

SRI LANKAN SCHOOL - MUSCAT		SCHEME OF WORK		ACADEMIC YEAR 2016/ 2017	
CLASS : Year 12			SUBJECT: Physics		TEACHER : Dinesh Weerasinghe
Month	No.of Periods	Unit No.	TOPIC / DETAILS	Intended Learning Objectives	Remarks
September					
School Reopens - 1st Term					
Week 1	4	1	SI Units	will be able to understand the SI Units.	
Week 2	10	1.1	Rectilinear Motion	will be able to Understand the basic concept such as vectors, scalars, distance, displacement, speed, velocity and acceleration.	
Week 3			ID HOLIDAYS		
Week 4	10	1.2	Graphs	will be able to identify the properties and shapes of distance time, displacement time, speed time, velocity time and acceleration time graphs. will be able to investigate the speed and the acceleration of glider using light gate system.	
Week 5	10	2	Newton's laws of Motion	will be able to identify the properties of different type of forces. will be able to describe the concept of Resultant force. will be able to explain newtons laws of motion.	
October					
Week 6	8		Revision		
Week 7	10	3	Work Energy and power	will be able to recognize work as a product of force and distance moved along the direction of the force. Will be able to identify power as rate of change of energy. will be able to explain law of conservation of energy	
Week 8	10	3.1	Fluids	will be able to Identify the concepts such as Density Pressure and upthrust.	
Week 9	10	4	Fluids	will be able explain the viscosity of fluids and Stokes law Will be able to describe Terminal velocity and viscous drag. Will be able to describe Streamline and Turbulent flows.	
November					
Week 10	6		Solid Materials	will be able to describe and identify the properties of solid materials. Will be able to describe hooke's law.	
Week 11	10	5	Solid Materials	will be able to Identify stress as the ratio between force and perpendicular area and strain as ratio between increase in length and original length. Will be able to explain young,s modulus as a ratio between stress and strain. Will be able to Identify the shape and properties of stress strain graphs.	
Week 12	10		Revision		
Week 13	10	6	Revision		
Week 14	10		Revision		
December					
Week 15	4		Revision		

Week 16			1st term end exams		
Week 17			1st term tests and report work		
Week 18 / 19			December Vacation		
January 2017					
School Reopens - 2nd Term					
Week 20	10	7	Nature of waves	will be able to identify types of waves such as Transverse waves and Longitudinal waves. Will be able to list uses of different types of waves. Will be able to give examples of applications of waves.	
Week 21	10	8	Transmission and Reflection of waves	will be able to identify properties of waves such as reflection and refraction. Will be able to calculate refractive index and Critical angle of a certain medium.	
Week 22	10	9	Polarization and doppler effect	will be able to describe polarization and doppler effect. will be able to identify the difference between polarized and unpolarized radiation.	
Week 23	10	10	Superposition of waves	will be able describe Principle of superposition of waves. Will be able to list applications of superposition of waves.	
February					
Week 24	10	11	Standing waves	Will be able to describe Standing waves. Will be able to identify properties of standing waves.	
Week 25	10	12	Revision		
Week 26	10	13	Charge and Current	will be able to describe current as rate of flow of charge. Will be able to identify the difference between conventional current direction and electron flow direction.	
Week 27	6	14	Potential difference , electromotive force and power	will be able to describe potential difference as the amount of energy given to component of the circuit by the unit charge . Will be able describe electromotive force as the amount of energy given to the unit charge by the power supply.	
March					
Week 27	6	15	Electric circuits	will be able to identify difference between series and parallel circuits. Will be able to explain and use kirchhoff,s first and second law to solve circuit calculations.	
Week 28	10		Nature of light	will be able to identify light as a stream of energy packets called photons. Will be able to explain that photon has unique energy which is given by an equation $E=hf$. Will be able to list basic concept of Quantum physics	
Week 29	10		Atomic spectra	will be able to describe properties of continuous and lines spectra . will be able to identify difference between absorption spectra and emission spectra. Will be able describe relation ship between energy levels and spectrum.	
Week 30	10		Revision		
Week 31			2nd term end exams		
April					
Week 32			2nd term end exams and report work		
Week 33			April vacation		
Week 34			School Reopens - 3rd Term		

