

**CONDENSED COURSE GENERAL
SCIENCE Grade 8th**

Content			Time Allocated Teaching +Assessment)	Remarks
Unit No & Name	Topics	Student Learning Outcome		
Unit 1 Human Organ System	1.1. Human Nervous System 1.2. Reflex Action	<ul style="list-style-type: none"> • Describe the structure and functions of the nervous system • Describe the working of nervous system through a model • Explain a reflex action with an example • Differentiate between voluntary and involuntary actions they have experienced 	04+01	
Unit 2 Heredity in	2.1. Cell Division 2.2. Heredity	<ul style="list-style-type: none"> • Differentiate between meiosis and mitosis • Identify DNA and chromosomes in the cell diagram 	05+01	

Organisms	2.3. Basis of Heredity	<ul style="list-style-type: none"> Define heredity and recognize its importance in transferring of characteristics from parent to offspring 		
Unit 3 Biotechnology	3.2. introduction of gene into Bacterium 3.3. Genetic Modification	<ul style="list-style-type: none"> Define bacterium Explain how genes are introduced into bacterium Explain the genetic modification 	02+01	
Unit 4 Pollutants and their Effects on Environment	Introduction 4.1. sources, properties and effects of Air pollution 4.2. Effects of Human activities on Environment 4.3. Saving the Earth	<ul style="list-style-type: none"> Explain the sources, properties and harmful effects of Air Pollutants. List problems in Human organ systems caused by Air pollutants. Plan and conduct a campaign that can help to reduce air Pollution in their local environment. Explain the Greenhouse effect Describe the causes and effects of ozone depletion Carry out a research to explain global warming and its likely Effects on life on earth. Design a model to explain the Greenhouse effect. Explain the formation of acid rain. Identify the consequences of Acid rain on living and nonliving things. Define deforestation. State the effects of deforestation on the environment. Identify the human activities that have long term adverse Consequences on the environment. Explain the importance of local and global conservation of natural Resources. Suggest ways in which individuals, organization and government Can help to make earth a better place to live. 	04+01	
Unit 5 Chemical Reactions	5.1. Chemical Reactions 5.2. Balancing the Chemical Equations 5.3. Law of Conservation of Mass 5.4. Types of Chemical Reactions	<ul style="list-style-type: none"> Define chemical reactions and give examples. Explain the rearrangement of atoms in chemical reactions. Explain balancing of a chemical equation. Define the Law of Conservation of Mass. Identify the nature of a chemical change in various reactions. Describe changes in the states of matter in a chemical reaction. Explain the types of Chemical reactions with examples. 	03+01	

	5.5. Energy changes in Chemical Reactions	<ul style="list-style-type: none"> Explain the energy changes in Chemical reaction. Describe the importance of exothermic reactions in daily life. 		
Unit 6 Acids, Alkalis and Salts	6.1. Acids 6.2. Alkalis 6.3. Salts 6.4. PH and its range (0-14) in aqueous medium 6.5. indicators and their uses	<ul style="list-style-type: none"> Define the terms acid, alkali and salt Define the terms acids, alkalis and salts. Describe the properties of acids, alkalis and salts. Explain the uses of acid, alkali and salt in daily life. Define indicators. Use indicators to identify acids, alkalis and neutral substances. Investigate the color changes in the extracts of various flowers and vegetables by adding acids and alkalis. 	06+01	
Unit 7 Force and Pressure	7.1. Pressure , Force and Area 7.1.1. Units of Pressure 7.2. Water Pressure 7.3. Pascal's Law 7.4. Gas pressure in a closed container	<ul style="list-style-type: none"> Define the term pressure Identify the units of pressure <p>Explain water pressure in a container Define pascal law Describe the causes of gas pressure in a container</p>	06+01	
Unit 8 Measurement of Physical Quantities	8.1. Physical Quantities 8.2.1. Length 8.2.3. Mass 8.2.4. Time 8.3 measuring instruments	<ul style="list-style-type: none"> Define a physical quantity with examples Apply the prefixes milli-, kilo-, centi and interpret the units Interconversion of smaller units and bigger units Select and use measuring instruments 	05+01	
Unit 9 Sources and Effects of Heat Energy	9.1. Sources and Effects of Heat Energy 9.2. Thermal Expansion and Contraction 9.2.1. Effect of Heat on Solids 9.2.3. Effect of Heat on Gases	<ul style="list-style-type: none"> Describe the sources and effects of heat Explain thermal expansion of solids, liquids and gases Explore the effects and applications of expansion and contraction of solids Describe the working of thermometer 	04+01	
Unit 10 Lenses	10.1. Lenses 10.2. Types of lenses	<ul style="list-style-type: none"> Define lens Differentiate between the different types of lenses 	05+01	

	10.2.1. Principal Focus and Focal Length of Lenses 10.3 Image formation by Ray diagram	<ul style="list-style-type: none"> Describe the image formation using the lens by ray diagram 		
Unit 11 Electricity in Action	11.1. Generating Electricity 11.1.1 How does a Power Station work? 11.3 Electronic system	<ul style="list-style-type: none"> Design an experiment to generate electricity Explain the working of the model generator Design and demonstrate the working of a power station Describe the basic components of an electronic system 	05+01	
Unit 12 Exploring Space	12. 1 Telescope, Space craft and Spectroscope 12.2. Space Exploration 12.2.4 Technological tools used in Space Exploration	<ul style="list-style-type: none"> Describe how human have improved tools and technology used in space exploration Describe development of tools and technologies used in space exploration Identify the technological tools used in space exploration 	04+01	