GRADE 10 BIOLOGY

CHRISTMAS TERM PLAN

2023 – 2024

TERM ONE: SEPTEMBER 4– DECEMBER 19

		THEORY	LABS/QUIZ/TESTS
SEPTEMBER			
September 11-15	**WEEK 1** **3 Sessions**	**INTRODUCTION TO BIOLOGY** ● Lab Rules ● Skills assessed ● Drawing Rules ● Tables and Graphs **ECOLOGY I** ● Classification	
September 18-22	**WEEK 2** **3 Sessions**	**ECOLOGY I cont'd** ● Ecological terms ● Interdependence – food chains and food webs	**LAB 1 – PRACTICE** ● **Classification of Plants** (dicot vs monocot mango and grass and simple vs compound breadfruit, mango, grass)
September 25-29	**WEEK 3** **3 Sessions**	**ECOLOGY I cont'd** ● Feeding relationships, I – carnivores etc., predator-prey relationships, trophic levels ● Feeding Relationships II – Symbiosis	
OCTOBER			
October 2-6 *(Heritage week-week might be*	**WEEK 4** **3 Sessions**	**ECOLOGY I cont'd** ● Energy flow in food webs	

affected)		and chains ● Carbon cycle ● Role of decomposers	
October 9-11 *(the week will be affected.)*	**WEEK 5** **3 Sessions**	**ECOLOGY II** ● Introduce Sampling Techniques – quadrat, line transect, bottles, nets, capture, mark & release ● Types of soil ● How is soil formed?	**LAB 2** ● **Sampling Method: Quadrat lab (trip)**
October 12-16		**MID TERM BREAK**	
(October 17-20) *(the week will be affected.)*	**WEEK 6** **1-2 Sessions**	**ECOLOGY II cont'd** ● Characteristics of soil types ● Importance of soil to organisms ● Soil erosion ● Fertilizers	**Soil type Presentation:** • Select a soil type from a prescribed list and do a presentation. Criteria will be provided.
October 23-27	**WEEK 7** **3 Sessions**	**1st SIX WEEKLY TEST**	**TEST 1** ● **Classification** ● **Ecology I** ● **Ecology II- Soils (types of soil, formation and characteristics) and Sampling**
NOVEMBER			
October 30 to November 3	**WEEK 8** **3 Sessions**	**CELLS** ● **Review of cells** ● **Animal and plant cells** ● Electron micrograph of typical plant and animal cell	**CLASS WORK:** • Worksheet on cells

		● Structure of bacterium and protist (Amoeba) Use of the microscope	
November 6-10	**WEEK 9** **3 Sessions**	**MITOSIS AND MEIOSIS** ● Stages of mitosis ● Role of mitosis in asexual reproduction	**LAB 3** ● Drawing of onion cells
November 13-24	**WEEK 10 & 11** **6 Sessions**	**MITOSIS AND MEIOSIS** ● Stages of meiosis ● Gamete formation – importance of meiosis ● Compare mitosis and meiosis	**Chart Project** • The stages of mitosis and meiosis.
November 27- December 1	**WEEK 12** **3 Sessions**	**MOVEMENT OF PARTICLES (cont'd)** ● Diffusion ● Osmosis ● Active transport	**LAB 4** ● Osmosis in Potato Strips
DECEMBER			
December 4-8	**WEEK 13** **3 Sessions**	**2nd SIX WEEKLY TEST**	**TEST 2-** ● **Mitosis and Meiosis** ● **Cells, Diffusion and Osmosis, Active transport**
December 11-15	**WEEK 14** **2 Sessions**	**PHOTOSYNTHESIS** (cont'd). ● Light and dark reactions ● Factors (limiting) which affect the rate of photosynthesis ● Adaptations of leaf for photosynthesis	**LAB 5** ● Matthias's PD Lab **LAB 6** ● Photosynthesis (Testing a Variegated leaf for Starch)

	WEEK 15 **3 Sessions**	**PLANNING AND DESIGN** Planning and design lab	**LAB 7** ● Investigative Project PD ***(1st draft due the 1st week in January)*** **Alternative Assessment - MAN'S IMPACT ON ENVIRONMENT (Presentation due in January)** ● Pollution – land, air and water ● Renewable and non-renewable resources ● Recycling – conservation ● Greenhouse effect
December 19	**WEEK 16** **3 Sessions**	**END OF TERM**	