YEAR 7 CURRICULUM MAP
Chemistry

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Introduction to Science Matter 3.5.1 Describe the arrangement and movement of particles in solids, liquids and gases Explain in terms of energy how to change the state of an object 3.5.1 Explain changes in states in terms of changes to the energy of particles. 3.5.1 Explain changes in states in terms of changes to the energy of particles. 3.5.1 Explain changes in states in terms of changes to the energy of particles. 3.5.1 Explain changes in states in terms of changes to the energy of particles. Find arithmetic means Construct and interpret frequency tables and bar charts	*Term 1* *Baseline Assessment HT1* *Block Test (All units) HT2*	*Overarching unit intent (KSU):* *Reactions* *2.6 Describe the evidence for your idea.* *3.6.2 Acids and alkalis can be corrosive or irritant and require safe handling.* *3.6.2 Identify the best indicator to distinguish between solutions of different pH, using data provided* *Compare concentrated and dilute acids and strong and weak acids* *3.6.2 Describe a method for how to make a neutral solution from an acid and alkali.* Find arithmetic means Construct and interpret frequency tables and bar charts Substitute numerical values into algebraic equations	*HT3 & HT4 (with elements of HT1 & HT2)* *Block test HT3*	*Overarching unit intent (KSU):* *Earth and structure* *3.7.1 Describe the properties of the crust, the mantle and the core.* *3.7.1 Explain why a rock has a particular property based on how it was formed.* *3.7.1 Explain why a rock has a particular property based on how it was formed.* *3.7.1 Construct a labelled diagram to identify the processes of the rock cycle.* *3.7.1 Explain why a rock has a particular property based on how it was formed.* *3.7.2 Describe how space exploration and observations of stars are affected by the scale of the universe.* *3.7.2 Describe how space exploration and observations of stars are affected by the scale of the universe.* Find arithmetic means Construct and interpret frequency tables and bar charts Substitute numerical values into algebraic equations Understand simple probability	*HT1 – HT6 KSU* *End of year summative assessment all content*
		Term 1 core KSU re-visit *Which KSU will be revisited?* *Following HT2 assessment*		*Term 2 core KSU Re-visit* *Following HT3 assessment* *Exam preparation week*	

YEAR 8 CURRICULUM
MAP:Chemistry

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Year 7 review unit Matter - 3.5.4 The symbols of hydrogen, oxygen, nitrogen, carbon, iron, zinc, copper, sulfur, aluminium, iodine, bromine, chlorine, sodium, potassium, and magnesium. - 3.5.4 Represent atoms, molecules, elements, mixtures, and compounds using particle diagrams. - 3.5.4 Represent atoms, molecules, elements, mixtures, and compounds using particle diagrams. - 3.5.4 Represent atoms, molecules elements, compounds, and mixtures using particle diagrams. Solve simple algebraic equations Find arithmetic means	*Term 1* *HT1 Block test Includes All Y7 material*	*Overarching unit intent (KSU):* *Reactions* *- 3.6.4 Write word equations from information about chemical reactions.* *- 3.6.4 Use particle diagrams to show what happens in a reaction.* *- 3.6.4 Write word equations from information about chemical reactions.* *- 3.6.4 Predict the products of the combustion or thermal decomposition of a given reactant and show the reaction as a word equation.* Construct and interpret frequency tables and bar charts Solve simple algebraic equations Find arithmetic means Understand simple probability *Term 1 core KSU re-visit* *Which KSU will be revisited?* *Following HT1 & HT3 assessment*	*HT3 & HT4 (with elements of HT1 & HT2)* *HT3 Block test Includes all Y7&8 material so far covered*	*Overarching unit intent (KSU):* *Y7&8 review* *Earth* *- 3.7.3 Methane and carbon dioxide are greenhouse gases.* *- Earth's atmosphere contains around 78% nitrogen, 21% oxygen, <1% carbon dioxide, plus small amounts of other gases.* *- 3.7.3 Describe how human activities affect the carbon cycle.* *- 3.7.3 Use a diagram to explain how carbon is recycled in the environment and through living things.* *- 3.7.3 Describe how human activities affect the carbon cycle.* *- 3.7.3 Describe how human activities affect the carbon cycle.* *- 3.7.3 Describe how global warming can impact on climate and local weather patterns.* Solve simple algebraic equations Find arithmetic means Use a scatter diagram to identify a correlation between two variables *Term 2 core KSU Re-visit* *Prior to HT6 Exams*	*HT1 – HT6 KSU* *End of year summative assessment* *Covers all y7 & 8 work*

YEAR 9 CURRICULUM
MAP:Chemistry

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Atomic Structure students will develop their understanding of atoms as fundamental chemical building blocks. They will see how to interpret chemical formulae and extend their KS3 knowledge of the law of the conservation of mass, leading them to balance chemical equations. It is important that they understand that when balancing an equation, the formula of the substance must not change. Make order of magnitude calculations Change the subject of an equation Solve simple algebraic equations	*Term 1* *HT1 Summative Assessment*	*Overarching unit intent (KSU):* *Periodic Table* *students will learn about the development of the periodic table, including the work of Dalton, Newlands, and Mendeleev. Within this, students should have built upon their understanding of the development of scientific models from C1 Atomic structure. Students should understand how each stage in the development of the periodic table was facilitated by new evidence becoming available. They should also be able to identify the importance of an inherent pattern to the elements and how this guided Mendeleev's thinking.* Use ratios, fractions and percentages Find arithmetic means Translate information between graphical and numeric form Use a scatter diagram to identify a correlation between two variables *Term 1 core KSU re-visit* *Which KSU will be revisited?* *Prior to HT3 summative assessment*	*HT3 & HT4 (with elements of HT1 & HT2)* *HT3 summative assessment*	*Overarching unit intent (KSU):* *Structure and bonding* *the different types of bonding in substances. They should know that covalent bonding is the sharing of one or more pairs of electrons between non-metal atoms; ionic bonding involves a metal and non-metal atom, with the metal atom losing one or more electrons and the non-metal atom gaining one or more electron; and metallic bonding involves a delocalised sea of electrons surrounding the positive metal ions.* Use ratios, fractions and percentages Find arithmetic means Translate information between graphical and numeric form Use a scatter diagram to identify a correlation between two variables *Term 2 core KSU* *Prior to End of Year assessment*	*HT1 – HT6 KSU* *HT6 End of year assessment All topics included*

YEAR 10CURRICULUM MAP:
Chemistry

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Term 3:	EOY Assessment Point
Overarching unit intent (KSU): Year 9 Review topic Chemical Calculations students will build upon their understanding of the structure of atoms and sub-atomic particles to understand relative atomic mass and relative formula mass. Chemical Changes students will revise and develop their understanding of the reactivity series from KS3. They will study the reactions of the metals potassium, sodium, lithium, calcium, magnesium, zinc, iron, and copper with water and acids . Electrolysis , students are introduced to electrolysis.. Students should also be able to describe the different experimental tests for gases, including both the procedure and positive result. explain why ionic compounds can undergo electrolysis when molten or in solution. Recognise and use expressions in decimal form Recognise and use expressions in standard form Use an appropriate number of significant figures Use a scatter diagram to identify a correlation between two variables	*Term 1* *HT1 summative assessment including all Y9 topics*	*Overarching unit intent (KSU):* *Energy changes* *students will learn about the energy transfers that occur during chemical reactions. They should understand that an exothermic reaction transfers energy from the system to the surroundings, and an endothermic reaction transfers energy from the surroundings to the system. This is a key concept that students should be confident with. Students should be able to interpret experimental data to identify if a reaction is exothermic or endothermic and should* *be able to describe some uses of exothermic and endothermic reactions* Substitute numerical values into algebraic equations using appropriate units for physical quantities Translate information between graphical and numeric form Understand and use the symbols: =, <>, >, ∝ , ~ *Term 1 core KSU re-visit* *Which KSU will be revisited?* *End of HT2*	*HT3 & HT4 (with elements of HT1 & HT2)* *HT3 summative assessment* *All y9 + Y10*	*Overarching unit intent (KSU):* *Crude oil and fuels* *students have learnt about hydrocarbons and been introduced to the alkanes. They should now be able to identify alkanes from their formulae, and be able to name and draw the displayed formula of the first four alkanes. Students have also learnt about some of the reactions of hydrocarbons, including combustion (both complete and incomplete) and cracking* *GCSE review unit* Change the subject of an equation Substitute numerical values into algebraic equations using appropriate units for physical quantities Solve simple algebraic equations Understand that y = mx + c represents a linear relationship Translate information between graphical and numeric form *Term 2 core KSU Re-visit* *End of HT4*	*HT1 – HT6 KSU* *HT6 summative assessment* *All Y9&10 topics*

YEAR 11 CURRICULUM MAP:
Chemistry

Term 1:	*Assessment Point: Summative or AFL?*	Term 2:	*Assessment Point: Summative or AFL?*	Half Term 5:	EOY Assessment Point
Overarching unit intent (KSU): GCSE review unit Rates and equilibrium students have learnt about the factors that affect the rate of a reaction, including temperature, surface area, concentration, and pressure. Students should be able to explain the effect of each factor on the rate of reaction using collision theory *Chemical Analysis* *All students should now understand the difference between a pure substance, a mixture, and a formulation, and what is meant by purity.* Change the subject of an equation Substitute numerical values into algebraic equations using appropriate units for physical quantities Solve simple algebraic equations Understand that y = mx + c represents a linear relationship Translate information between graphical and numeric form Understand simple probability	*Term 1* *HT1 Summative assessment all y9&10 units* *HT2 Mock exam*	*Overarching unit intent (KSU):* *Earth's resources* *students learn about the difference between finite and renewable resources. It is important that students understand that renewable resources are not an infinite supply, but are replaceable at a rate similar to the rate they are used up, whereas finite resources are used up faster than they can be replenished. Students understanding of finite and renewable resources should be applied to the need to reuse and recycle, and they should be able to describe and evaluate ways of reducing the use of finite resources, and carry out life cycle assessments on products* Understand the principles of sampling as applied to scientific data Change the subject of an equation Substitute numerical values into algebraic equations using appropriate units for physical quantities Solve simple algebraic equations Understand the terms mean, mode and median	*HT3 & HT4 (with elements of HT1 & HT2)* *Mock exam HT3* *All topics Y9-11*	*Overarching unit intent (KSU):* *Structured revisiting of GCSE content*	*HT1 – HT6 KSU* *GCSE exama*
		Term 1 core KSU re-visit *Which KSU will be revisited?* *Following Mock Exam HT2*		*Term 2 core KSU Re-visit* *Following HT3 Mock exam*	