DOYEN PUBLISHERS

HIGH SCHOOL SCHEMES OF WORK

BIOLOGY FORM 3

(Term 1, 2 & 3)

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BIOLOGY FORM 3 SCHEMES OF WORK – TERM 1

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	1	CLASSIFICATION 2	Review of binominal nomenclature	By the end of the lesson, the learner should be able to: • Classify common organisms into their main taxonomic units • Write scientific names of organisms correctly • List the kingdoms of organisms	• Reviewing the work done in classification 1 • Classifying and naming common organisms like maize, beans, domestic dog and jack	• Local environment • Potted plant • Use of preserved specimen of plants and animals	• Comprehensive secondary Biology students Bk. 3 page 1-2 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 1-3 • KLB teachers book 3 pages 1-3 • Principles of biology vol. 2 pages 1-4	
	2	CLASSIFICATION 2	Kingdom monera	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Kingdom monera	• Discussion on the general characteristics of Kingdom monera	• Local environment on a typical bacteria cell and different types of bacteria	• Comprehensive secondary Biology students Bk. 3 page • Teachers bk. 3 pages • KLB secondary Biology Students book 3 Page 3-4 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 5-6	
	3	CLASSIFICATION 2	Kingdom protoctista	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Kingdom protoctista	• Discussion on the general characteristics of Kingdom protoctista • Listing down the members of kingdom protoctista	• Local environment • Wall charts on protoctista	• Comprehensive secondary Biology students Bk. 3 page 3-6 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 3-4 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 6-8	
	4-5	CLASSIFICATION 2	Kingdom protoctista	By the end of the lesson, the learner should be able to: • Describe the general	• Observing, drawing and naming parts of spirogyra,	• Local environment • Hand lenses • Microscope	• Comprehensive secondary Biology students Bk. 3 page 3-6	

				characteristics of Kingdom protoctista • Observe, draw and name parts of spirogyra, amoeba, paramecium and euglena	amoeba, paramecium and euglena	• Protozoa infusion (cultured)	• Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 4-5 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 6-8	
2	1	CLASSIFICATION 2	Kingdom fungi	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Kingdom fungi • List down all the members of kingdom fungi	• Describing the general characteristics of Kingdom fungi • Naming and drawing organisms in this kingdom	• Local environment • Wall charts on fungi • Specimen of fungi • Hand lenses • microscope	• Comprehensive secondary Biology students Bk. 3 page 6-8 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 6 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 11-14	
	2	CLASSIFICATION 2	Kingdom fungi	By the end of the lesson, the learner should be able to: • Draw and name parts of bread mold (mucor), yeast and mushrooms	• Observing, drawing and labeling structures of yeast, bread mold and mushroom	• Hand lenses • Charts on yeast, mushrooms and bread mold • Live specimens e.g. mushrooms	• Comprehensive secondary Biology students Bk. 3 page 6-8 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 6 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 11-14	
	3	CLASSIFICATION 2	Kingdom plantae	By the end of the lesson, the learner should be able to: • Describe the main characteristics of kingdom plantae • Describe the main characteristics of bryophyta	• Discussion on the main characteristics of kingdom plantae • Describing and stating the main characteristics of bryophyta	• Local environment • Wall charts • Live specimens of moss	• Comprehensive secondary Biology students Bk. 3 page 8-9 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 7 • KLB teachers book 3 pages 12-27	

							• Principles of biology vol. 2 pages 15	
	4-5	CLASSIFICATION 2	Kingdom plantae	By the end of the lesson, the learner should be able to: • Identify examples of hyophyta • Observe draw and name parts of liverworts and moss plants	• Observing drawing and labeling structures of moss and liverworts • Asking and answering questions	• Local environment • hand lenses • Wall charts on bryophytes • Live specimens of moss plants	• Comprehensive secondary Biology students Bk. 3 page 8-9 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 7 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 15	
3	1	CLASSIFICATION 2	Kingdom plantae	By the end of the lesson, the learner should be able to: • Identify examples of pleridophyta • Observe draw and name parts of fern plant	• Discussing main characteristics of division pleridophyes • Stating and describing characteristics of pteridophytes	• Live specimen of fern • Local environment • Hand lenses	• Comprehensive secondary Biology students Bk. 3 page 9-10 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 8-9 • KLB teachers book 3 pages • Principles of biology vol. 2 pages 16	
	2	CLASSIFICATION 2	Kingdom plantae	By the end of the lesson, the learner should be able to: • Identify examples of division spermatophyta • Identify major sub-division of spermatophyta •	• Discussing main characteristics pleridophyes • Stating main characteristics of pleridophytes and their sub-division of the same I.e ginkgoales, cycadales and coniferles	• Live specimen spermatophytes • Wall charts on common spermatophytes	• Comprehensive secondary Biology students Bk. 3 page 10-11 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 9-10 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 17	
	3	CLASSIFICATION 2	Kingdom plantae -spermatophyta	By the end of the lesson, the learner should be able to:	• Discussing the characteristics of	• Live specimen of corn leaves	• Comprehensive secondary Biology	

				• List main characteristics of angiospermae • Differentiate between angiospermae and gymnospermae	angiospermae and gymnospermae • Differentiating between angiospermae and gymnospermae •	• Wall charts on angiospermae and gymnospermae	students Bk. 3 page 10-11 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 9-10 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 17	
	4-5	CLASSIFICATION 2	Kingdom plantae angiospermapyta	By the end of the lesson, the learner should be able to: • State the characteristics of angiospermapyta • Identify and state major characteristics of classes of angiospermapyta eg dicotyledonare &monocotyledonoe	• Differentiating between class monocotyledonae and dicotyledonae • Observing drawing and labeling parts of monocotyledonous plants	• Live specimen of both monocotyledenous and dicotyledenous plants • B;ade • Staining material • Handlenses • microscope	• Comprehensive secondary Biology students Bk. 3 page 11-12 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 10-11 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 18-20	
4	1	CLASSIFICATION 2	Kingdom animalia	By the end of the lesson, the learner should be able to: • describe the general characteristics of kingdom animalia	• discussion on the main characteristics of phylum anthropoda • stating and describing general characteristics of kingdom animalia	• Preserved specimen of kingdom animalia • wall charts showing different animals	• Comprehensive secondary Biology students Bk. 3 page 12 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 12-13 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 20-24	
	2	CLASSIFICATION 2	Phylum arthropda	By the end of the lesson, the learner should be able to: • describe the general characteristics of Phylum arthropda	• stating and describing the general characteristics of Phylum arthropda	• Preserved specimen of arthropods • Wall charts showing different arthropods	• Comprehensive secondary Biology students Bk. 3 page 14 • Teachers bk. 3 pages 1-8	

				• list down the classes of the Phylum arthropda	• discussing the characteristics of arthropods	• Local environment • hand lenses	• KLB secondary Biology Students book 3 Page 12-13 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 25-26	
	3	CLASSIFICATION 2	Class crutacea	By the end of the lesson, the learner should be able to: • describe the general characteristics of Class crutacea	• describing the general characteristics of Class crutacea • observing, drawing and labeling various types of crutacea	• preserved specimen of crutacea • wall charts showing diagrams of crutacea • local environment • hand lenses	• Comprehensive secondary Biology students Bk. 3 page 14 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 13-14 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 29	
	4-5	CLASSIFICATION 2	Class arachnida and insecta	By the end of the lesson, the learner should be able to: • describe the general characteristics of Class insect • describe the general characteristics of Class arachnida • list down the members of class arachnida and insecta	• discussion on classes arachnida and insect • stating and describing the characteristics of classes arachnida and insect • observing, drawing and labeling parts of various types of arachnida and insecta	• preserved specimen of class arachnida and insecta • wall charts showing diagrams of common members of class arachnida and insecta • local environment • hand lenses	• Comprehensive secondary Biology students Bk. 3 page • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 14-16 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 25,30	
5	1	EVALUATION	Continuous assessment test	By the end of the lesson, the learner should be able to • Answer all questions on the subtopics covered previously	• Learner answers questions • Teacher supervises learners as they write down their examination	• Question papers • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page • Teachers bk. 3 pages • KLB secondary Biology Students book 3 Page 30 • KLB teachers book 3 pages 1-8	

							• Principles of biology vol. 2 pages	
	2	CLASSIFICATION 2	Classes chilopoda and diplopoda	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Classes chilopoda and diplopoda • List down the members of class chilopoda and diplopoda	• Describing the general characteristics of Classes chilopoda and diplopoda • Observing, drawing and labeling of diplopods and chilopods • Differentiating between chilopoda and diplopoda classes	• Preserved specimen of chilopods and diplopods • Wall charts showing diagrams of centipedes and millipedes • Local environment	• Comprehensive secondary Biology students Bk. 3 page 15 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 14 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 31	
	3	CLASSIFICATION 2	Phylum chordata	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Phylum chordata	• Describing the general characteristics of Classes Phylum chordate • listing down the members of Phylum chordata	• Preserved specimen of Phylum chordata • local environment	• Comprehensive secondary Biology students Bk. 3 page 16-17 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 16-17 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 32	
	4-5	CLASSIFICATION 2	Classes Pisces and amphibia	By the end of the lesson, the learner should be able to: • describe the general characteristics of Pisces and amphibia	• describing the general characteristics of Classes Pisces and amphibian • observing, drawing and labeling different types of fish • differentiating between bony and cartilaginous fish	• Wall charts of fish • Live specimen amphibia • Local environment	• Comprehensive secondary Biology students Bk. 3 page 17-19 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page • KLB teachers book 3 pages • Principles of biology vol. 2 pages 32-33	

6	1	CLASSIFICATION 2	Classes amphibian and reptilia	By the end of the lesson, the learner should be able to: • describe the general characteristics of reptilia	• Describing the general characteristics of reptilia • Observing, drawing and labeling different types of amphibia and reptilia	• Photographs/diagrams of amphibia and reptilia • Preserved specimen reptilia	• Comprehensive secondary Biology students Bk. 3 page 18-19 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 18-19 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 33-34	
	2	CLASSIFICATION 2	Class aves	By the end of the lesson, the learner should be able to: • describe the general characteristics of Class aves	• Describing and stating the general characteristics of Class aves • Observing, drawing and labeling different parts of aves	• Photographs/diagrams of birds	• Comprehensive secondary Biology students Bk. 3 page 19-20 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 19-20 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 34-35	
	3	CLASSIFICATION 2	Class Mammalia	By the end of the lesson, the learner should be able to: • Describe the general characteristics of Class Mammalia • Identify different types of members of Class Mammalia	• Describing and stating the general characteristics of Class Mammalia • Asking and answering questions	• Photographs/diagrams of different mammals	• Comprehensive secondary Biology students Bk. 3 page 20-21 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 21 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 35-36	
	4-5	CLASSIFICATION 2	dichotomous key	By the end of the lesson, the learner should be able to: • Construct a simple dichotomous to	• Constructing a simple dichotomous key	• Common plant and animal species	• Comprehensive secondary Biology students Bk. 3 page 21-22	

				identify given organisms	using common organisms		• Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 22-26 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 37-41	
7	1	CLASSIFICATION 2	dichotomous key	By the end of the lesson, the learner should be able to: • Use an already constructed dichotomous key to identify given organisms	• Using a dichotomous key to identify arthropods	• Chart showing a constructed dichotomous key	• Comprehensive secondary Biology students Bk. 3 page 21-22 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 27-28 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 37-41	
	2	CLASSIFICATION 2	dichotomous key	By the end of the lesson, the learner should be able to: • Use an already constructed dichotomous key to identify given organisms	• Using a dichotomous key to identify plants	• Chart showing a constructed dichotomous key	• Comprehensive secondary Biology students Bk. 3 page 21-22 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 29 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 37-41	
	3	CLASSIFICATION 2	Dichotomous key	By the end of the lesson, the learner should be able to: • Use an already constructed dichotomous key to identify given organisms	• Using a dichotomous key to identify phylum chordata	• Chart showing a constructed dichotomous key	• Comprehensive secondary Biology students Bk. 3 page 21-22 • Teachers bk. 3 pages 1-8	

							• KLB secondary Biology Students book 3 Page • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages	
	1	EVALUATION & REVISION OF THE TOPICS	Continuous assessment test	By the end of the lesson, the learner should be able to: • answer all questions on the topic covered • draw and label organisms correctly	• Learner answers questions • Teacher supervises learners as they write down their examination	• Question papers • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page25-26 • Teachers bk. 3 pages 1-8 • KLB secondary Biology Students book 3 Page 30 • KLB teachers book 3 pages 12-27 • Principles of biology vol. 2 pages 42-47	
8	1	ECOLOGY	Introduction to ecology	By the end of the lesson, the learner should be able to: • Define the term ecology and identify terms used in ecology	• Defining the terms used in ecology	• Wall chart showing terms used in ecology and their definitions and their Local environment	• Comprehensive secondary Biology students Bk. 3 page 27-28 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 33-34 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 48	
	2	ECOLOGY	Introduction to ecology	By the end of the lesson, the learner should be able to: • Define the term ecology and identify terms used in ecology	• Defining the terms used in ecology	• Wall chart showing terms used in ecology and their definitions and their Local environment	• Comprehensive secondary Biology students Bk. 3 page 27-28 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 33-34	

							• KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 48	
	3	ECOLOGY	Factors affecting the distribution of organisms in an ecosystem Light	By the end of the lesson, the learner should be able to: • Identify the types of ecosystems • State and explain how light determines distribution of organisms in an ecosystem	• Discussing how light determines distribution of organisms in an ecosystem	• Instruments for measuring light or their diagrams • Local environment	• Comprehensive secondary Biology students Bk. 3 page 29 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 34 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 50	
	4-5	ECOLOGY	Factors affecting the distribution of organisms in an ecosystem temperature	By the end of the lesson, the learner should be able to: • Identify and describe how temperature determines distribution of organisms in an ecosystem	• Discussing on the role of temperature in the distribution of organisms in an ecosystem • Drawing and labeling parts of a thermometer	• Instruments for measuring temperature or their diagrams • Local environment	• Comprehensive secondary Biology students Bk. 3 page • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 34 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 50	
9	1	ECOLOGY	Factors affecting the distribution of organisms in an ecosystem Rainfall and humidity	By the end of the lesson, the learner should be able to: • Identify and describe how Rainfall and humidity determines distribution of organisms in an ecosystem	• Discussing on the role of Rainfall and humidity in the distribution of organisms in an ecosystem • Stating and describing how Rainfall and humidity determines distribution of organisms	• Instruments for measuring Rainfall and humidity or their diagrams/photographs • Local environment	• Comprehensive secondary Biology students Bk. 3 page 31 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 34-35 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 51	

					• Drawing of instruments e.g. rain gauge			
	2	ECOLOGY	Factors affecting the distribution of organisms in an ecosystem Wind and atmospheric pressure	By the end of the lesson, the learner should be able to: • describe how Wind and atmospheric pressure determines distribution of organisms in an ecosystem	• describing how Wind and atmospheric affects the distribution of organisms in an ecosystem • Drawing and labeling of instruments used in measuring wind direction & strength	• Instruments for measuring strength of wind, direction of wind and atmospheric pressure • Local environment	• Comprehensive secondary Biology students Bk. 3 page 29-30 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 34-35 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 51-52	
	3	EVALUATIO N	Continuous assessment test	By the end of the lesson, the learner should be able to: • Write down correct answers to questions asked in the test	• Learner recalls and writes down answers questions asked • Teacher supervises learners as they write down their examination	• Question papers • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page 1-30 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 70 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 94	
	4-5	ECOLOGY	Factors affecting the distribution of organisms in an ecosystem salinity	By the end of the lesson, the learner should be able to: • describe how salinity affects the distribution of organisms in aquatic ecosystems	• describing how salinity affects the distribution of organisms in aquatic ecosystems • discussion on the role of salinity in distribution of organisms and methods of measuring salinity	• diagrams of aquatic profile of lakes/oceans • Local environment	• Comprehensive secondary Biology students Bk. 3 page 31 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 35-36 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 51	

10	1	ECOLOGY	Factors in an ecosystem and how they affect distribution of organisms Waves, curves and Tides	By the end of the lesson, the learner should be able to: • describe how waves, currents and tides affects the distribution of organisms in aquatic ecosystem	• describing how waves, currents and tides affects the distribution of organisms in aquatic ecosystems	• diagrams of aquatic profile of lakes/oceans • Local environment	• Comprehensive secondary Biology students Bk. 3 page 31-32 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 36 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 49- 51	
	2	ECOLOGY	Factors in an ecosystem and how they affect distribution of organisms Edaphic factors	By the end of the lesson, the learner should be able to: • Describe how Edaphic factors affects the distribution of organisms in an ecosystem	• Describing how Edaphic factors affects the distribution of organisms in an ecosystem • Discussion on the role of edaphic factors in distribution of organisms in an ecosystem	• Soil samples of different types from different places • petri dishes • Local environment	• Comprehensive secondary Biology students Bk. 3 page 32 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 36 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 52	
	3	ECOLOGY	Factors in an ecosystem and how they affect distribution of organisms (practical lesson)	By the end of the lesson, the learner should be able to: • Measure certain factors in samples of different soils	• Measuring the PH and soil water content in sandy, clay and loamy soils	• Samples of sandy, clay and loamy soils • Weighing balance • Source of heat • Universal indicator • Funnel/filter papers • Cotton wool • Measuring cylinders	• Comprehensive secondary Biology students Bk. 3 page 32 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 36 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 92-93	
	4-5	ECOLOGY	Factors in an ecosystem and how they affect	By the end of the lesson, the learner should be able to: • Describe how Geological factors	• Describing how Geological factors affect the distribution of	• Local environment • Maps or photographs of	• Comprehensive secondary Biology students Bk. 3 page 32-33	

			distribution of organisms Geological factors	affect the distribution of organisms in an ecosystem	organisms in an ecosystem • Discussion on the role of geological factors in the distribution of organisms in an ecosystem	various landscapes	• Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page • KLB teachers book 3 pages • Principles of biology vol. 2 pages 54	
11	1	ECOLOGY	Abiotic factors in an ecosystem	By the end of the lesson, the learner should be able to: • Describe how Abiotic factors affect the distribution of organisms in an ecosystem	• Describing how other Abiotic factors affect the distribution of organisms in an ecosystem • Discussion on the role of pollutants, oxygen concentration in the distribution of organisms in an ecosystem	• Local environment • Photographs of polluted environments	• Comprehensive secondary Biology students Bk. 3 page 33 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page • KLB teachers book 3 pages • Principles of biology vol. 2 pages 52-54	
	2	ECOLOGY	Biotic factors in an ecosystem Competition	By the end of the lesson, the learner should be able to: • Describe how competition affects the distribution of organisms in an ecosystem	• Describing how competition affects the distribution of organisms in an ecosystem • Discussion on how competition affects the distribution of organisms in an ecosystem	• Local environment • Graphs showing relation of different organisms in an ecosystem using a factor e.g. food	• Comprehensive secondary Biology students Bk. 3 page 40 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 37-38 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 56-58	
	3	ECOLOGY	Biotic factors in an ecosystem Predation and Symbiosis	By the end of the lesson, the learner should be able to: • Describe how Predation and Symbiosis affects the distribution of organisms in an ecosystem	• Describing how Predation and Symbiosis affects the distribution of organisms in an ecosystem • Discussion on the role of Predation and Symbiosis in	• Leguminous root • Local environment	• Comprehensive secondary Biology students Bk. 3 page 40-41 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 39-40	

					the distribution of organisms in an ecosystem • Drawing and labeling parts of a leguminous root		• KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 57-59	
	4-5	ECOLOGY	Parasitism and saprophytism	By the end of the lesson, the learner should be able to: • Differentiate between Parasitism and saprophytism • Describe how Parasitism and saprophytism influence the distribution of organisms in an ecosystem e.g. Tick and cattle	• Differentiating between Parasitism and saprophytism • Describing how Parasitism and saprophytism influence the distribution of organisms in an ecosystem e.g. Tick and cattle • Discussion on Parasitism and saprophytism and their role in distribution of organisms in an ecosystem	• Live/preserved specimen of common parasites • Diagrams or photographs of common Parasitism and saprophytism • Local environment	• Comprehensive secondary Biology students Bk. 3 page 41 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 39-40 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 58-59	
12	1	ECOLOGY	Recycling of matter and energy flow in an ecosystem	By the end of the lesson, the learner should be able to: • Describe the interaction between organisms in an ecosystem	• Describing the interaction between organisms in an ecosystem • Discussion on the role of producers, consumers and decomposers in an ecosystem • Construction of a pyramid of biomass and numbers	• Chart showing pyramid of biomass and numbers • Local environment	• Comprehensive secondary Biology students Bk. 3 page 37-39 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 44-45 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 69-71	
	2	ECOLOGY	Nitrogen cycle & carbon cycle	By the end of the lesson, the learner should be able to: • Describe the role of decomposers in	• Describing the Nitrogen cycle • Discussion on the role of	• Wall chart on Nitrogen cycle	• Comprehensive secondary Biology students Bk. 3 page 41-42	

				Nitrogen cycle & carbon cycle	decomposers in Nitrogen cycle • Construction of the Nitrogen cycle		• Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 41-42 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 71-73	
	3	ECOLOGY	Recycling of matter & energy flow in an ecosystem	By the end of the lesson, the learner should be able to: • Define the terms food chain and food web • Construct food chains and food webs	• Defining the terms food chain and food web • Discussion on food chains and food webs • Constructing food chains and food webs	• Examples of food chains and food webs	• Comprehensive secondary Biology students Bk. 3 page 37-38 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 42-44 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 74	
	4-5	ECOLOGY	Recycling of matter & energy flow in an ecosystem	By the end of the lesson, the learner should be able to: • Describe energy flow in a local ecosystem and Construct food chains and food webs	• Studying energy flow in a local ecosystem • Constructing food chains and food webs		• Comprehensive secondary Biology students Bk. 3 page 37-38, 39-40 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 42-44 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 69-70	
13	**REVISION AND END OF TERM EXAMINATIONS**							

BIOLOGY FORM 3 SCHEMES OF WORK – TERM 2

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	1	ECOLOGY	population	By the end of the lesson, the learner should be able to: • Define population • List down the characteristics of population	• Defining population • Listing characteristics of population	• Photographs of population • Data on population of some organisms shown e.g. in a graph • Local environment	• Comprehensive secondary Biology students Bk. 3 page 33-34 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 46 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 75-81	
	2	ECOLOGY	Population estimation	By the end of the lesson, the learner should be able to: • Explain the use of quadrants and transects as methods of Population estimation	• Describing how quadrants and transects as methods of Population estimation • Discussion on the use of quadrants and transects as methods of Population estimation	• quadrants • wall charts with transects • 2 ropes with IM interval marks	• Comprehensive secondary Biology students Bk. 3 page 35-36 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 46-48 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 82-84	
	3	ECOLOGY	Population estimation	By the end of the lesson, the learner should be able to: • Explain the capture –recapture method of population estimation	• Describing capture recapture method of population estimation • Using capture – recapture method by estimating the total number of beads in a beaker	• Beads of two colours • Local environment	• Comprehensive secondary Biology students Bk. 3 page 36-37 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 49 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 84	

	4-5	ECOLOGY	Population estimation (practical lesson)	By the end of the lesson, the learner should be able to: • Use quadrant method to estimate population of named organisms within the compound	• Identifying, estimating and recording organisms in the school compound using quadrant method	• School compound • Quadrant • herbs	• Comprehensive secondary Biology students Bk. 3 page 36-37 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 47 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 82-83	
2	1	ECOLOGY	Population estimation	By the end of the lesson, the learner should be able to: • Describe total count, aerial count and aerial photography and other methods of population estimation	• Describing total count, aerial count and aerial photography and other methods of population estimation • Discussion on these methods of population estimation.	• Photographs of populations • Local environment	• Comprehensive secondary Biology students Bk. 3 page 35 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 46 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 81-82	
	2	ECOLOGY	Adaptation of organisms to their habitats	By the end of the lesson, the learner should be able to: • Relate to the adaptations of xerophytes to their habitats	• Discuss the adaptations of xerophytes to their habitats	• Photographs and diagrams of xerophytes • Local environment	• Comprehensive secondary Biology students Bk. 3 page 42-44 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 50-51 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 60-62	
	3	ECOLOGY	Adaptation of organisms to their habitats	By the end of the lesson, the learner should be able to: • Relate to the adaptations of	• Discuss the adaptations of mesophytes to their habitats	• Photographs and diagrams of mesophytes • Local environment	• Comprehensive secondary Biology students Bk. 3 page 44-45	

				mesophytes to their habitats			• Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 51 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 62-63	
	4-5	ECOLOGY	Adaptation of organisms to their habitats	By the end of the lesson, the learner should be able to: • Relate to the adaptations of hydrophytes to their habitats • Observe, draw and label parts of named hydrophytes, mesophytes and xerophyte plants	• Discuss the adaptations of hydrophytes to their habitats • Observing, drawing and labeling structures of xerophytes, mesophytes and hydrophytes	• Photographs and diagrams of mesophytes e.g. black jack • Hydrophytes e.g. papyrus • Xerophytes e.g. cactus • Hand lens • blade • Local environment	• Comprehensive secondary Biology students Bk. 3 page 42-46 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 52-53 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 63-64	
3	1	ECOLOGY	Adaptation of organisms to their habitats	By the end of the lesson, the learner should be able to: • Relate to the adaptations of halophytes to their habitats	• Discussion on the adaptations of halophytes to their habitats • Describing the adaptations of halophytes to their habitats	• Photographs and diagrams of halophytes • Local environment • Wall charts on halophytes	• Comprehensive secondary Biology students Bk. 3 page 46-47 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 53-54 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 65	
	2	ECOLOGY	Environmental pollution	By the end of the lesson, the learner should be able to: • Explain pollution and give examples of pollutants	• Defining pollution and identifying various pollutants • Discussion on pollutants within and around the school compound	• Photographs and diagrams of polluted areas • Local environment	• Comprehensive secondary Biology students Bk. 3 page 46-47 • Teachers bk. 3 pages 8-24	

							• KLB secondary Biology Students book 3 Page 55-56 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 100-101	
	3	ECOLOGY	Air pollution	By the end of the lesson, the learner should be able to: • Describe the various air pollutants	• Identify various air pollutants • Describing various air pollutants	• Photographs and diagrams of air pollution • Local environment	• Comprehensive secondary Biology students Bk. 3 page 47 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 56 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 100-104	
	4-5	ECOLOGY	Air pollution	By the end of the lesson, the learner should be able to: • Discuss the effects of air pollution on the environment • Suggest methods of controlling air pollution	• Discussing the effects of air pollution on human health and animals • Suggesting methods of controlling air pollution	• Photographs and diagrams of areas polluted by air • Local environment	• Comprehensive secondary Biology students Bk. 3 page 47-50 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 56-59 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 101-104	
4	1	ECOLOGY	Land/ soil pollution	By the end of the lesson, the learner should be able to: • Describe various causes of Land/ soil pollution	• Identification and description of various causes of Land/ soil pollution	• Photographs and diagrams of polluted land • Local environment	• Comprehensive secondary Biology students Bk. 3 page 47-50 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 62-64 • KLB teachers book 3 pages 28-56	

							• Principles of biology vol. 2 pages 104-105	
	2	ECOLOGY	Land/ soil pollution	By the end of the lesson, the learner should be able to: • Discuss the effects of Land/ soil pollution and human health in rural and urban centers • Suggest methods of controlling Land/ soil pollution	• Discussion on the effects of Land/ soil pollution on human and animal health • Suggesting methods of controlling Land/ soil pollution	• Photographs and diagrams of polluted land • Local environment	• Comprehensive secondary Biology students Bk. 3 page 47-50 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 62-64 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 104-105	
	3	ECOLOGY	Water pollution	By the end of the lesson, the learner should be able to: • Describe the causes of Water pollution	• Identifying and describing the causes of Water pollution	• Photographs and diagrams of polluted water • Local environment	• Comprehensive secondary Biology students Bk. 3 page 50-52 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 60-62 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 105-108	
	4-5	ECOLOGY	environmental pollution	By the end of the lesson, the learner should be able to: • Identify other causes of environmental pollution in rural and urban centers	• Identifying and describing the causes of environmental pollution e.g. noise, radioactive pollutions	• Photographs and diagrams of polluted environment • Local environment	• Comprehensive secondary Biology students Bk. 3 page 47-53 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 64 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 108-112	
5	1	EECOLOGY	Continuous assessment test	By the end of the lesson, the learner should be able to:	• Learner recalls and writes down	• Question papers • Marking scheme	• Comprehensive secondary Biology	

				• Write down correct answers to questions asked in the test	answers questions asked • Teacher supervises learners as they write down their examination		students Bk. 3 page 33-52 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page • KLB teachers book 3 pages • Principles of biology vol. 2 pages 100-110	
	2	ECOLOGY	water pollution	By the end of the lesson, the learner should be able to: • Discuss the effects of water pollution on human health in rural and urban centers and other organisms • Suggest methods of controlling water pollution	• Discussion on the effects of water pollution on human health in rural and urban centers and other organisms • Suggesting methods of controlling water pollution	• Photographs and diagrams of polluted areas • Local environment	• Comprehensive secondary Biology students Bk. 3 page 50-52 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 60-62 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 105-108	
	3	ECOLOGY	Human diseases	By the end of the lesson, the learner should be able to: • Identify symptoms of cholera and typhoid fever • State methods of transmission • Suggest control measures	• Discussion on the symptoms, methods of transmission and control of cholera and typhoid fever	• resource person e.g. school nurse • Journals, periodicals and newspapers from library having information about cholera and typhoid fever	• Comprehensive secondary Biology students Bk. 3 page 53-54 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 64-66 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 121-122	
	4-5	ECOLOGY	protozoan diseases	By the end of the lesson, the learner should be able to: • Identify the causes, symptoms and methods of	• Discussion on the causes, symptoms and methods of transmission and control of malaria	• resource person e.g. school nurse • Journals, periodicals and newspapers	• Comprehensive secondary Biology students Bk. 3 page 54-55 • Teachers bk. 3 pages 8-24	

				transmission and control of malaria		from library having information about malaria	• KLB secondary Biology Students book 3 Page 66-70 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 129-130	
6	1	ECOLOGY	protozoan diseases	By the end of the lesson, the learner should be able to: • Identify the causes, symptoms and methods of transmission of amoebic dysentery • Suggest control methods of amoebic dysentery	• Discussion on the causes, symptoms and methods of transmission and control of amoebic dysentery	• resource person e.g. school nurse • Wall charts on life cycle of entomoeba hystolitica	• Comprehensive secondary Biology students Bk. 3 page 55 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 66-67 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 131	
	2	ECOLOGY	Diseases caused by parasitic worms	By the end of the lesson, the learner should be able to: • Identify the causes, symptoms and methods of transmission of ascariosis	• Discussion on the causes, symptoms and methods of transmission of ascariosis	• Resource person e.g. school nurse • Wall charts on life cycle of ascaris tumbricoides • Journals, periodicals and newspapers having information about ascaris tumbricoides	• Comprehensive secondary Biology students Bk. 3 page 56 • Teachers bk. 3 pages 8-24 • KLB secondary Biology Students book 3 Page 67-68 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 124-128	
	3	ECOLOGY	Diseases caused by parasitic worms	By the end of the lesson, the learner should be able to: • Identify the causes, symptoms and methods of transmission and control of schistomiasis	• Discussion on the causes, symptoms and methods of transmission and control of schistomiasis	• Recourse person e.g. school nurse • Wall charts on life cycle of schistomiasis	• Comprehensive secondary Biology students Bk. 3 page 55-56 • Teachers bk. 3 pages 8-24	

							• KLB secondary Biology Students book 3 Page 69-70 • KLB teachers book 3 pages 28-56 • Principles of biology vol. 2 pages 124-128	
	4-5	REPRODUCTION	Introduction to reproduction	By the end of the lesson, the learner should be able to: • Define reproduction and state its importance • Differentiate between asexual and sexual reproduction	• Defining reproduction • Differentiation between asexual and sexual reproduction • Stating the importance of reproduction	• Recourse person e.g. school nurse • Wall charts on significance of reproduction	• Comprehensive secondary Biology students Bk. 3 page 64,103 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 78 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 141	
7	1	REPRODUCTION	Concepts of reproduction	By the end of the lesson, the learner should be able to: • Describe the appearance and location of chromosomes	• Describing the appearance and location of chromosomes • Modeling chromosomes using Plasticine • Drawing and labeling chromosomes	• Chart showing chromosomes • Plasticine of different colours • Manila paper	• Comprehensive secondary Biology students Bk. 3 page 64-65 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 79 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 141	
	2	REPRODUCTION	mitosis	By the end of the lesson, the learner should be able to: • Define mitosis • Describe chromosomic movement during mitosis	• Defining mitosis and description of stages of mitosis • Description of chromosomic movement in mitosis	• Wall Chart showing mitosis • Plasticine of different colours • Use of mitosis pictures	• Comprehensive secondary Biology students Bk. 3 page 65-67 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 79-82	

							• KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 142-144	
	3	REPRODUCTION	mitosis	By the end of the lesson, the learner should be able to: • Describe e the movement of chromosomes in mitosis • Identify stages of mitosis	• Identifying stages of mitosis • Describing chromosomic movement in mitosis • Drawing the stages of mitosis	• Wall Chart showing mitosis • Plasticine of different colours • Use of mitosis pictures • photomicrographs	• Comprehensive secondary Biology students Bk. 3 page 65-67 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 79-82 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 142-144	
	4-5	REPRODUCTION	mitosis	By the end of the lesson, the learner should be able to: • Identify and describe stages of mitosis	• Identifying stages of mitosis • Describing the stages of mitosis • Drawing the stages of mitosis	• Wall Chart showing mitosis • Plasticine of different colours • Use of mitosis pictures • photomicrographs	• Comprehensive secondary Biology students Bk. 3 page 65-67 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 79-82 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 142-144	
8	1	REPRODUCTION	Significance of mitosis	By the end of the lesson, the learner should be able to: • State the significance of mitosis in reproduction	• Stating the significance of mitosis in reproduction • Discussion on the significance of mitosis	• Wall Chart showing stages of mitosis	• Comprehensive secondary Biology students Bk. 3 page 66-67 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 82 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 142-143	

	2	EVALUATION	Continuous assessment test	By the end of the lesson, the learner should be able to: • Write down correct answers to questions asked in the test	• Learner recalls and writes down answers questions asked • Teacher supervises learners as they write down their examination	• Question papers • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page 64-112 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 128-131 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 180-185	
	3	REPRODUCTION	meiosis	By the end of the lesson, the learner should be able to: • Define meiosis • State the stages of meiosis • Describe the chromosome movement during meiosis	• Defining meiosis • Describing the stages of meiosis • Describing the chromosome movement during meiosis	• Wall Chart showing stages of meiosis • Plasticine • photomicrographics	• Comprehensive secondary Biology students Bk. 3 page 67-70 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 82-85 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 144-145	
	4-5	REPRODUCTION	meiosis	By the end of the lesson, the learner should be able to: • Observe the stages of meiosis • Describe the movement of chromosomes during meiosis	Observing, identifying and drawing stages of meiosis in anther cells under a microscope	• Mature flower of hibiscus plant • microscopes	• Comprehensive secondary Biology students Bk. 3 page 104-105 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 86 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 144-145	
9	1	REPRODUCTION	Significance of meiosis in reproduction	By the end of the lesson, the learner should be able to: • State the significance of	• Stating the significance of meiosis in reproduction	• Charts showing stages of meiosis	• Comprehensive secondary Biology students Bk. 3 page 70	

				meiosis in reproduction	• Discussion on the significance of meiosis in reproduction	• photomicrographics	• Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 86 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 145	
	2	REPRODUCTION	Difference between mitosis and meiosis	By the end of the lesson, the learner should be able to: • Differentiate between mitosis and meiosis	• Discussion on the difference between mitosis and meiosis	• Charts on meiosis and mitosis	• Comprehensive secondary Biology students Bk. 3 page 70 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 87 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 145-146	
	3	REPRODUCTION	Asexual reproduction Binary fission	By the end of the lesson, the learner should be able to: • State and describe the importance of Binary fission	• Describing the importance of Binary fission • Drawing on stages of Binary fission in amoeba	• Protozoan infusion • Microscope • Hand lenses	• Comprehensive secondary Biology students Bk. 3 page 70-72 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 87-88 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 146	
	4-5	REPRODUCTION	Binary fission	By the end of the lesson, the learner should be able to: • Observe spore formation in bread mould (mucor) and binary fission in paramecium	• Description of binary fission and sporulation in reproduction • Drawing and labeling bread mould showing pore-producing structures	• Protozoan infusion • Light Microscope • Hand lenses • Bread mould (mucor) growing on bread	• Comprehensive secondary Biology students Bk. 3 page 70-72 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 87-88	

							• KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 146-147	
10	1	REPRODUCTION	Asexual reproduction Budding	By the end of the lesson, the learner should be able to: • State and describing the importance of budding in reproduction • Observing drawing and budding cells of yeast	• Identifying, stating and describing the importance of budding in reproduction • Observing, drawing and labeling budding cells of yeast	• Yeast fermentation (prepared an hour to the lesson) • Microscope, slides • Cover slips Methylene blue stain	• Comprehensive secondary Biology students Bk. 3 page 72 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 89 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 146-147	
	2	REPRODUCTION	Asexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe the external structure of a typical flower	• Identifying the external floral parts • Observing, drawing and describing corolla and calyx of a flower	• Big mature flowers e.g. hibiscus • Hand lenses	• Comprehensive secondary Biology students Bk. 3 page 73 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 90-91 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 152-155	
	3	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe the internal structure of a typical flower	• Identifying the internal floral parts • Observing, identifying and describing stamens and carpels of a flower	• Big mature flowers e.g. hibiscus & Nandi flame • Hand lenses • blade	• Comprehensive secondary Biology students Bk. 3 page 73 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 91 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 154-156	
	4-5	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to:	• Observing, Identifying, and recording other	• A variety of mature wind and insect	• Comprehensive secondary Biology	

				• Observe, describe and draw different types of pollen grains • Describe the structure of ovules • Describe other characteristics of flowers	characteristics of flowers • Comparing insect pollinated and wind pollinated flowers	pollinated flowers • Light microscope • Microscope slides • Cover slips	students Bk. 3 page 79,105 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 91-92 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 157-158	
11	1	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe and compare adaptations of wind and insect pollinated flowers	• Observing, Identifying, and recording other characteristics of flowers • Comparing insect pollinated and wind pollinated flowers	• A variety of mature flowers still attached to their stem • Local environment	• Comprehensive secondary Biology students Bk. 3 page 74-75 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 94-95 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 159	
	2	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe the features and mechanisms that hinder self-pollination and self-fertilization	• Describing pollination • Stating the types of pollination • Comparing adaptations of wind pollinated and insect pollinated flowers	• Insect and wind pollinated flowers • Local environment	• Comprehensive secondary Biology students Bk. 3 page 74-78 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 94-95 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 159	
	3	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe the process of fertilization in flowering plants	• Describing double fertilization in flowering plants • Describing features and mechanisms	• Variety of mature flowers • Local environment	• Comprehensive secondary Biology students Bk. 3 page 78 • Teachers bk. 3 pages 25-45	

					hindering self-pollination and self-fertilization	• Wall charts of various types of flowers	• KLB secondary Biology Students book 3 Page 96-97 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 159-160	
	4-5	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe and explain how embryo and seeds are formed in flowering plants	• Describing and explaining the formation of embryo and seed in flowering plants	• Wall charts showing embryo formation in flowering plants • Bean seeds	• Comprehensive secondary Biology students Bk. 3 page 79-80 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 97-98 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 161-162	
12	1	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe how fruits are formed in flowering plants	• Describing and explaining fruit formation in flowering plants	• Specimen of fruits	• Comprehensive secondary Biology students Bk. 3 page 80-82, 107 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 97-100 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 161-165	
	2	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Differentiate between a fruit and a seed	• Differentiating between fruits and seeds	• Fruits • seeds	• Comprehensive secondary Biology students Bk. 3 page 82, 107 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 97-100	

							• KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 161-165	
	3	REPRODUCTION	Sexual reproduction in flowering plants	By the end of the lesson, the learner should be able to: • Describe and explain how different seeds and fruits are dispersed	• Describing and explaining methods of fruit and seed dispersal	• Different types of fruits and seeds	• Comprehensive secondary Biology students Bk. 3 page 80-82 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 102-104 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 164-165	
	4-5	REPRODUCTION	Classifying fruits	By the end of the lesson, the learner should be able to: • Classifying various types of fruits and describe their placentation	• Description and examination of placentation of various fruits	• Handouts on types of fruits • Various types of fruits	• Comprehensive secondary Biology students Bk. 3 page 84-87 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 101-104 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 162-165	
13	**REVISION AND END OF TERM EXAMINATIONS**							

BIOLOGY FORM 3 SCHEMES OF WORK – TERM 3

WEEK	LESSON	TOPIC	SUB - TOPIC	OBJECTIVES	LEARNING/TEACHING ACTIVITIES	LEARNING/TEACHING RESOURCES	REFERENCES	REMARKS
1	1	REPRODUCTION	Sexual reproduction	By the end of the lesson, the learner should be able to: • Differentiate between internal and external fertilization • Describe external fertilization in amphibians	• Differentiating between internal and external fertilization • Discussion on external fertilization in amphibians	• Amphibian eggs in a jelly string • Hand lenses • Local environment	• Comprehensive secondary Biology students Bk. 3 page 91,107 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 104 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 165-166	
	2	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Relate the structure of mammalian male reproductive system to its functions	• Relating the structure of mammalian male reproductive system to its functions • Drawing and labeling the male reproductive system	• Wall chart on the male reproductive system • Dissected small mammal	• Comprehensive secondary Biology students Bk. 3 page 93,107 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 105-106 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 166-167	
	3	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Relate the structure of mammalian male reproductive organ and spermatozoa to its function	• Drawing and labeling the structure of the spermatozoa • Relating the spermatozoa to its function	• Wall chart on spermatozoa	• Comprehensive secondary Biology students Bk. 3 page 93-95 • Teachers bk. 3 pages 25-45	

							• KLB secondary Biology Students book 3 Page 112 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 169	
	4-5	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Relate the structure of mammalian female reproductive system to its function	• Discussion of the female reproductive system • Drawing and labeling and relating the female reproductive system to its functions	• Charts showing female reproductive system • Dissected small animals	• Comprehensive secondary Biology students Bk. 3 page 95,107 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 108-110 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 167-168	
2	1	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Relate the structure of mammalian ovum to its function	• Drawing and labeling and relating the structure of the ovum to its functions	• Wall Charts showing structure of the ovum	• Comprehensive secondary Biology students Bk. 3 page 92-93 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 108-109 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 169-170	
	2	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Describe internal fertilization in mammals	• Defining fertilization • Discussion on internal fertilization in mammals	• Wall Charts on fertilization process	• Comprehensive secondary Biology students Bk. 3 page 95 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 111-113 • KLB teachers book 3 pages 57-78	

							• Principles of biology vol. 2 pages 171-172	
	3	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Describe the fertilization process	• Describing the fertilization process • Drawing and labeling the fertilized ovum	• Wall Charts on the process of fertilization	• Comprehensive secondary Biology students Bk. 3 page 95 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 112-114 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 171-172	
	4-5	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Describe implantation and the role of the placenta in mammals	• Describing implantation • Explaining the role of the placenta in mammals	• Wall Charts showing the stages of implantation	• Comprehensive secondary Biology students Bk. 3 page 95 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 114-116 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 173-174	
3	1	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Define gestation in mammals • Identify different gestation periods in different mammals	• Defining gestation • Identifying different gestation periods in different mammals	• Wall Charts containing gestation periods of different mammals • Photograph of a foetus	• Comprehensive secondary Biology students Bk. 3 page 97 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 116-117 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 173-174	
	2	REPRODUCTION	Sexual reproduction in mammals	By the end of the lesson, the learner should be able to: • Describe birth and explain parental care	• Defining different terms used in birth • Explaining the parental care	• Wall Charts showing definitions of different terms in birth	• Comprehensive secondary Biology students Bk. 3 page 76 • Teachers bk. 3 pages 25-45	

					• Drawing and labeling the foetus	• Photographs on parturition	• KLB secondary Biology Students book 3 Page 117-119 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 177-179	
	3	REPRODUCTION	Role of hormones in human reproduction	By the end of the lesson, the learner should be able to: • Describe the role of hormones in reproduction of humans	• Discussion on role of hormones in reproduction of humans	• Wall Charts showing hormones involved with reproduction in human beings and their effects	• Comprehensive secondary Biology students Bk. 3 page 97-98 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 120-123 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 175-176	
	4-5	REPRODUCTION	Menstrual cycle	By the end of the lesson, the learner should be able to: • Describe the role of hormones in the menstrual cycle	• Discussion on role of hormones in the menstrual cycle	• Wall Charts on the menstrual cycle	• Comprehensive secondary Biology students Bk. 3 page 97-98 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 121-124 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 175-177	
4	1	REPRODUCTION	Sexually transmitted diseases/infections	By the end of the lesson, the learner should be able to: • Identify symptoms and explain the methods of transmission and prevention of gonorrhea and herpes simplex	• Discussion on symptoms, methods of transmission and prevention of gonorrhea and herpes simplex	• Photographs of body parts affected by STI's • Resource persons e.g. school nurse	• Comprehensive secondary Biology students Bk. 3 page 99-101 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 123-125	

							• KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179	
	2	REPRODUCTION	Sexually transmitted diseases	By the end of the lesson, the learner should be able to: • Identify symptoms and explain the methods of transmission and prevention of syphilis and trichomoniasis	• Discussion on symptoms and explain the methods of transmission and prevention of syphilis and trichomoniasis	• Photographs of body parts affected by STI's •	• Comprehensive secondary Biology students Bk. 3 page 99-100 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 124 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179	
	3	REPRODUCTION	Sexually transmitted infections	By the end of the lesson, the learner should be able to: • Identify symptoms and explain the methods of transmission and prevention of candidiasis and hepatitis	• Discussion on symptoms and explain the methods of transmission and prevention of candidiasis and hepatitis	• Photographs showing the symptoms of candidiasis and hepatitis	• Comprehensive secondary Biology students Bk. 3 page 100-102 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 124-125 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179	
	4-5	REPRODUCTION	Sexually transmitted diseases	By the end of the lesson, the learner should be able to: • Identify the causes and modes of transmission of HIV/AIDS and prevention of HIV and AIDS • Identify effects of HIV/AIDS in human economy	• Identifying the causes and modes of transmission of HIV/AIDS • Discussion on the causes and modes of transmission of HIV/AIDS	• Photographs of patients showing the signs & symptoms HIV and AIDS	• Comprehensive secondary Biology students Bk. 3 page 100-102 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 125-127 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179-180	

5	1	REPRODUCTION	Sexually transmitted diseases	By the end of the lesson, the learner should be able to: • Identify the symptoms of HIV/AIDS and stages of HIV and AIDS	• Discussion on symptoms of HIV/AIDS	• Photographs of patients showing the signs & symptoms HIV and AIDS	• Comprehensive secondary Biology students Bk. 3 page 102-103 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 125-126 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 180	
	2	REPRODUCTION	Sexually transmitted diseases	By the end of the lesson, the learner should be able to: • Explain ways of preventing and controlling the spread of HIV/AIDS	• Explaining ways of preventing and controlling the spread of HIV/AIDS • Discussion on methods of preventing and controlling the spread of HIV/AIDS	• Photographs of patients showing the signs & symptoms HIV and AIDS	• Comprehensive secondary Biology students Bk. 3 page 102-103 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 126 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179	
	3	EVALUATION	Continuous assessment test	By the end of the lesson, the learner should be able to: • Answer questions asked in the test	• Learner recalls and writes down answers to questions asked • Teacher supervises the learners as they write examinations	• Question papers • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page 64-103 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 128-131 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 180-184	
	4-5	REPRODUCTION	Sexually transmitted diseases	By the end of the lesson, the learner should be able to:	• Discussion on the social effects of HIV/AIDS	• Handouts on STDs	• Comprehensive secondary Biology students Bk. 3 page 103	

				• Discuss the social effects of HIV/AIDS			• Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 127 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 180	
6	1	REPRODUCTION	Asexual and sexual reproduction	By the end of the lesson, the learner should be able to: • Explain the advantages and disadvantages of sexual and asexual reproduction	• Explaining the advantages and disadvantages of sexual and asexual reproduction	• Charts showing advantages and disadvantages of sexual and asexual reproduction	• Comprehensive secondary Biology students Bk. 3 page 103 • Teachers bk. 3 pages 25-45 • KLB secondary Biology Students book 3 Page 127-128 • KLB teachers book 3 pages 57-78 • Principles of biology vol. 2 pages 179-180	
	2	GROWTH AND DEVELOPMENT	Concept of growth and development	By the end of the lesson, the learner should be able to: • Define the terms growth and development • Describe the sigmoid growth curve	• Defining the terms growth and development • Describing the sigmoid growth curve	• Charts showing sigmoid curve	• Comprehensive secondary Biology students Bk. 3 page 113 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 132 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 186	
	3	GROWTH AND DEVELOPMENT	Measurement of growth	By the end of the lesson, the learner should be able to: • Describe the phases of sigmoid curve • Describe the intermittent growth curve	• Describing the phases of sigmoid curve • Describing the intermittent growth curve	• Charts showing growth curves	• Comprehensive secondary Biology students Bk. 3 page 113 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 133-135 • KLB teachers book 3 pages 79-98	

							• Principles of biology vol. 2 pages 186-190	
	4-5	GROWTH AND DEVELOPMENT	Measurement of growth	By the end of the lesson, the learner should be able to: • Analyze data on growth rate • Draw growth curves	• Analyzing data on growth rate • Drawing growth curves	• Charts showing growth curves • Data on growth rate	• Comprehensive secondary Biology students Bk. 3 page 113,116-117,125 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 133-135 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 190	
7	1	GROWTH AND DEVELOPMENT	Growth and development in plants	By the end of the lesson, the learner should be able to: • Define seed dormancy • Identify factors affecting viability and dormancy of seeds	• Defining seed dormancy • Identifying factors affecting viability and dormancy of seeds	• Dry bean seeds • Dry maize seeds	• Comprehensive secondary Biology students Bk. 3 page 113-114 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 136-137 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 190,198	
	2	GROWTH AND DEVELOPMENT	Growth and development in plants	By the end of the lesson, the learner should be able to: • Identify factors affecting seed dormancy	• Identifying causes of seed dormancy •	• Dry bean seeds • Dry maize seeds	• Comprehensive secondary Biology students Bk. 3 page 113-114 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 136-137 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 190,198	

	3	GROWTH AND DEVELOPMENT	Growth and development in plants	By the end of the lesson, the learner should be able to: • Define seed germination • Differentiate between types of seed germination	• Observing, drawing and labeling types of seed germination in beans and maize • Differentiate between epigeal and hypogeal germination •	• Seedling of maize and beans at different stages of development	• Comprehensive secondary Biology students Bk. 3 page 114-145 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 137,141-142 • KLB teachers book 3 pages 79-98 • Principles of biology vol.2 pages 191	
	4-5	GROWTH AND DEVELOPMENT	Conditions necessary for germination	By the end of the lesson, the learner should be able to: • Identifying Conditions necessary for germination - oxygen	• setting up experiments to investigate conditions (oxygen) necessary for germination of seeds	• maize grains and beans seeds • cotton wool • flasks • pyrogallic acid • muslin bags • germination maize and bean seeds	• Comprehensive secondary Biology students Bk. 3 page 114-115 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 138 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 192-193	
8	1	GROWTH AND DEVELOPMENT	Conditions necessary for seed germination	By the end of the lesson, the learner should be able to: • Investigate the necessity of water and warmth	• Investigating the necessity of water and warmth	• Beans seeds • cotton wool • 4 petri dishes • Labels • Thermometer • refrigerator	• Comprehensive secondary Biology students Bk. 3 page 127-128 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 138,140 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 192	
	2	GROWTH AND DEVELOPMENT	Conditions necessary for seed germination	By the end of the lesson, the learner should be able to:	• Investigating the necessity of warmth	• Beans seeds • cotton wool • 4 petri dishes • Labels	• Comprehensive secondary Biology students Bk. 3 page 127-128	

				• Investigate the necessity of water and warmth		• Thermometer • refrigerator	• Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 138,140 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 192	
	3	EVALUATION	Continuous assessment test	By the end of the lesson, the learner should be able to: • Write down the correct answers to questions asked in the test	• Learner recalls and writes down answers to questions asked • Teacher supervises the learners as they write down the exams	• Question paper • Marking scheme	• Comprehensive secondary Biology students Bk. 3 page 132 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 134,138 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 203,206	
	4-5	GROWTH AND DEVELOPMENT	Growth in seedling	By the end of the lesson, the learner should be able to: • Describe the region of growth in seedlings • Identify the regions of growth	• Describing the region of growth in seedlings • Identifying the regions of growth	• Charts on shoot and root tips • Potted plants • Local environment	• Comprehensive secondary Biology students Bk. 3 page 131-132 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 143-144 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 193-194	
9	1	GROWTH AND DEVELOPMENT	Growth in seedling	By the end of the lesson, the learner should be able to: • Determine the regions of growth in seedlings • Measure the aspect of growth in a given seedling	• Determine the regions of growth in seedlings by measuring one parameter -height	• Growing seedling • Rulers • Local environment	• Comprehensive secondary Biology students Bk. 3 page 115-116 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 143-144	

							• KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 194, 196	
	2-3	GROWTH AND DEVELOPMENT	Primary and secondary growth	By the end of the lesson, the learner should be able to: • Describe growth in plants I.e. Primary and secondary growths • Investigate primary and secondary growth in a seedling	• Discussion on Primary and secondary growth in plants • Investigating primary and secondary growth in a seedling	• Bean seeds • Beakers • Cotton wool • Soft board • Piece of wire • Indian ink • Thread • Ruler • Petri dishes	• Comprehensive secondary Biology students Bk. 3 page 118-120 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 144-145 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 195-198	
	4-5	GROWTH AND DEVELOPMENT	Role of hormones in plants	By the end of the lesson, the learner should be able to: • Explain the role of hormones in regulation of growth and development in plants	• Discussion on the role common hormones in growth and development of plants • cytokinius • eltylene • Doscisic acid • Auxines and gibbrellins	• Chart on plant hormones and their effects	• Comprehensive secondary Biology students Bk. 3 page 121-122 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 146-147 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 195-199	
10	1	GROWTH AND DEVELOPMENT	Apical dominance	By the end of the lesson, the learner should be able to: • Explain Apical dominance in plants	• Discussion on Apical dominance in plants • Explaining Apical dominance in plants • Stating the application of Apical dominance in agriculture	• Photographs of plants • Specimen of plants that are pruned and others that are not	• Comprehensive secondary Biology students Bk. 3 page 122 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 147-148 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 198-199	

	2-3	GROWTH AND DEVELOPMENT	metamorphosis	By the end of the lesson, the learner should be able to: • Define metamorphosis • Distinguish between complete and incomplete metamorphosis • Describe complete metamorphosis in housefly and anopheles mosquito	• Defining metamorphosis • Distinguishing between complete and incomplete metamorphosis • Describing complete metamorphosis in housefly and anopheles mosquito	• Chart on the life cycles of housefly and anopheles mosquito	• Comprehensive secondary Biology students Bk. 3 page 118-120 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 148-149 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 199-203	
	4-5	GROWTH AND DEVELOPMENT	Incomplete metamorphosis	By the end of the lesson, the learner should be able to: • Describe incomplete metamorphosis in a cockroach	• Describing incomplete metamorphosis in a cockroach • Discussion on the life cycle of a cockroach • Drawing and labeling Incomplete metamorphic stages	• Chart on the life cycles of a cockroach • Preserved specimens showing stages of growth in a cockroach	• Comprehensive secondary Biology students Bk. 3 page 124-125 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 144-150 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 203	
11	1-2	GROWTH AND DEVELOPMENT	Role of growth hormones in insects	By the end of the lesson, the learner should be able to: • Describe and explain the Role of growth hormones in metamorphosis in insects	• Discussion of the Role of growth hormones in metamorphosis in insects	• Wall Charts on hormones involved in metamorphosis	• Comprehensive secondary Biology students Bk. 3 page 125-126 • Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 150-151 • KLB teachers book 3 pages 79-98 • Principles of biology vol 2 pages 203	
	3-5	GROWTH AND DEVELOPMENT	Metamorphosis (practical lesson)	By the end of the lesson, the learner should be able to:	• Observing, identifying, drawing and labeling various	• Eggs of various insects • Pupae and caterpillars	• Comprehensive secondary Biology students Bk. 3 page 129-130	

				• Observe metamorphosis in some insects	stages of insect development	• Specimen bottles • Transparent reagent bottles • Green vegetables • forceps	• Teachers bk. 3 pages 46-64 • KLB secondary Biology Students book 3 Page 150 • KLB teachers book 3 pages 79-98 • Principles of biology vol. 2 pages 200-203	
12	**REVISION AND END OF TERM EXAMINATIONS**							