

| Subject | Year | Term |
|-----------|------|------|
| Chemistry | 10 | 3 |
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Topic

Chemistry - Energy Changes (Unit 5), Using Resources (Unit 10)

Content (Intent)

Prior Learning (Topic)Bonding (Unit 2), Quantitative Chemistry (Unit 3)

AQA GCSE Chemistry

- Unit 5 Energy Changes Exothermic and Endothermic Reactions, Chemical and Fuel Cells
- Unit 10 Using Resources Potable water, extracting metals, Life Cycle Assessments

Future Learning (Topic) Chemistry - Rates of a chemical reaction and Equilibria (Unit 6), Organic Chemistry (Unit 7)

What Knowledge and Skills will be taught (Implementation)

Unit 5 Energy Changes

Exothermic and Endothermic reactions energy profile diagrams and definitions. Energy changes calculations. Creating and analysing Chemical Cells.

Recalling equations including half equations for Fuel Cells.

Required practical 'Investigate the Energy Changes in a Reaction'

Unit 10 Using Resources

Processes by which Potable water is produced and definitions. Methods of extracting metals such as copper. Life Cycle assessments for everyday items and materials. Corrosion, Alloys, Ceramics, Polymers, Composites. The Haber process and NPK Fertilisers.

Required practical 'Analysis and Purification of Water'

How will your understanding be assessed & recorded (Impact)

Key Piece of work (Homework)

Pupils given a percentage and formative feedback.

End of topic test

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

Yr 10 Mock Exams

Pupils given a percentage and GCSE equivalent grade.

Interleaving topic

Unit 2- Bonding, Key Terms, concept, will be reviewed prior to the start of the Unit 5 Energy Changes

Key Piece of work (Homework)

Pupils given a percentage and formative feedback.

End of topic test

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

Walking talking Mocks (WTM)

Formative feedback provided.

Yr 10 Mock Exams

Pupils given a percentage and GCSE equivalent grade.

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

AQA revision guides AQA revision cards

EDUCAKE online learning platform.

GCSE POD

BHHS Knowledge organisers

Vocabulary Lists

Rechargeable Cells Potable water

Non-Rechargeable Cells Life cycle assessments

Exothermic Reaction Corrosion
Endothermic Reaction Ceramics
Activation Energy Composites
Chemical Cells Haber Process
Fuel Cells Galvanising
Hydrogen Fuel Cell Sacrificial Anode