

SRI LANKAN SCHOOL - MUSCAT SCHEME OF WORK ACADEMIC YEAR 2016 / 2017

CLASS : YEAR 9					SUBJECT: Science (Chemistry)		TEACHER : Shermila Liyakath	
Month	No.of Periods	Unit No.	TOPIC / DETAILS	Intended Learning Objectives		Remarks		
September 2016			School Reopens - 1st Term					
Week 1	1	8.1	Atomic Structure	Identifies a simple (Dalton) atomic model.				
				Name the three sub- atomic particles, and describe their properties.				
Week 2	2	8.2	Enquiry Finding Electrones	Describes how scientists work using historical examples.				
Week 3	1	8.3	Discovering the nuclues	Describes the method and discoveries of Rutherford.				
				Describes the difference between atoms, elements and compounds.				
Week 4	2	8.4	Protone, electrones and the periodic table	Draws the structure of atoms of first 20 elements.				
				Describes patterns in the structures of three atoms.				
Week 5	2	8.5	Extension: Proton number, nucleon number, and isotopes	Works out the proton number and nucleon number of an atom.				
				Monthly Test Explains what isotopes are.				
	2	8.6	The Group 1 elements	Describes trends in properties of the Group 1 elements.				
October 2016								
Week 6	2	8.7	The Group 2 elements	Describes trends in the properties of the Group 2 elements				
Week 7	2	8.8	The Group 7 elements	Describes trends in the properties of the Group 7 elements				
				Learns chemical symbols and formulae for elements and compounds.				
				Identifies conservation of mass changes of state and chemical reactions.				
Week 8	2	8.9	Enquiry : Looking at secoundry data chlorinating water	Looks critically at sources of secoundry data.				
Week 9	2			Monthly Test				
November 2016								
Week 10	2	8.10	Periodic trends	Describes trends in periods of the periodic table.				
				Describes patterns in data.				
				Identifies the varying of physical and chemical properties of different elements.				
				Learns the principles underlying the Mendeleev Periodic Table.				
				Evaluates the periodic table: Periods and groups, metals and non metals.				
				Learns how patterns in reactions can be predicted with reference to the Periodic Table				
Week 11	2	8.11	Enquiry: How scientists work inside sub-atomic particles	Discribes how scientists work today.				
				Explains energy changes on changes of state (Qualitative)				

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Week 12	2	9.1	Energy changes in chemical reactions	Explains different between exothermin and endothermic reactions.		
				Explains combustion, thermal decomposition, oxidation and displacement reactions.		
Week 13	2	9.2	Enquiry : Investigating fuels	Learns how to plan an investigation, obtain evidence , and draw conclusion.		
Week 14	1		Revision			
December 2016						
Week 15	2		Revision and 1st Term test			
Week 16	1st Term End Exams					
Week 17	Paper Correction					
Week 18	December Vacation					
Week 19	December Vacation					
January 2017			School Reopens - 2nd Term			
Week 20	2	9.3	Extension: Choosing fuels	Considers the advantages and disadvantages of vehicle fuels		
Week 21	2	9.4	Extension : Calculating food energy	Describes how to measure the heat released when food burns.		
Week 22	2	9.5	Enquiry : Investigating endothermic changes	Plan how to investigate an endothermic process.		
Week 23	2	10.1	The reactions of metals with oxygen.	Learns chemical reactions as the re-arrangement of atoms.		
				Represents chemical reactions using formulae and using equations.		
				Investigates the burning reactions of metals.		
				Investigates combustion, thermal decomposition and oxidation of metals.		
	10.2	The reactions of metals with water.	Describes how metals react with water.			
			Learns the properties of metals and non-metals.			
		Monthly Test				
		Identifies the chemical properties of metal and non-metal oxides with respect to acidity.				
February 2017						
Week 24	2	10.3	The reaction of metals with acids	Describes how metals react with acids.		
Week 25	2	10.4	The reactivity series.	Learns the reactivity series.		
				Plan an enquiry and interpret evidence to work out the position of an unknown metal in the reactivity series.		
	2	10.5	Enquiry : Metals in the reactivity series	Monthly Test		
				Plan an enquiry and interpret evidence to work out the position of an unknown metal in the reactivity series.		

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Week 26	2	10.6	Metal displacement reactions	Explains what displacement reactions are, and how they are useful.	
				Monthly Test	

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March 2017					
Week 27	2	10.7	Using the reactivity series: extracting metals from their ores.	Explains the link between the position of a metal in the reactivity series, and how the metal is extracted from its ore.	
Week 28	2	10.8	Extension:Writing symbol equations	Writes balanced symbol equations for simple reactions.	
Week 29			Revision		
Week 30			Revision and 2nd term test		
April 2017					
Week 31	2nd Term End Exams				
Week 32	Report work				
Week 33	April Vacation				
School Reopens - 3rd Term					
Week 34	2	11.1	Making salts-acids and metals	Describe how to make salts by reacting acids with metals to produce salt and hydrogen.	
Week 35	2	11.2	Making salts-acids and carbonates	Describes how to make salts by reacting acids with carbonates.	
May 2017					
Week 36	2	11.3	Extension: Making salts- acids and alkalis	Defining acids and alkalis in terms of neutralisation reactions.	
				Describe how to make salts plus water by reacting acids with alkalis.	
Week 37	2	11.4	Extension: Making salts- fertilisers	Identify salts used as fertilisers.	
Week 38	2	12.1	Rates of reaction	Identifies how to follow the rate of a reaction that produces a gas.	
		12.2	Concentration and reaction rate	Describe and explain how concentration affects reaction rate.	
Week 39	2	12.3	Temperature and reaction rate	Describes and explain how temperature affects reaction rate.	
Week 40	2	12.4	Surface area and reaction rate	Describe and explain how surface area affects reaction rate.	
June 2017					
Week 41	2	12.5	Catalysts and reaction rate	Explains what catalysts do.	
				Describe and explain how catalysts affect reaction rate.	
Week 42			Revision		
Week 43			3rd Term end exams		
Week 44	Report work				
Summer Vacation					