	History of our atmosphere				
13.2	Our evolving atmosphere				
13.3	Greenhouse gases				
13.4	Global climate change				
13.5	Atmospheric pollutants				
	<b>C14 – The Earth's resources</b>				
14.1	Finite and renewable resources				
14.2	Water safe to drink				
14.3	Treating waste water				
14.4	Extracting metals from ores (H tier)				
14.5	Life cycle assessments				
14.6	Reduce, reuse, recycle				
	<b>C15 – Using our resources (GCSE CHEM only)</b>				
15.1	<i>Rusting</i>				
15.2	<i>Useful alloys</i>				
15.3	<i>The properties of polymers</i>				
15.4	<i>Glass, ceramics and composites</i>				
15.5	<i>Making ammonia – The Haber process</i>				
15.6	<i>The economics of the Haber process</i>				
15.7	<i>Making fertilizers in the lab</i>				
15.8	<i>Making fertilizers in industry</i>				

## Part 3

## FORCES IN ACTION

Text Book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>P8 – Forces in balance</b>				
8.1	Vectors and scalars				
8.2	Forces between objects				
8.3	<i>Resultant forces (GCSE Phys only)</i>				
8.4	<i>Moments at work (GCSE Phys only)</i>				
8.5	<i>More about levers and gears (GCSE Phys only)</i>				
8.6	Centre of mass				
8.7	Moments and equilibrium (GCSE Phys only)				
8.8	The parallelogram of forces (H tier)				
8.9	Resolution of forces (H tier)				
	<b>P9 – Motion</b>				
9.1	Speed and distance-time graphs				
9.2	Velocity and acceleration				
9.3	More about velocity-time graphs				
9.4	Analysing motion graphs				
	<b>P10 – Force and motion</b>				
10.1	Force and acceleration				
10.2	Weight and terminal velocity				
10.3	Forces and braking				
10.4	Momentum (H tier)				
10.5	<i>Using conservation of momentum (GCSE Phys only)</i>				
10.6	<i>Impact forces (GCSE Phys only)</i>				
10.7	<i>Safety first (GCSE Phys only)</i>				
10.8	Forces and elasticity				
	<b>P11 – Force and pressure (GCSE Phys only)</b>				
11.1	<i>Pressure and surfaces</i>				
11.2	<i>Pressure in a liquid at rest</i>				
11.3	<i>Atmospheric pressure</i>				
11.4	<i>Upthrust and floatation</i>				

## Part 4

## WAVES, ELECTROMAGNETISM AND SPACE

Text Book	Topic and lesson titles	Learnt Key Words?	Revision Notes done?	Reviewed Notes? ✓✓✓✓✓	Past Paper Questions?
	<b>P12 – Wave properties</b>				
12.1	The nature of waves				
12.2	The properties of waves				
12.3	Reflection and refraction (H tier)				
12.4	More about waves				
12.5	<i>Sound waves (GCSE Phys only)</i>				
12.6	<i>The uses of ultrasound (GCSE Phys only)</i>				
12.7	<i>Seismic waves (GCSE Phys only)</i>				
	<b>P13 – Electromagnetic waves</b>				
13.1	The electromagnetic spectrum				
13.2	Light, infrared, microwaves and radio waves				
13.3	Communications				
13.4	Ultraviolet waves, X-rays and gamma rays				
13.5	X-rays in medicine				
	<b>P14 – Light (GCSE Phys only)</b>				
14.1	<i>Reflection of light</i>				
14.2	<i>Refraction of light</i>				
14.3	<i>Light and colour</i>				
14.4	<i>Lenses</i>				
14.5	<i>Using lenses</i>				
	<b>P15 – Electromagnetism</b>				
15.1	Magnetic fields				
15.2	Magnetic fields of electric currents				
15.3	<i>Electromagnets in devices (GCSE Phys only)</i>				
15.4	The motor effect (H tier)				
15.5	<i>The generator effect (GCSE Phys only)</i>				
15.6	<i>The alternating-current generator (GCSE Phys only)</i>				
15.7	<i>Transformers (GCSE Phys only)</i>				
15.8	<i>Transformers in action (GCSE Phys only)</i>				
	<b>P16 – Space (GCSE Phys only)</b>				
16.1	<i>Formation of the Solar System</i>				
16.2	<i>The life history of a star</i>				
16.3	<i>Planets, satellites and orbits</i>				
16.4	<i>The expanding universe</i>				
16.5	<i>The beginning and future of the Universe</i>				