Year		Term		Subject				

No.	Unit/competency	Lesson/competency level	Teaching leaning process/learning outcomes	No. of periods	Quality Inputs	Proposed Date	Date taught	Signature of teacher	Note of supervision
	1.0: Explores life and life processes in order to improve productivity of biological systems	1.1: Investigates the importance of chemical basis of life	1.State carbohydrates, proteins, lipids and nucleic acids as major bio molecules of living matter	3	A4 sheets,Laborarory equipments and chemicals,Reference materials,Pictures of nutrient deficiencies				
			2.State that carbon, hydrogen, oxygen and nitrogen are most abundant elements in living matter						
			3.State the composition and examples of carbohydrates, proteins, lipids and nucleic acids.						
			4.Introduce enzymes as proteins which catalyze chemical reactions in the cell or body.	2					
			5.Conduct simple activities to demonstrate the action of enzyme.						
			6.Briefly explain unique characteristics of water related to life (respiratory medium, as a solvent, thermal regulation of body, as a medium of transport, and living medium).	2					
			7.Accept that water is essential for life forms on the Earth.						
			8.Describe the roles of carbohydrates, proteins, lipids, nucleic acids, minerals, vitamins and water.	1					
			9.Illustrate the importance of minerals and vitamins to the biological systems.	2					
			10.State the deficiencies of minerals and vitamins.						
			11.Appreciate the nature of living matter.						
				10					
	3.0: Utilizes various forms of energy, their interaction with matter and energy transformations by maintaining efficiency and effectiveness at an optimum level	3.1: Investigates the quantities related to rectilinear motion and the use of graphs of motion to analyze the rectilinear motion	1.Describe physical quantities related to motion (distance, displacement, speed, velocity and acceleration).	1	A smooth trolley, a long pin, a small amount of clay, a stop watch, a long smooth flat plank (8 feet x 6 inches), a metre tape, a clamp stand				
			2.Distinguish between average speed and speed, average velocity and velocity.						
			3.Solve problems using average speed = distance travelled/time taken average velocity = displacement/time taken acceleration = change in velocity/time taken	1					
			4.Construct s-t graphs using given data and data obtained from a simple activity.	2					
			5.Describe velocity from s-t graphs.						
			6.Construct v-t graphs using given data	1					
			7. Explain that gradient obtained from v-t graph is the acceleration of motion.						

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				2					
			8.State that the area under the curve of a v-t graph is the displacement of the object.						
			9.Obtain relevant information from s-t and v-t graphs.	1					
			10.Accept the importance of the information obtained from s-t and v-t graphs in describing the nature of rectilinear motion of a body	1					
				9					
	2.0: Investigates matter, properties of	2.1: Investigates scientific findings about structure of	1 .Describe planetary model of atoms.	2	Samples of metals, non metals and metalloids given in the syllabus, a modern full periodic table, wire, beads of different sizes and colours, Styrofoam boards, marker pens				
			2. Accept that electrons exist in energy levels and there is a maximum number of electrons that each energy level can occupy.						
			3.Describe electronic configuration as a way of expressing the arrangement of electrons in energy levels.	1					
			4.Write the electronic configuration of first 20 elements in the periodic table.						
			5.Construct periodic table of first 20 elements based on their electronic configuration.	2					
			6.Describe the terms group and period.						
			7.Derive a relationship between the position of an element in the periodic table and its electronic configuration.						
			8. Define the term 'isotope'.	1					
			9.Denote isotopes of an element with the standard notation.						
			10.Accept that classification of elements facilitates learning about elements.						
			11.Describe the term first ionization energy and electronegativity	2					
			12.Identify the variation pattern of first ionization energy and electronegativity of elements along a period and down a group.						
			13.Accepts that there is a pattern in the variation of first ionization energy and electro negativity along a period and a group.						
			14.Describe the properties of metals, non metals and metalloids in relation to the given examples.						
			15.State the acidic, basic and amphoteric nature of oxides formed by of third period determents	2					
			16. Define valency of an element.						
			17.Deduce the valency of first twenty elements based on their positions in the periodic table.	2					

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			18. Formulate chemical formulae of compounds using valency.						
				12					
	3.0: Utilizes various forms of energy, their interaction with matter and energy transformations by maintaining efficiency and effectiveness at an optimum level	3.2: Uses Newton's laws of motion to describe the effects of a force	1. conduct simple activities to show the effect of a force. describe the concept of force using Newton's first law of motion.	1	Smooth pulleys, smooth trolleys, spring balances, rubber bands				
			2. State Newton's laws of motion.						
			3. Describe the concept of force using Newton's first law of motion	1					
			4. Show experimentally that (when m is constant) (when F is constant).	2					
			5. Express Newton's second law of motion as F=ma. E						
			6. Use the relationship F=ma relevantly in appropriate situations to solve problems						
			7. Define the SI unit of force.	1					
			8. Express Newton's third law of motion.						
			9. Explain that action and reaction are two mutual forces equal in magnitude and opposite in direction which are acting in the same straight-line on two bodies.						
			10. Express that weight of an object is the forces attracted towards the earth and it is equal to the product of the mass and the gravitational acceleration	2					
			11. Appreciate the importance of Newton's laws of motion to explain the applications of force in day-to-day life.						
			12.Explain the concept of momentum using relevant examples from day-to-day lif	2					
			13 .Conduct simple activities to show the factors affecting momentum.						
			14. represent momentum as the product of mass and velocity.						
			15. accept that the concept of momentum can be used to explain the relevant day-to-day phenomena.						
	3.0: Utilizes various forms of energy, their interaction with matter and energy transformations by maintaining efficiency and	3.3: Investigates the nature and uses of friction	1. conduct simple activities to show the nature of friction.. .	1	A cuboid wooden block of equal size, sand papers, rubber bands, spring balances and newton balances				
			2. explain the variation of static frictional force between two surfaces with the external force						
			3. conduct experiments to identify the factors affecting the limiting frictional force (It depends on the nature of the surfaces and the normal reaction. It does not depend on the area of the surfaces)	1					
			4. distinguish ' static friction', 'limiting friction' and 'dynamic friction'.						

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	effectiveness at an optimum level		5. state that the dynamic frictional force acts on a moving object and it is constant. Also it is slightly lower than the limiting frictional force.	1					
			6. accept that friction always opposes relative motion between two surfaces. However, it is also utilized to produce motion.						
			7. appreciate the uses of friction in human activities.						
	1.0: Explores life and life processes in order to improve productivity of biological systems	1.2: Discovers the structure of plant and animal cells	1. classify a set of given cells as plant and animal cells using specific features.	2					
			2. state the concept of a typical cell						
			3. state that the cell is structural and functional unit of life, all organisms are made up of one or more cells and all cells arise from pre-existing cells						
			4. appreciate cell as a structural and functional unit of life.						
			5. accept the microscopic nature of cell organelles.	1					
			6. compare and contrast the structure of the animal and plant cells.	2					
			7. outline briefly the structure and functional relationship of cell organelles.						
			8. label organelles in a given diagram of cell.						
			9. explain cell growth and cell division.	2					
			10. state that mitosis and meiosis are the types of cell division						
			11. compare mitosis and meiosis.						
			Revision						
			Term Test						