**Year 9 (Phase 3/ Key Stage 3)**

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| **Week** | **Model of Learning** | **Topic** | **Curriculum Standard** | **Learning outcomes** | **Prior Learning** | **Cross curricular links** | **Resources** | **Home learning/ Homework** | **Assessment Platform/ Apps for****AFL** | **Key vocabulary** | **Ongoing reflection/****Modification** |
| **JANUARY** |
| **Week 16****(03/01/2021-07/01/2021)** | Blended Learning and Distance Learning | **9Fe Extracting metals** | KS3 | * To explain why the metals used to extract is related to cost and metal reactivity
* Describe how metals are extracted from their ores
* Investigate the function of the plant water transport system.
 | Properties of metals | Maths, English and Art | https://developingexperts.com/s/unit-library/curriculum/1 | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Native state, reduce, reducing agent, redox reaction |  |
| **Week 17****(10/01/2021-14/01/2021)** | Blended Learning and Distance Learning | Revision WS for MYA | KS3 | Differentiate between dependent, independent and control variables. | Dependent variableindependentvariable | Maths, English and Art |  | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | dependent independent controlconstant variables |  |
| **Week 18****(17/01/2021-21/01/2021)** | **Mid Year Assessment** |
| **Week 19****(24/01/2021-28/01/2021)** | **Mid Year Assessment** |
| **JANUARY/ FEBRUARY** |
|  **Week 20****(31/01/2021-04/02/2021)** | Blended Learning and Distance Learning | * 9Gb Chemical reactions
 | KS3 | * To interpret and sketch energy profiles
* Explain why reactions are described as exothermic and endothermic
* Explain how bonding affects the chemical properties.
* Describe the energy changes accompanying a chemical reaction
 | Transformation of energy into various forms | Maths, English and Art | <https://www.bbc.co.uk/bitesize/articles/zr6mkty> https://www.slideshare.net/cartlidge/energy-change-during-chemical-rcts | Assignment In the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Electrons, neutrons , protons , metallic bonding , ions, conductivity |  |
| **Week 21****(07/02/2021-11/02/2021)** | Blended Learning and Distance Learning | 9Ga Art and chemistry9Ga ions | KS3 | * Explain how ions are formed
* Describe ionic conducting and metallic conducting
* Describe the different ways in which energy is transferred and stored.
* Elaborate the law of conservation of energy.
 | Knows the symbol of elements and how to get information about an element from the periodic table | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing><https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Reaction profile, exothermic, endothermic, reactants, products, energy change, activation energy, malleable |  |
| **Week 22****(14/02/2021-18/02/2021)** | Blended Learning and Distance Learning | * 9Gc Physical and chemical changes

WS* Fair comparisons of reaction rates and plotting of graphs
 | KS3 | * Describe how rates of reaction change.
* Describe the factors on which rates of reaction is dependant
* Explain the importance of surface area: volume ratios
* Make a fair comparison of result.
* Calculate ratios.
 | Differentiate between physical and chemical change | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing><https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Rate of reactions,surface area, tabular data,surface area: volume ratio. |  |
| **Half Term Break for Students (21/02/2021-23/02/2021)** |
| **Week 23****(24/02/2021-25/02/2021)** | Blended Learning and Distance Learning | **Chapter:9Gd Periodic table** | KS3 | * To write balanced equations with state symbols.
* To represent the quantities in standard forms(WS).
* Present information as bar charts and scatter charts.
* To convert numbers to and from standard forms.
* To describe use of standard units
 | Law of conservation of mass | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Salt, neutralisationChemical equationBalanced equationsLaw of conservation of massLine of best fit |  |
| **FEBRUARY/ MARCH** |
| **Week 24****(28/02/2021-04/03/2021)** | Blended Learning and Distance Learning |  9Ge-**Earth and atmosphere**9Ge-Equilibria | KS3 | * To represent reversible reactions using balanced chemical; equations.
* Explain how a dynamic equilibrium is formed in a reversible reaction
* Explore causes of environmental variation.
* Discuss and describe adaptations to daily and seasonal changes.
 | Law of conservation of mass | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Physical environmental factorsEquilibriumReversible reactionsDynamic equilibriumChemical equilibrium |  |
| **Week 25****(07/03/2021-11/03/2021)** | Blended Learning and Distance Learning | **Working scientifically**9H1 Carbon capture | KS3 | * Describe the technics to control carbon
* To plan and carry out an investigation on salts.
* To identify the measures to be followed or precations in lab
 | Food chainsFood webs | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing><https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Carbon capture and storageElectrolysisIndependent and dependent variableselctrodes |  |
| **Week 26****(14/03/2021-18/03/2021)** | Blended Learning and Distance Learning | * Rock cycle
 | KS3 | * Recall and recognise the three types of rocks mainly- igneous , metamorphic , sedimentary,
* Find out how the three rocks re related through rock cycle..
* Comparison of the types of rocks based on their use, reactivity and strength.
 | Sources of rocks | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing><https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  |  Igneous rocksMetamorphic rocks Sedimentary rocksRock cycleCompressionmetamorphism |  |
| **Week 27****(21/03/2021-25/03/2021)** | Blended Learning and Distance Learning | **Working scientifically****9H3 Nano particles****9H1Being objective** | KS3 | * understand the importance of obtaining evidence in order to answer scientific questions
* understand how to record data using appropriate methods, including labelled scientific diagrams, tables, bar graphs, scatter graphs and line graphs.
* To be able to evaluate ways in which an investigation could be improved, in order to improve reliability and/or to answer further questions.
 | Interpretation of graphs | Maths, English and Art | <https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/><https://drive.google.com/file/d/1wBqwQ1WrzzvlKiekm-FaCIC_ciGl91Km/view?usp=sharing><https://drive.google.com/file/d/1OJhv7wmBJ2r7kqoC3j4xTQ9os0UR-HgZ/view?usp=sharing> | Assignment in the Century Tech | Quizizz, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app.  | Nano particles, objective, fair tests. |  |
| **Spring Break****(28/03/2021-08/04/2021)** |