Dharmapala College - Pannipitiya

Grade 10 Syllabuses – Science- 20

FIRST TERM Grade 10 Science Syllabus (Biology)							
Unit	**Competencies**		**Competency levels**	**Time**	**Scheduled date**	**Date of Completion**	**Remarks**
1.0	**Uses standard methods in the classification and nomenclature of organisms.**	1.1.	Classifies organisms using suitable methods.				
		1.2.	Uses scientific nomenclature to differentiate between species of organisms.				
2.0	**Investigates the levels of organization in organisms**	2.1	Discovers the structure of plant and animal cells on the basis of microscopic observation				
		2.2.	Investigates the diversity in plant and animal tissues on their structure and function.				
		2.3.	Investigates the patterns of organization in the body of organisms.				
3.0.	**Investigates the major biological processes in organisms.**	3.1	Contributes to maintain the process of photosynthesis at an optimum level.				
		3.2.	Investigates how the process of transport contributes to the survival of plants.				
		3.3.	Investigates how transpiration affects the survival of plants.				
		3.4.	Inquires how blood contributes to the functioning of human body				

4.0.	**Involves oneself in the prevention of diseases related to main systems in the human body.**	4.1.	Acts to prevent diseases related to the human circulatory system				
		4.2	Acts to prevent diseases and ailments related to the respiratory system.				
		4.3	Acts to prevent diseases and ailments related to the digestive system.				
		4.4	Acts to prevent diseases and ailments related to the excretory system.				

SECOND TERM Grade 10 Science Syllabus (Chemistry)							
Unit	Competencies		Competency levels	Time	Scheduled date	Date of Completion	Remarks
	1.0.Inquires scientific discoveries regarding the structure and the quantity of matter.		1.1 Investigates scientific discoveries regarding the atomic structure.				
			1.2 Uses scientific conventions to highlight diversity of atoms.				
			1.3.Analyses properties of a compound with reference to its bonds.				
			1.4.Uses mole to quantify elements and compounds.				
	2.0.Inquires periodic patterns in the properties of elements		2.1 Examines the variations in properties of elements according to their atomic numbe				
			2.2 Examines the relation between properties of elements and their position in the periodic table.				
	3.0 Uses chemical changes approriately to fulfill life persuits.		3.1 Classifies chemical reactions.				

			3.2. Inquires the interactions between matter and electricity.				
			3.3. Inquires reaction patterns in pure metals				
			3.4. Uses suitable methods for extraction of metals				
			3.5.Controls the rate of chemical reactions.				
			3.6.Takes measures to prevent corrosion of metal.				
			3.7.Controls combustion appropriately.				
			3.8.Exihibits an awareness in extinguishing fire.				
			3.9.Examines various properties of gases using suitable setups.				
			3.10.Investigates experimentally the heat changes associated with chemical reactions.				
			3.11.Investigates how weathering of rocks contributes to the formation of soil.				

THIRD TERM Grade 10 Science Syllabus (Physics)							
Unit	**Competencies**		**Competency levels**	**Time**	**Scheduled date**	**Date of Completion**	**Remarks**
1.0	**Uses relations of force and straight line motion to fulfill needs in life pursuits.**	1.1	Uses graphs of motion to communicate information related to the motion of an object.				
		1.2.	Inquires the motion of an object using speed-time and velocity-time graphs.				
		1.3.	Predicts time ahead situations of objects in straight line motion.				
		1.4.	Inquires how force is applied in terms of Newton's laws of motion, in day to day life.				
		1.5.	Conducts experiments to determine the magnitude of force.				
		1.6.	Uses various methods by which interactions occur among objects.				
		1.7.	Manipulates day to day life pursuits using friction where appropriate				
		1.8.	Inquires how various objects maintain equilibrium under the action of co-planer forces				
		1.9.	Conducts experiments to alter he rotational effect of force.				
2.0	**Investigates how thrust is exerted on objects by fluids.**	2.1.	Makes use the pressure exerted by solids, liquids and gases in day to day activities.				
		2.2	Investigates forces acting on objects in liquids.				
3.0	**Uses mechanical energy in day to day pursuits**	3.1	Investigates ways mechanical energy contributes to work				
		3.2	Estimates the value of mechanical energy				
		3.3.	Inquires various methods by which the work is made easy.				

4.0	**Uses methods of measuring transference of thermal energy.**	4.1	Measures change in temperature due to the exchange of heat.				
		4.2.	Calculates the quantity of heat gained by a body.				
		4.3.	Uses thermal energy efficiently.				
5.0	**Uses phenomena and principles related to electricity in day to day life**	5.1	Generates and stores electric charges .				
		5.2.	Uses the relation between potential difference and current in day to day persuits.				
		5.3.	Investigates how resistance affects current.				
		5.4.	Constructs simple electric circuits to fulfill the need.				