

Subject	Year	Term
Chemistry	10	1

Topic

Chemistry - Bonding (Unit 2), Quantitative Chemistry (Unit 3)

Content (Intent)

Prior Learning (Topic) Chemistry – The atmosphere (unit 9)

AQA GCSE Chemistry

- Unit 2 Bonding Ionic, covalent, metallic bonding, compounds and properties, polymers, fullerenes
- Unit 3 Quantitative Chemistry Mole Calculations, Ar, Mr, titrations and their calculations, percentage yield, and empirical formula

Future Learning (Topic) Chemistry - Quantitative Chemistry (Unit 3), Chemical Changes (Unit 4)

What Knowledge and Skills will be taught (Implementation)

Unit 2 Bonding

Recall the structure and properties of Ionic, Covalent, and Metallic compounds. Explain the structure and properties of polymers. Identify the difference in properties of simple covalent and Giant Molecular structures. Recall the structure of various Fullerenes and their uses. Recall the definition, size and uses of Nanoparticles.

Unit 3 Quantitative Chemistry

Calculating mass of reactants and products, Calculating Mr, Ar, Number of Moles, Number of moles in solutions, titration calculations, Concentrations, Volumes, Empirical formulas, percentage yield, limiting reagents, calculating to significant figures.

How will your understanding be assessed & recorded (Impact)

Key Piece of work (Homework)

Pupils given a percentage and formative feedback provided.

End of topic test and Year 10 Mock Exams

Pupils given a percentage and GCSE equivalent grade. Formative feedback provided.

Interleaving Topic

Unit 1 Atomic Structure – Key Terms and concepts, will be reviewed prior to the start of the Unit 2 bonding topic.

Key Piece of work (Homework)

Pupils given a percentage and formative feedback provided.

End of topic test and Year 10 Mock Exams

Pupils given a percentage and GCSE equivalent grade. Formative feedback provided.

Interleaving Topic

Unit 8 Chemical Analysis – Key Terms and concepts Required practical skills and calculations, will be reviewed prior to the start of the Unit 3 Quantitative chemistry topic

How can parents help at home?

Ensure all class booklets are complete and homework submitted on time

Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers.

Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters.

Ensure all pupils have all their resources required for science lessons, including Knowledge organisers, pens and calculators

Helpful further reading/discussion (including Reading and Vocabulary Lists)

Reading **Vocabulary Lists** Moles AQA revision guides Ionic Concentration Relative Molecular Mass Covalent AQA revision cards Relative Formula Mass EDUCAKE online learning platform. Fullerene **Empirical Formula** GCSE POD Empirical formula **Giant Covalent** Percentage yield BHHS Knowledge organisers **Limiting Reagent** Simple Molecular Titration Nanoparticle