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GCSE Gateway Science Suite - Chemistry A (9-1) - J248

Specification Summary

**Topic C1: Particles**
C1.1 The particle model
C1.2 Atomic structure

**Topic C2: Elements, compounds and mixtures**
C2.1 Purity and separating mixtures
C2.2 Bonding
C2.3 Properties of materials

**Topic C3: Chemical reactions**
C3.1 Introducing chemical reactions
C3.2 Energetics
C3.3 Types of chemical reactions
C3.4 Electrolysis
**Topic C4: Predicting and identifying reactions and products**

C4.1 Predicting chemical reactions  
C4.2 Identifying the products of chemical reactions

**Topic C5: Monitoring and controlling chemical reactions**

C5.1 Monitoring chemical reactions  
C5.2 Controlling reactions  
C5.3 Equilibria

**Topic C6: Global challenges**

C6.1 Improving processes and products  
C6.2 Organic chemistry  
C6.3 Interpreting and interacting with earth systems

**Topic 7**

A practical-based topic which provides learners with the necessary skills to undertake the 15% practical content in the examinations.
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**GCSE Gateway Science Suite – Physics A (9-1) - J248**

**Specification Summary**

**Topic P1: Matter**
- P1.1 The particle model
- P1.2 Changes of state
- P1.3 Pressure

**Topic P2: Forces**
- P2.1 Motion
- P2.2 Newton’s laws
- P2.3 Forces in action

**Topic P3: Electricity**
- P3.1 Static and charge
- P3.2 Simple circuits

**Topic P4: Magnetism and magnetic fields**
- P4.1 Magnets and magnetic fields
- P4.2 Uses of magnetism

**Topic P5: Waves in matter**
P5.1 Wave behaviour
P5.2 The electromagnetic spectrum
P5.3 Wave interaction

**Topic P6: Radioactivity**

P6.1 Radioactive emissions
P6.2 Uses and hazards

**Topic P7: Energy**

P7.1 Work done
P7.2 Power and efficiency

**Topic P8: Global challenges**

P8.1 Physics on the move
P8.2 Powering Earth
P8.3 Beyond Earth
Topic B1: Cell level systems
B1.1 Cell structures
B1.2 What happens in cells (and what do cells need)?
B1.3 Respiration
B1.4 Photosynthesis

Topic B2: Scaling up
B2.1 Supplying the cell
B2.2 The challenges of size

Topic B3: Organism level systems
B3.1 Coordination and control – the nervous system
B3.2 Coordination and control – the endocrine system
B3.3 Maintaining internal environments

Topic B4: Community level systems
B4.1 Ecosystems

Topic B5: Genes, inheritance and selection
B5.1 Inheritance

B5.2 Natural selection and evolution

**Topic B6: Global challenges**

B6.1 Monitoring and maintaining the environment

B6.2 Feeding the human race

B6.3 Monitoring and maintaining health

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