

HIGHFIELDS SCHOOL

CURRICULUM OVERVIEW 2023-2024



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SUBJECT: GCSE CHEMISTRY

EXAMINATION BOARD: OCR

| AUTUMN TERM - YEAR 9 | SPRING TERM - YEAR 9 | SUMMER TERM - YEAR 9 |
|--|---|---|
| <p>C1: Particles Atoms, molecules and compounds</p> <ul style="list-style-type: none">C1.1 - Particle modelC1.2 - Atomic structure <p>C4: Predicting and identifying reactions and products</p> <ul style="list-style-type: none">C4.1 - Predicting chemical reactions <p>Potential Practical Activities</p> <ul style="list-style-type: none">Metals and water reactionsMetals and acid reactionsMetal displacement reactionsGroup 7 halogens and displacement | <p>C4: Predicting and identifying reactions and products</p> <ul style="list-style-type: none">C4.2 - Identifying products of chemical reactions <p>C3: Chemical reactions</p> <ul style="list-style-type: none">C3.1 - Introducing chemical reactions <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none">Mini-tests and quizzes for C1 and C4Past examination questionsStructured and multiple-choice questions <p>Potential Practical Activities</p> <ul style="list-style-type: none">Heating baking powder practicalTesting for gases: hydrogen, oxygen, carbon dioxide and chlorineFlame testsSodium hydroxide precipitate testsSulfate, carbonate and halide ion testsMetal and acid reactions | <p>C3: Chemical reactions</p> <ul style="list-style-type: none">C3.2 - EnergeticsC3.3 - Types of reactions <p>C2: Elements, compounds and mixtures</p> <ul style="list-style-type: none">C2.1 - Purity and separating mixtures <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none">Mini-tests and quizzes for C3.1 - C3.3Past examination questionsStructured and multiple-choice questionsSummary sheetsForms, Seneca quizzes <p>Potential Practical Activities</p> <ul style="list-style-type: none">Measuring temperature changesProducing pure dry samples of saltMetal displacement reactionsDetermining pH of solutionsNeutralisation reactions |
| <p>ASSESSMENT</p> <ul style="list-style-type: none">C1.1 Atoms, molecules and compounds test.C1.2 Atoms test.C4.1 Predicting chemical reactions test. | <p>ASSESSMENT</p> <ul style="list-style-type: none">C4.2 Identifying products test.C3.1 Chemical reactions test. <p>Mid-Year exam covering C1 and C4 (HT)</p> | <p>ASSESSMENT</p> <ul style="list-style-type: none">C3.2 Energetics test.C3.3 Types of reaction test. <p>End of Year exam covering C3.1 - C3.3 (HT)</p> |

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| AUTUMN TERM - YEAR 10 | SPRING TERM - YEAR 10 | SUMMER TERM - YEAR 10 |
|--|---|---|
| <p>C2: Elements, compounds and mixtures</p> <ul style="list-style-type: none"> C2.1 - Purity and separating mixtures C2.2 - Bonding <p>C3: Chemical reactions</p> <ul style="list-style-type: none"> C3.4 – Electrolysis <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Separation practicals: filtration, simple distillation, evaporation and chromatography Electrolysis practicals | <p>C2: Elements, compounds and mixtures</p> <ul style="list-style-type: none"> C2.3 - Properties of materials <p>CHEMISTRY (HT)</p> <p>C5: Monitoring and controlling chemical reactions</p> <ul style="list-style-type: none"> C5.2 - Controlling reactions C5.3 - Equilibria <p>COMBINED SCIENCE (CH)</p> <p>C5: Monitoring and controlling chemical reactions</p> <ul style="list-style-type: none"> C5.1 - Controlling reactions C5.2 – Equilibria <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Collecting a gas practical Forming a precipitate practical Rates of reaction: effects of temperature, concentration, surface area and catalysts | <p>C6: Global Challenges</p> <ul style="list-style-type: none"> C6.1 - Improving processes and products <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none"> Mini-tests and quizzes for C1-C3 Past examination questions Structured and multiple-choice questions Summary sheets Forms, Seneca quizzes |
| <p>ASSESSMENT</p> <ul style="list-style-type: none"> C2.1 Purity and separating mixtures test. C2.2 Bonding test. C3.4 Electrolysis test. | <p>ASSESSMENT</p> <ul style="list-style-type: none"> C2.3 Properties of materials test. C5 Controlling reactions test. <p>Practice exam: C1-C3 (HT/CH)</p> | <p>ASSESSMENT</p> <ul style="list-style-type: none"> C5 Equilibria test. <p>End of Year exam: C1-C3 (HT/CH)</p> |

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| AUTUMN TERM - YEAR 11 | SPRING TERM - YEAR 11 | SUMMER TERM - YEAR 11 |
|---|---|---|
| <p>CHEMISTRY (HT) C6: Global Challenges</p> <ul style="list-style-type: none"> C6.1- Improving processes and products <p>C5: Monitoring and controlling chemical reactions</p> <ul style="list-style-type: none"> C5.1 - Monitoring chemical reactions <p>COMBINED SCIENCE (CH) C6: Global Challenges C6.1 - Improving processes and products C6.2 - Interpreting, interacting with Earth systems</p> <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none"> Mini-tests and quizzes for C1–C3 Past examination questions Structured and multiple-choice questions <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Acid-alkali Titrations Making fertilisers Corrosion and reducing corrosion Cracking oil fractions | <p>CHEMISTRY (HT) C6: Global Challenges C6.2 - Organic chemistry C6.3 - Interpreting, interacting with Earth systems</p> <p>COMBINED SCIENCE (CH) C6: Global Challenges C6.2 - Interpreting, interacting with Earth systems</p> <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none"> Mini-tests and quizzes for C1–C6 Past examination questions Structured and multiple-choice questions PAG questions Summary sheets Forms, Seneca quizzes <p>Potential Practical Activities</p> <ul style="list-style-type: none"> Water of crystallisation Bromine water test Hydrogen-oxygen fuel cell (electrolysis) | <p>Revision and Exam preparation (4Rs)</p> <ul style="list-style-type: none"> Mini-tests and quizzes for C1–C6 Structured and multiple-choice questions Past exam paper questions, 6 mark and PAG question booklets Summary sheets Forms, Seneca quizzes |
| <p>ASSESSMENT</p> <ul style="list-style-type: none"> C5 Monitoring chemical reactions test (HT). C6.1 Improving processes and products test. <p>Pre-mock School exam: C1-C3 (HT/CH) Pre-mock multiple choice exam: C1-C3 (HT/CH) School exam: C1-C3 (HT/CH)</p> | <p>ASSESSMENT</p> <ul style="list-style-type: none"> C6 Organic chemistry test (HT). C6 Interpreting, interacting with Earth systems. <p>Practice exams: C4-C6 (HT/CH) Practice multiple choice exams: C4-C6 (HT/CH) Practice exams: C1-C3 (HT/CH)</p> | <p>ASSESSMENT Final GCSE Examinations</p> <p>CHEMISTRY HT (J248)</p> <ul style="list-style-type: none"> Paper 03: C1-C3 and Paper 04: C4-C6 (HT) <p>COMBINED SCIENCE (CH) (J250)</p> <ul style="list-style-type: none"> Paper 09: C1-C3 and Paper 10: C4-C6 (CH) |