

Chemistry Year 7 Running Order

1 Matter
C1.1 The particle model
C1.2 States of matter
C1.3 Melting, freezing and boiling x 2
C1.4 Density x 2
C1.5 Diffusion x 2
C1.6 Gas pressure

2 Atomic Structure
C2.1 Atoms
C2.2 Protons, neutrons and electrons
C2.3 Electron configuration
C2.4 Elements
C2.5 Compounds x 2
C2.6 Calculating RFM x 2
C2.7 Bonding
C2.8 Polymers x 2

3 Separating Substances
C3.1 Pure substances and mixtures x 2
C3.2 Solutions and solubility x 2
C3.3 Filtration and evaporation x 2
C3.4 Distillation x 2
C3.5 Chromatography x 2

4 Acids and Alkalis
C4.1 Acids and alkalis
C4.2 pH Scale x 2
C4.3 Indicators
C4.4 Neutralisation x 2
C4.5 Making salts x 2

Chemistry Year 8 Running Order

5 Periodic table
C5.1 The Periodic Table
C5.2 The elements of Group 1
C5.3 The elements of Group 7 x 2
C5.4 The elements of Group 0

6 Chemical Changes
C6.1 Chemical reactions x 2
C6.2 Word Equations
C6.3 Chemical formulae
C6.4 Properties of metals and non-metals
C6.5 Metals and acids x 2
C6.6 Metals and oxygen
C6.7 Metals and water
C6.8 Metal displacement reactions x 2

7 Energy Changes
C7.1 Combustion x 2
C7.2 Thermal decomposition x 2
C7.3 Conservation of mass x 2
C7.4 Exothermic and Endothermic Reactions x 2
C7.5 Energy level diagrams

8 Rocks
C8.1 Structure of the Earth
C8.2 Sedimentary Rocks x 2
C8.3 Igneous Rocks x 2
C8.4 Metamorphic Rocks
C8.5 The Rock Cycle

Unit Number	Chemistry Year 7
1	9
2	11
3	10
4	8
Total	38

Unit Number	Chemistry Year 8
5	5
6	11
7	9
8	7
Total	32

Physics Year 7 Running Order

1 Forces
P1.1 Introduction to forces
P1.2 Balanced and unbalanced forces x2
P1.3 Movement - Zero and non-zero forces (P)
P1.4 Gravity
P1.5 Terminal velocity (P) x 2
P1.6 Speed (P) x 2
P1.7 Acceleration x 2
P1.8 Stopping Distances
P1.9 Distance-time graphs x2

2 Circuits
P2.1 Circuit Symbols
P2.2 Potential difference (P) x 2
P2.3 Current (P) x 2
P2.4 Series Circuits (P) x 2
P2.5 Parallel Circuits (P) x 2
P2.6 Resistance (P) x 2
P2.7 Electrical Safety - Fuses and Plugs

3 Energy
P3.1 Energy resources - Non renewable and renewable
P3.2 Energy and power (P)
P3.3 Food and fuels (P)
P3.4 Food and fuels (P) x 2
P3.5 Energy stores and transfers x 2
P3.6 Conservation and efficiency

4 Electromagnets
P4.1 Magnets and magnetic fields (P) x 2
P4.2 Electromagnets (P) x 2

Physics Year 8 Running Order

5 Waves
P5.1 Modelling waves x 2
P5.2 Frequency, pitch and amplitude
P5.3 Sound waves and speed
P5.4 The ear and hearing
P5.5 Light
P5.6 Reflection (P) x 2
P5.7 Refraction (P) x 2
P5.8 The eye and vision
P5.9 Colour and filters (P) x 2
P5.10 EM spectrum

6 Forces
P6.1 Friction and drag x 2
P6.2 Air and Water Resistance
P6.3 Squashing and stretching (P) x2
P6.4 Turning forces
P6.5 Pressure in gases
P6.6 Pressure in liquids

7 Energy
P7.1 Work, energy, and machines
P7.2 Energy and temperature (P)
P7.3 Energy transfer: Conduction (P) x 2
P7.4 Energy transfer: Convection (P)
P7.5 Energy transfer: Radiation (P) x 2
P7.6 Energy transfer: Insulation (P) x 2

8 Space
P8.1 The night sky
P8.2 The solar system
P8.3 The Earth and changing season
P8.4 The moon and tides
P8.5 Space exploration

Unit Number	Physics Year 7
1	14
2	12
3	8
4	4
Total	38

Unit Number	Physics Year 8
5	14
6	8
7	9
8	5
Total	36

Biology Year 7 Running Order

1 Organisms
B1.1 Animal and plant cell
B1.2 Introduction to microscopes (onion cells)
B1.3 Specialised animal and plant cells
B1.4 Levels of organisation - cells, tissues organs and systems
B1.5 Uni-cellular organisms - Prokaryotic cells
B1.6 Skeleton and Joints
B1.7 Muscles and Movement

2 Reproduction
B2.1 Adolescence
B2.2 Reproductive system
B2.3 The menstrual cycle
B2.4 Fertilisation and implantation
B2.5 Development of a fetus
B2.6 Flowers and pollination
B2.7 Fertilisation and germination
B2.8 Seed dispersal
B2.9 Investigating seed dispersal

3 Disease
B4.1 Drugs
B4.2 Alcohol
B4.3 Reaction times x2 (CTY has a lesson)
B4.4 Smoking
B4.5 Types of Microbe and disease
B4.6 Spread of Disease x 2
B4.7 Fighting Disease
B4.8 Preventing Disease
B4.9 Treating Disease

4 Ecosystems
B3.1 Habitats (introduction of biotic and abiotic factors)
B3.2 Ecosystems (organisation hierarchy)
B3.3 Food chains and webs
B3.4 Interdependence and disruption of food chains
B3.5 Competition (animals and plants)
B3.6 Competition (predator prey relationship)

Biology Year 8 Running Order

5 Organisms
B5.1 Nutrients and healthy diet
B5.2 Food tests 1
B5.3 Food tests 2
B5.4 Unhealthy diet and disease
B5.5 Digestive system
B5.6 Bacteria and enzymes in digestion
B5.7 Enzyme practical (enzyme vs no enzyme) 1
B5.8 Enzyme practical (enzyme vs no enzyme) 2
B5.9 Lung structure and Breathing
B5.10 Gas Exchange
B5.12 Blood
B5.13 Circulatory System Vessels
B5.14 The Heart
B5.15 Heart dissection (KS3 demo only)
B5.16 Heart Disease

6 Bioenergetics
B6.1 Aerobic respiration
B6.2 Anaerobic respiration
B6.3 Fermentation practical (x2)
B6.4 Response to exercise and Practical (x2)
B6.5 Photosynthesis
B6.6 Leaves
B6.7 Investigating photosynthesis 1 (leaves and starch)
B6.8 Investigating photosynthesis 2 x2 (Pond weed practical)
B6.9 Plant minerals

7 Genes
B7.1 Variation - inherited or environmental
B7.2 Continuous and discontinuous
B7.3 Adapting to change
B7.4 Natural selection
B7.5 Charles Darwin
B7.6 Extinction
B7.7 Preserving Biodiversity
B7.8 Inheritance
B7.9 DNA
B7.10 Genetics
B7.11 Selective breeding
B7.12 Genetic modification

Unit Number	Biology Year 7
1	7
2	9
3	11
4	6
Total	33

Unit Number	Biology Year 8
5	16
6	12
7	12