Kings Priory School

Chemistry Homework Mapping

Key

	Consolidation task (mandatory)		Extended task (opt in)

Year	Autumn	Spring	Summer
9	**Atomic Structure and The Periodic Table -** Use the information booklet and your own research to create a detailed timeline of the history/development of the periodic table **Retrieval:** Complete the **Acids and Alkali** retrieval revision mat on google classroom. Complete Seneca tasks 1.1.10 - 1.1.14 (the periodic table) Watch GCSE pod 4.1.2 (the periodic table) Watch the Christmas lecture discussing the periodic table. Investigating the Periodic Table with Experiments - with Peter Wothers	**Structure and Bonding -** Complete and self assess the **Atomic structure** and **structure and bonding** exam questions in the year 9 chemistry homework booklet **Retrieval:** Complete the **metals and reactivity** revision mat on google classroom Complete Seneca tasks 2.1 - 2.3 (Structure and bonding) Watch GCSE pod 4.2.1 - 4.2.4 (Structure and bonding) Read this article discussing the everyday uses of nanomaterials https://edu.rsc.org/feature/the-many-uses-of-nanomaterials/4018218.article	**Chemical changes -** Complete and self assess the **Chemical changes** exam questions in the year 9 chemistry homework booklet **Retrieval:** Complete exam questions on the topics you have learnt this year. Booklets of questions can be found on google classroom. Complete Seneca tasks 4.1 - 4.4 (Chemical changes) Watch GCSE pod 4.4.1 - 4.4.3 (Chemical changes) Read this article discussing hydrochloric acid. https://edu.rsc.org/magnificent-molecules/hydrochloric-acid/3010539.article
10	Quantitative chemistry - Complete Year 10 Chemistry Homework Booklet questions on Quantitative chemistry. Read the article which highlights how analytical and quantitative chemistry is used in the real world. https://www.studyread.com/importance-of-analytical-chemistry-in-our-daily-life/	Energy - Complete Year 10 Chemistry Homework Booklet questions on energy changes Read the article: The Chemistry behind Fireworks https://penntoday.upenn.edu/news/chemistry-behind-fireworks	Rates of Reaction - Complete Year 10 Chemistry Homework Booklet questions on rates of reaction Watch the Youtube video on real life application of rates of reaction: Application of Factors that Affect the Rate of Reacti…

	Combined Higher/Foundation - Complete Seneca tasks on Quantitative chemistry (3.1 Chemical Measurements) Triple - Complete Seneca tasks on Quantitative chemistry (3.1 Chemical Measurements) Combined Higher/Foundation - Watch GCSEPod on Quantitative chemistry (5.3.1 Chemical Measurements and 5.3.2 Use and amount of substances in relation to mass of pure substances) Triple - Watch GCSEPod on Quantitative chemistry 4.3.1 Chemical Measurements, 4.3.2 Use and amount of substances in relation to mass of pure substances, 4.3.3 Yield and atom economy, 4.3.4 Using concentration of solutions and 4.3.5 Use of amount of substances in relation to volume of gases) Retrieval: Complete the Quantitative Chemistry revision mat on google classroom	Combined Higher/Foundation - Complete Seneca tasks on Energy Changes (5.1 Exothermic and Endothermic Reactions) Triple - Complete Seneca tasks on Energy Changes (5.1 Exothermic and Endothermic Reactions and 5.2 Fuel Cells) Combined Higher/Foundation - Watch GCSEPod on Energy Changes (5.5.1 Exo/Endothermic reactions) Triple - Watch GCSEPod on Energy Changes (4.5.1 Exo/Endothermic reactions and 4.5.2 Fuel cells) Retrieval: Complete the Periodic table revision mat on google classroom	Combined Higher/Foundation - Complete Seneca tasks on Rate and Extent of Chemical Change (6.1 Rate of Reaction and 6.2 Reversible Reactions) Triple - Complete Seneca tasks on Rate and Extent of Chemical Change (6.1 Rate of Reaction and 6.2 Reversible Reactions) Combined Higher/Foundation - Watch GCSEPod on Rate and Extent of Chemical Change (5.6.1 Rate of Reaction and 5.6.2 Reversible Reaction and Dynamic Equilibrium) Triple - Watch GCSEPod on Rate and Extent of Chemical Change (4.6.1 Rate of Reaction and 4.6.2 Reversible Reaction and Dynamic Equilibrium) Retrieval: Complete the Rates of Reactions revision mat on google classroom
11	In triple chemistry students will complete two self-study units looking at the evolution of the atmosphere, pollutants and climate change. Read the article Butter and margarine: what's the difference? | Article | RSC Education Complete Seneca tasks 7.1 which considers organic chemistry and 8.1, 8.2 and 8.3 (triple only) looking at the chemical analysis unit. Watch GCSE pod 4.7.1 (organic) and 4.8.1 (triple and combined) and 4.8.3 (triple only) on chemical analysis. Use the resources on google classroom to retrieve the topic 'Structure and Bonding' in preparation for their mock.	Watch Climate Change - The Facts with Sir David Attenborough on BBC iPlayer. Combined/Triple - Complete Seneca tasks on Chemistry of The Atmosphere (9.1 The Earth's Atmosphere) Combined Higher/Foundation - Watch all three GCSEPods within Chemistry of The Atmosphere (5.9.1-5.9.3) Triple - Watch all three GCSEPods within Chemistry of The Atmosphere (4.5.1-4.5.3) Use the resources on google classroom to retrieve the topic 'Energy' in preparation for their final GCSE exams.	Watch the following video and produce a summary of what you have watched: How Do Wastewater Treatment Plants Work? Combined Higher/Foundation - Complete Seneca tasks on Using Resources (10.1 and 10.2) Triple - Complete Seneca tasks on Using Resources (10.1 - 10.4) Combined Higher/Foundation - Watch the two GCSEPods within Using Resources (5.10.1-5.10.2) Triple - Watch all four GCSEPods within Using Resources (4.10.1-4.10.4) Use the resources on google classroom to retrieve the topic 'Rate of Reaction' in preparation for their final GCSE exams.

12	There is an expectation throughout the A level chemistry course that pupils will ensure that they take lesson activities and use the provided textbooks and use online resources (machemguy, chemguide, allery chemistry) to ensure that they produce high quality notes. They should bring any questions to weekly drop in sessions or to lessons. Pupils should use the opportunity to read around chemistry by focussing on books within the reading list, and websites listed below Daily A Level Chemistry Facts – Daily Chemistry Facts (Based on the A-Level AQA spec but most facts work with all) @chemAlevels Chemistry News –The latest chemistry news from only the best sources @chemistrynews Compound Interest– Graphics exploring everyday #chemistry. Winner of @absw 2018 science blog award @compoundchem Chemistry World – Chemistry magazine bringing you the latest chemistry news and research every day. Published by the Royal Society of Chemistry. @ChemistryWorld Royal Society of Chemistry - Promote, support and celebrate chemistry. Follow for updates on latest activities @RoySocChem Periodic Videos– Chemistry video series by @BradyHaran & profs at the Uni of Nottingham - also see @sixtysymbols & @numberphile @periodicvideos		
13	Past question booklets on the following topics **Teacher 1 -** Atomic Structure Electrons and Bonding **Teacher 2 -** Amount of Substance Acids Redox	Past question booklets on the following topics **Teacher 1 -** Rate of Reaction Chemical Energetics **Teacher 2 -** Periodic trends and Group 2 Group 7 and Ion Tests Alkanes	Past question booklets on the following topics **Teacher 1 -** Alcohols Organic Synthesis **Teacher 2 -** Alkenes Haloalkanes
	Past question booklets on the following topics **Teacher 1 -** Equilibria, Acid Bases and Buffers Electrochemistry **Teacher 2 -** Transition Metal Chemistry Further Redox Chemistry Kinetics Enthalpy and Entropy	Past question booklets on the following topics **T**eacher 1 - Spectroscopic techniques Carbonyl Groups Carboxylic Acids **Teacher 2 -** Aromatic Chemistry Aminines Condensation Polymers From Spring half terms there will be learning of reaction conditions and mechanisms for weekly tests which build up the Y12 and Y13 organic chemistry knowledge	In the final term, learning in preparation for the weekly tests on organic chemistry will continue. Homework will be focussed around revision and bespoke areas of need. Past questions and papers are available from. https://www.ocr.org.uk/qualifications/as-and-a-level/chemistry-a-h032-h432-from-2015/assessment/