Curriculum Overview – Year 10 Chemistry

Unit Title	Learning	How can parents best support?
C1 – Atomic Structure and the Periodic Table	Students will learn; • the structure and history of the atom, and that atoms make up elements, compounds and mixtures. • How to separate different components within a mixture using scientific techniques • How to calculate the relative atomic mass and identify isotopes. • How to correctly draw the electronic configuration of elements and write this in a numeric format • The arrangement and development of the periodic table • The properties and reactivity of group 0, 1 and 7	Encourage the use of Tassomai homework completion Engage in scientific discussions Encourage the use of the Bitesize link below https://www.bbc.co.uk/bitesize/guides/z3sg2nb/revision/3 Use the knowledge organiser to learn the meanings of essential keywords
C2 – Bonding, Structure, and Properties	Students will learn about; • States and state symbols • Ions, ionic bonds and ionic compounds • Covalent bonds, simple covalent molecules, giant covalent structures and polymers • Allotropes of carbon, including graphite, diamond, graphene and fullerene	Encourage the use of Tassomai homework completion Engage in scientific discussions Encourage the use of the Bitesize link below: https://www.bbc.co.uk/bitesize/topics/z33rrwx Use the knowledge organiser to learn the meanings of essential keywords

	• Metallic bonding and metal properties • Nanotechnology (triple science only)	
C3- Quantitative Chemistry	Students will learn: • How to calculate formula mass • How to calculate moles and masses • How to work out which is the limiting reactant • How to calculate concentration	Engage in scientific discussions Encourage the use of Tassomai homework completion Encourage the use of the Bitesize link below: https://www.bbc.co.uk/bitesize/topics/zsnyy4j Use the knowledge organiser to learn the meanings of essential keywords
C4- Chemical Changes	Students will learn: • The reactivity series of metals • Metal extraction • Oxidation and reduction • Electrolysis of molten substances • Electrolysis of solutions	Encourage the use of Tassomai homework completion Engage in scientific discussions Encourage completion of homework Encourage the use of the Bitesize link below: https://www.bbc.co.uk/bitesize/topics/zt6ppbk Use the knowledge organiser to learn the meanings of essential keywords
C5- Energy Changes	Students will learn: • Exothermic reactions • Endothermic reactions • Calculating energy changes using bond energies	Encourage the use of Tassomai homework completion Engage in scientific discussions Encourage completion of homework Encourage the use of the Bitesize link below: https://www.bbc.co.uk/bitesize/topics/z27xxfr Use the knowledge organiser to learn the meanings of essential keywords