جيمس مدرسة فاونديرز دبي GEMS Founders School DUBAI

Year	7
Subject	Science

High Performance Learning

Term	Date	Focus	Summary	Learning Outcomes
	10/04/23	Chemistry: Atoms and the Periodic Table	Periodic Table Atomic Structure	Use your knowledge to identify elements from the periodic table Summarise the development of Mendeleev's periodic table Predict if an element is a metal or non-metal based on its position in the periodic table Use your knowledge to define the terms atomic and mass number Analyse a diagram of an atom to identify the sub-atomic particles Calculate the number of protons, electrons and neutrons in an atom
	17/04/23	Chemistry: Atoms and the Periodic Table	Arranging Electrons Alkali Metals Non-Metals	Apply your knowledge to name the part of the atom in which electrons are found Determine the relationship between the number of outer electrons and group number Construct electron arrangement diagrams for atoms containing up to 20 electrons Apply your knowledge to name and write the symbols for the Group 1 elements Summarise the properties of the alkali metals Interpret observations from a demonstration to create a reactivity series of the alkali metals Apply your knowledge to describe the properties of halogens Summarise why the noble gases are unreactive Conduct an experiment to investigate the testing of non-metal gases on the Periodic Table
	24/04/23	Chemistry: Atoms and the Periodic Table Chemistry: Metals	Atoms and the Periodic Table Retrieval Practice Transition Metals Reactivity in Oxygen	Evaluate your knowledge of the Atoms and the Periodic Table topic Use your knowledge to identify the symbols of common transition metals Summarise common properties of all metals Compare and contrast the transition metals and alkali metals Use your knowledge to name the products formed with metals react with oxygen Demonstrate the reaction of magnesium with oxygen Evaluate the different methods that protect iron from reacting with oxygen
	01/05/23	Chemistry: Metals	Reactivity Series Reporting a Reactivity Investigation	Apply your knowledge to describe what can be determined by the reactivity series Conduct an experiment to determine which metals are more reactive in water and acid Interpret observations to predict the reactivity series Apply your knowledge to determine the variables for an investigation Construct a table and/or graph to present your results Evaluate your results to write a valid conclusion supported by evidence
	08/05/23	Chemistry: Metals	Sourcing Metals Using Metals	Use your knowledge to describe what is meant by a metal ore Construct a summary detailing different extraction techniques and the metals they can extract Justify the importance of recycling metals and explore the abundance of different metals Use your knowledge to list everyday uses of different metals on the Periodic Table Analyse the properties of different metals to determine an appropriate use Evaluate the use of metals in different scenarios and determine if other materials may be more suitable

Term 3	15/05/23	Chemistry: Metals Chemistry: Chemical Reactions	Metals Retrieval Practice Chemical Reactions or Physical Change Signs of a Chemical Reaction	Evaluate your knowledge of the Metals topic Use your knowledge to name the processes involved with changes the physical state of a substance Compare and contrast the features of a physical change and chemical reaction Evaluate the outcome of an everyday process to determine if it is a physical reaction or chemical change Use your knowledge to list signs of a chemical reaction Analyse everyday reactions to determine the signs of a chemical reaction observed Conduct different experiments to demonstrate different signs of a chemical reaction
	22/05/23	Chemistry: Chemical Reactions	Naming Compounds Writing Word Equations	Apply your knowledge to determine the number of elements present from the name ending Construct the name of a compound from the elements present Predict the elements present from the name of the compound Use your knowledge to name the product of a chemical reaction Analyse a chemical reaction to identify and name the reactants and products Construct word equations for a range of chemical reactions
	29/05/23	Chemistry: Chemical Reactions	Chemical Reactions Retriveal Practice	Evaluate your knowledge of the Chemical Reactions topic
	05/06/23	Chemistry: Chemical Analysis	Elements, Mixtures and Compounds Solubility of Substances	Use your knowledge to define an element, mixture and compound Analyse everyday examples to determine if they are an element, mixture or compound Create diagrams to model an element, mixture and compound Apply your knowledge to define key terms including soluble, insoluble, solvent and solution Determine the relationship between solubility and temperature Plan an investigation to demonstrate the relationship between solubility and temperature
	12/06/23	Chemistry: Chemical Analysis	Separating Substances Paper Chromatography Diluting Solutions	Apply your knowledge to name the apparatus required for a filtration and an evaporation Conduct a filtration and evaporation Evaluate the use of filtration and evaporation to separate different substances Use your knowledge to explain how paper chromatography works Evaluate the use paper chromatography to separate coloured substances Interpret results to perform Rf calculations Apply your knowledge to define concentration Calculate the concentration of given solutions using n= c x v Plan an experiment to dilute a solution to different concentrations
	19/06/23	Chemistry: Chemical Analysis	Water Purification Chemical Analysis Retrieval Practice	Use your knowledge to discuss the importance of water purification Plan a process to purify a sample of sea water to use for drinking water Evaluate the use of chlorination and fluorination in the water purification process Evaluate your knowledge of the Chemical Analysis topic
	26/06/23	Chemistry Retrieval	End of Term Retieval of all Chemistry and Feedback	The success criteria explored for the Chemistry term will be assessed Evaluate your knowledge of the Chemistry content explored Determine the skill (Recall, Application, HSW, Maths) that is your area of strength and area of development to inform focus for next term Analyse your performance for each of the HPL Skills to determine your area of strength and area of development to inform focus for next term
	03/07/23			