



| Subject                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Year                                                                                                                                                                                                                                                 | Term |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Chemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9                                                                                                                                                                                                                                                    | 2    |
| Topic                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                      |      |
| Chemistry – Chemical Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                      |      |
| Content (Intent)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                      |      |
| <b>Prior Learning (Topic)</b> Chemistry – Reactivity of Metals, Acids and their Reactions (unit 4)                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                      |      |
| Students will have improved their investigative SKILLS by identifying simple techniques for separating mixtures: filtration, evaporation, distillation and chromatography, The identification of pure substances.                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                      |      |
| Students will have learnt new KNOWLEDGE about describing the structure of different states of matter using keywords. They will now be able to Identify elements, compounds and mixtures and know how to separate them.                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                      |      |
| Students should be able to demonstrate their UNDERSTANDING of elements, compounds and mixtures and their properties.                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                      |      |
| <b>Future Learning (Topic)</b> Chemistry - The Rate and Extent of Chemical Change                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                      |      |
| What Knowledge and Skills will be taught (Implementation)                                                                                                                                                                                                                                                                                                                                                                                                                    | How will your understanding be assessed & recorded (Impact)                                                                                                                                                                                          |      |
| <b>Knowledge</b> – To use and recall a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate.<br>To justify the use of Instrumental methods by recalling they provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. | <b>Key Piece of work (Homework)</b><br>Pupils given a percentage and formative feedback provided for a targeted piece of homework so that they can respond to the teacher and make progress in the topic.                                            |      |
| <b>Mathematical Skills</b><br>use of ratio's, fractions, decimals and significant figures in calculations for chromatography.<br><b>Practical Skills</b><br>All Pupils to execute and recall the required practical 'Chromatography'<br>Triple Science only – Required Practical 'Use of chemical tests to identify the ions in unknown single ionic compounds covering Flame tests through to Sulphates ions.                                                               | <b>End of topic test</b><br>Pupils given a percentage, formative feedback and GCSE equivalent grade. Formative feedback provided.<br><br><b>Year 9 end of year exams</b><br>Pupils given a percentage, formative feedback and GCSE equivalent grade. |      |
| How can parents help at home?                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                      |      |
| Ensure all class booklets are complete and homework submitted on time<br>Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers.<br>Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters.<br>Ensure all pupils have all their resources required for science lessons, including booklets, pens and calculators                 |                                                                                                                                                                                                                                                      |      |
| Helpful further reading/discussion (including Reading and Vocabulary Lists)                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                      |      |
| <b>Reading</b><br>AQA revision guides<br>AQA revision cards<br>EDUCAKE online learning platform.<br>GCSE POD                                                                                                                                                                                                                                                                                                                                                                 | <b>Vocabulary Lists</b><br>Formulation<br>Distillation<br>Condensing<br>Rf value<br><br>Flame Test<br>Mobile Phase<br>Stationary Phase                                                                                                               |      |