

GCSE Science Revision 2017/2018

Date:	Biology:	Chemistry:	Physics:
09/10	1.1 The light microscope (p.14) 1.2 Looking at cells (p.16) 1.3 Practical: Using a light microscope to observe and record animal and plant cells (p.18)	1.1 Three states of matter (p. 14) 1.2 Changing ideas about atoms (p. 16) 1.3 Modelling the atom (p. 18) 1.4 Key Concept: Sizes of particles and orders of magnitude (p. 20) 1.5 Relating charges and masses (p. 22) 1.6 Subatomic particles (p. 24) 1.7 Maths skills: Standard form and making estimates (p. 26)	1.1 Key concept: Developing ideas for the structure of the atom (p.14) 1.2 Density (p. 14) 1.3 Key concept: Particle model and changes of state (p.18) 1.4 Practical: to investigate the densities of regular and irregular solid objects and liquids (p.20)
16/10	1.4 Primitive cells (p.20) 1.5 Looking at cells in more detail (p.22) 1.6 Maths skills: Size and number (p.24)	2.1 Key concept: Pure substances (p. 34) 2.2 Relative formula mass (p. 36) 2.3 Mixtures (p. 38) 2.4 Formulations (p. 40)	1.5 Changes of state (p.22) 1.6 Internal energy (p. 24) 1.7 Specific heat capacity (p. 26)
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30/10	1.7 The structure of DNA (p.26) 1.8 Explaining enzymes (p.28) 1.9 Practical: Investigate the effect of pH on the rate of reaction of amylase enzyme (p.30)	2.5 Chromatography (p. 42) 2.6 Practical: Investigate how paper chromatography can be used in forensic science to identify an ink mixture used in a forgery (p. 44) 2.7 Maths skills: Use an appropriate number of significant figures (p. 46)	1.8 Specific latent heat (p. 28) 1.9 Maths skills: Drawing and interpreting graphs (p. 30) 1.10 Practical: Investigating specific heat capacity (p. 32)
06/11	1.10 Cells at work (p.32) 1.11 Living without oxygen (p.34) 1.12 Enzymes at work (p.36)	2.8 Comparing metals and non-metals (p. 48) 2.9 Electron structure (p. 50) 2.10 Metals and non-metals (p. 52)	1.11 Particle motion in gases (p. 34) 1.12 Maths skills: Handling data (p. 36)
13/11	1.13 Looking at photosynthesis (p.38) 1.14 Explaining photosynthesis (p.40) 1.15 Practical: Investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed (p.42) 1.16 Increasing photosynthesis (p.44) 1.17 Maths skills: Extracting and interpreting information (p.46)	2.11 Chemical bonds (p. 54) 2.12 Ionic bonding (p. 56) 2.13 Ionic compounds (p. 58) 2.14 Properties of ionic compounds (p. 60) 2.15 Properties of small molecules (p. 62)	2.1 Scalars and vectors (p. 44) 2.2 Speed (p. 46) 2.3 Acceleration (p. 48)
20/11	2.1 Key concept: Diffusion in living systems (p.56) 2.2 Explaining water movement (p.58) 2.3 Learning about active transport (p.60)	2.16 Covalent bonding (p. 64) 2.17 Giant covalent structures (p. 66) 2.18 Polymer structures (p. 68)	2.4 Calculations of motion (p. 50) 2.5 Velocity–time graphs (p. 52) 2.6 Maths skills: Making estimates of calculations (p. 54)
27/11	2.4 Cell division (p.62) 2.5 Cell differentiation (p.64) 2.6 Stem cells (p.66) 2.7 Key concept: Cell development (p.68)	2.19 Metallic bonding (p. 70) 2.20 Properties of metals and alloys (p. 72) 2.21 Key concept: The outer electrons (p. 74) 2.22 The periodic table (p. 76) 2.23 Developing the periodic table (p. 78)	2.7 Forces explain how objects interact (p. 56) 2.8 Forces and motion (p. 58) 2.9 Resultant forces (p. 60)
04/12	2.8 Key concept: Investigating the need for transport systems (p.70) 2.9 Learning about the circulatory system (p.72) 2.10 Investigating gaseous exchange (p.74) 2.11 Exploring the heart (p.76) 2.12 Studying blood (p.78)	2.24 Diamond (p. 80) 2.25 Graphite (p. 82) 2.26 Graphene and fullerenes (p. 84) 2.27 Maths skills: Using ratios in mixture, empirical formulae and balanced equations (p. 86)	2.10 Forces and acceleration (p. 62) 2.11 Momentum (p. 64) 2.12 Practical: Investigating the acceleration of an object (p. 66)
11/12	MOCKS		

18/12	2.13 Investigating leaves (p.80) 2.14 Learning about plants and minerals (p.82) 2.15 Looking at stomata (p.84)	3.1 Elements and compounds (p. 94) 3.2 Atoms, formulae and equations (p. 96) 3.3 Moles (p. 98) 3.4 Key concept: Conservation of mass and balanced equations (p. 100)	2.13 Newton's third law (p. 68) 2.14 Work done and energy transfer (p. 70)
Christmas Revision Catch Up			
08/01	2.16 Moving water (p.86) 2.17 Moving sugar (p.88) 2.18 Investigating transpiration (p.90) 2.19 Maths skills: Surface area to volume ratio (p.92)	3.5 Test for gases (p. 102) 3.6 Mass changes when gases are in reactions (p. 104) 3.7 Using moles to balance equations (p. 106)	2.15 Understanding power (p. 72) 2.16 Key concept: Forces and acceleration (p. 74)
15/01	3.1 The nervous system (p.100) 3.2 Reflex actions (p.102) 3.3 The endocrine system (p.104) 3.4 Negative feedback (p.106) 3.5 Key concept: Systems working together (p.108)	3.8 Key Concept: Limiting reactants and molar masses (p. 108) 3.9 Amounts of substances in equations (p. 110) 3.10 Maths skills: Change the subject of an equation (p. 112)	2.17 Forces and energy in springs (p. 76) 2.18 Practical: Investigate the relationship between force and the extension of a spring (p. 78) 2.19 Potential energy (p. 80) 2.20 Heavy or massive? (p. 82)
22/01	3.6 Human reproduction (p.110) 3.7 Contraception (p.112) 3.8 Which contraceptive? (p.114) 3.9 IVF (p.116) 3.10 IVF evaluation (p.118)	3.11 Key Concept: Endothermic and exothermic reactions (p. 114) 3.12 Reaction profiles (p. 116) 3.13 Energy change of reactions (p. 118) 3.14 Maths skills: Recognise and use expressions in decimal form (p. 120)	3.1 Static electricity (p. 90) 3.2 Electric charge and currents (p. 92)
29/01	3.11 Homeostasis (p.120) 3.12 Controlling blood glucose (p.122) 3.13 Diabetes (p.124) 3.14 Diabetes recommendations (p.126) 3.15 Maths skills: The spread of scientific data (p.128)	3.15 Oxidation and reduction in terms of electrons (p. 122) 3.16 Key concept: Electron transfer, oxidation and reduction (p. 124) 3.17 Neutralisation of acids and salt production (p. 126)	3.3 Electric circuits and potential difference (p. 94) 3.4 Series and parallel circuits (p. 96) 3.5 Resistance (p. 98) 3.6 Practical: Use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance (p. 100)
05/02	4.1 Cycling materials (p.138) 4.2 Cycling carbon (p.140) 4.3 Key concept: Learning about ecosystems (p.142) 4.4 Changing abiotic factors (p.144) 4.5 Investigating predator-prey relationships (p.146) 4.6 Competing for resources (p.148) 4.7 Maths skills: Using graphs to show relationships (p.150)	3.18 Soluble salts (p. 128) 3.19 Reaction of metals with acids (p. 130) 3.20 Practical: Preparing a pure, dry sample of a soluble salt from an insoluble oxide or carbonate (p. 132)	3.7 Investigating circuits (p. 102) 3.8 Control circuits (p. 104) 3.9 Power and energy transfers (p. 106) 3.10 Calculating power (p. 108)
Half Term Revision Catch Up			
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26/02	5.4 Genetic crosses (p.164) 5.5 Key concept: Genetics is simple or is it? (p.166) 5.6 Maths skills: Fractions, ratio, proportion and probability (p.168)	3.25 The process of electrolysis (p. 142) 3.26 Electrolysis of molten ionic compounds (p. 144) 3.27 Electrolysis of aqueous	3.15 Magnetism and magnetic forces (p. 118) 3.16 Compasses and magnetic fields (p. 120)

	5.7 Variation (p.170)	solutions (p. 146) 3.28 Practical: Investigating what happens when aqueous solutions are electrolysed using inert electrodes (p. 148)	
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12/03	5.8 The theory of evolution (p.172) 5.9 The tree of life (p.174) 5.10 Evidence of natural selection and evolution? (p.176) 5.11 Fossil evidence (p.178) 5.12 How much have organisms changed? (p.180)	4.1 Exploring Group 0 (p. 158) 4.2 Exploring Group 1 (p. 160) 4.3 Exploring Group 7 (p. 162) 4.4 Reaction trends and predicting reactions (p. 164) 4.5 Reactivity series (p. 166)	3.17 Magnetic effects (p. 122) 3.18 Calculating the force on a conductor (p. 124) 3.19 Electric motors (p. 126) 3.20 Key concept: The link between electricity and magnetism (p. 128) 3.21 Maths skills: Rearranging equations (p. 130)
19/03	5.13 Antimicrobial resistance (p.182) 5.14 Extinction or survival? (p.184) 5.15 Maths skills: Using charts and graphs to display data (p.186)	5.1 Measuring rates (p. 176) 5.2 Calculating rates (p. 178) 5.3 Concentration of solutions (p. 180) 5.4 Factors affecting rates (p. 182)	4.1 Describing waves (p. 138) 4.2 Transverse and longitudinal waves (p. 140) 4.3 Measuring wave speeds (p. 142) 4.4 Practical: Measuring the wavelength, frequency and speed of waves in a ripple tank and waves in a solid (p. 144) 4.5 Maths skills: Using and rearranging equations (p. 146) 4.6 Key concept: Transferring energy or information by waves (p. 148)
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Half Term Revision Catch Up			

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Self-Study and Catch-Up Sessions are every Monday at 1:30pm in S9/I3.

Revision Sessions are held every Monday at 3:30pm in S9.

****Please revise the outlined topic BEFORE coming to the revision session.****