GRADE 10 HUMMING BIRD GENERAL SCIENCE SCHEMES OF WORK TERM 2

WK	LSN	STRAND	SUB-STRAND	LESSON LEARNING OUTCOMES	LEARNING EXPERIENCES	KEY INQUIRY QUESTIONS	LEARNING RESOURCES	ASSESSMENT METHODS	REFL
1	1	Life Science	Microorganisms -Types of microorganisms	By the end of the lesson, the learner should be able to: - Identify the types of microorganisms that affect human beings including viruses, bacteria and fungi - Describe the key characteristics of each type of microorganism - Relate microorganisms to real-life health challenges such as how viruses like influenza and COVID-19 cause respiratory infections while bacteria like Salmonella cause food poisoning	- Take a virtual tour of a microbiology laboratory using a digital device to observe different types of microorganisms -Study diagrams of viruses, bacteria and fungi and identify each type -Discuss findings with peers and write short notes on the types of microorganisms and their characteristics	What types of microorganisms affect human beings and what are their key characteristic s?	Humming Bird General Science pg. 111 - Digital devices with internet access (virtual lab tour) - Diagrams of microorganisms	- Oral Questions Observation -Written assignments	
	2	Life Science	Microorganisms -Modes of transmission and infections	By the end of the lesson, the learner should be able to: - Explain the modes of transmission of microorganisms in human beings including airborne, direct contact, contaminated food/water, vector-borne and bloodborne transmission - Identify the types of infections caused by bacteria, viruses and fungi in human beings - Relate modes of transmission to real-life public health measures such as wearing masks in crowded areas to prevent airborne viral infections	- Search for information on modes of transmission of microorganisms using digital or print media -Plan and carry out a visit to a nearby health centre to observe how microorganisms spread and engage with health officers -Study case scenarios and identify the possible microorganism responsible and how it spread	How do different microorganis ms spread from one person to another and what infections do they cause?	Humming Bird General Science pg. 111 - Digital devices with internet access - Case scenario cards - Resource persons (health officers)	- Oral questions Observation -Written assignments	
	3	Life Science	Microorganisms -Modes of transmission and infections	By the end of the lesson, the learner should be able to: - Explain the modes of transmission of microorganisms in human beings - Identify the types of infections caused by bacteria, viruses and fungi in human beings Relate modes of transmission to real-life public health measures such as wearing masks in crowded areas to prevent airborne viral infections	- Search for information on modes of transmission of microorganisms using digital or print media -Plan and carry out a visit to a nearby health centre to observe how microorganisms spread and engage with health officers -Study case scenarios and identify the possible microorganism responsible and how it spread	How do different microorganism ms spread from one person to another and what infections do they cause?	Humming Bird General Science pg. 111 - Digital devices with internet access - Case scenario cards - Reference books Resource persons (health officers)	- Oral questions – Observation Written assignments	

	4	Life Science	Microorganisms - Prevention and control of microorganism infections	By the end of the lesson, the learner should be able to: - Describe methods of controlling and preventing infections caused by microorganisms including good hygiene, vaccination, safe food handling and use of protective equipment - Match the mode of transmission to the appropriate prevention method for bacterial, viral and fungal infections - Relate prevention measures to real-life community health practices such as boiling water to prevent cholera and handwashing to prevent COVID-19	- Read Christine's article on preventing infections and search for additional prevention methods using print or digital media -Study case scenarios on food poisoning, fungal infections and cholera and suggest appropriate control measures -Write notes on methods of controlling and preventing infections and share with peers	How can we prevent and control the spread of infections caused by viruses, bacteria and fungi in our communities ?	Humming Bird General Science pg. 111 - Digital devices with internet access - Case scenario cards - Reference books - Charts on prevention methods	- Oral questions - Observation -Written assignments	
	5	Life Science	Microorganisms - Economic importance of microorganisms	By the end of the lesson, the learner should be able to: - Explain the economic importance of microorganisms in food production, medicine, agriculture, biofuel production and environmental management - Carry out a project investigating mould growth on food substrates Relate the economic role of microorganisms to real-life industries such as pharmaceutical companies using bacteria to produce antibiotics and farmers using nitrogen-fixing bacteria to improve soil fertility	- Watch videos or virtual simulations on microbial applications in food production, medicine and waste management -Plan a visit to a dairy farm or food processing plant to observe how microorganisms are used in production -Compile a report and sensitise the community on the significance of food preservation	How do microorganisms contribute to economic development in food production, medicine, agriculture and environment al management ?	- Humming Bird General Science pg. 111 Digital devices with internet access - Bread samples for mould growth investigation - Reference books Resource persons from dairy or food processing plants	- Projects - Oral presentations -Written reports	
	2	Matter and Chemical Reactions	The Periodic Table - Electron arrangement of atoms	By the end of the lesson, the learner should be able to: - Write the electron configuration of the first 20 elements - Draw electron arrangement diagrams for selected elements - Recognise how electron arrangement determines an element's chemical behaviour, similar to how a building's structure determines its function	- Carry out activities to determine electron arrangement of the first 20 elements - Draw electron arrangement diagrams for sodium, chlorine, helium and potassium - Arrange elements by similarities in electron configuration	How does the electron arrangement of an atom determine its chemical properties?	- Humming Bird General Science pg. 128 - Digital devices - Periodic table - Reference books	- Oral questions - Observation - Written tests	