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| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
| 1. i. Students to make appropriate use of Biological knowledge concepts and principle in   solving various problem in daily life.  ii. Student to perform practical activities in growth processes. | i. Students to acquire basic knowledge, skills, concepts, principles and mechanics of physiological process in plants and animals.  ii. Students to develop practical skills in studying growth processes. | | J  ANUAR  Y | | 3  4 | G  R  O  W  T  H | | 1.1  Concept of Growth. | 2 | * To lead students to   discuss the meaning and importance of growth. | * To discuss the   meaning and importance of growth in groups. | * Charts /   diagrams/pictures showing developmental stages of plants and animals.   * Real   objects. | * Fundamental of Biology form 4, students Book. J.M Mwaniki, G.G Geofrey Delah Education publishers Ltd. Biolo gy Forms 3 &4 students Book Tanzania Institute of Education Longman. | * Is the   student able to explain the concept of growth 2?.   * Can the   student investigate internal and external factors affecting growth in plants and animals? |  |
| * To guide students   through questions and answers to mention internal and external factors affecting growth in plants and animals.   * To make reflection of   the experiments and clarify main points. | * To carry out   experiment to investigate external and internal factors affecting growth. |
| 1.2  Mitosis and Growth | 6 | * To guide students in   groups to discuss the concept of mitosis.   * To make clarification   and conclusion after students presentation. | * To discuss the   concepts of mitosis and present their tasks. | * Charts/   models photographs diagrams slides showing stages of mitosis. |
| * Is the   students able to explain the concept of mitosis?   * Illustrate. |
| Biology  A frictional Approach 3rd Edition M.B.V Robert Thomas Nelson.. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | J  ANUAR  Y | |  | G  R  O  W  T  H | |  |  | * To guide students in   groups to discuss stages of mitosis.   * To reflect on the   drawings and make necessary clarification. | * To discuss in   groups and illustrate stages of mitosis diagrams and present their groups tasks plenary discussions. | * Microscope   slides of mitosis. | Biology Book. Ritter et al Nelson Canada | * Correctly   stages of mitosis?   * Explain   significance of mitosis on growth? |  |
|  | * To guide the students   in groups to discuss the significance the significance of mitosis in growth.   * To reflect on the   presentation and make clarifications. | * To present their group tasks in the plenary discussion. |  |
| F  E  B  RUAR  Y | | 1 | 1.3  Growth and Development stages in Human | 6 | * To guide students to   discuss the meaning of diffuse growth in groups.   * To culminate the   discussion by highlighting the meaning of diffuse growth. | * To discuss the   meaning of diffusion growth in groups and present their tasks.   * To use the   highlights to deduce the meaning of diffuse growth and distinctive characteristics. | Charts/diagrams /pictures showing development stages in man. |  | Is the students able to explain;   * Concept of   growth and development in human being?   * In the stages   of human post-natal growth and development? |
|  | * To lead the students in   groups to observe the displayed charts and discuss the stages ad changes during human growth and development.   * To clarify on the   psychological and physical and behavioural changes associated with each stage of human growth and development. | * To observe the   displayed charts and discuss the stages and changes during human growth and development. | * Photogra   phs charts showing stages of human growth from infancy to old age. |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | F  E  B  RUAR  Y | |  | G  R  O  W  T  H | |  |  | * To guide the students   in small groups to discuss physiological , physiological and behavioural changes associated with growth and development in childhood, adolescence, reproductive age, middle and old age.   * To culminate the   discussion and clarify the major points. | * To discuss   physiological and behavioural changes associated with growth and development in childhood, adolescence reproductive age, middle and old age. | * Charts on   nutrition shelter and other basic needs. |  | Is the students able to:- - explain physiological psychological and behavioural changes associated with growth and development? |  |
| * To lead students in   groups to discuss the factors affecting the rate of physical deterioration of human body and services required to meet the needs of individual at each stage.   * To clarify on the study   findings and emphasize that improve to reduce factors which affect the rate of physical deterioration of human body and services required to required to meet the needs of an individual at each stage will enhance the quality of human life. | * To discuss the factors affecting the rate of physical deterioration of human body and services required to meet the needs of individual at each stage. | * Photogra   phys/charts/diagrams showing human developmental stages.   * Charts /   pictures of varieties of food.   * A variety   of food substances. |  | Is the student able to outline the factors which affect the rate of physical deterioration of human body?  Services required to meet the needs of individual at each stage? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | F  E  B  RUAR  Y | | 2  & 3 |  | | Growth in flowering plants | 8 | * To guide the students to   explain the concepts of localized growth in plants.   * To lead the students in   groups to experiment and observe the germinating seeds and growing seasons of a plant for 5-7 days.   * To culminate by   highlighting the concept of localized in flowering plants. | * To explain the   concept of localized growth in plants.   * In groups to   experiment and observe the germinating seeds and growing seasons of a plant for 5-7 days. | * Germinate   seeds   * Ruler/tape   measure.   * Rope   /thread   * Indian ink * Cotton   wool   * Petri dishes * Hand lens * Young plant |  | Is the student able to explain the concept of seed of germination? |  |
| * To lead the students to   discuss the changes which occur during seed germination. | * To discuss the   changes which occur during seed germination. | * Extract/   texts on the changes which occur during seed germination. |  | Can the student outline changes which occur during seed germination?  How accurately can the student be able to investigate condition necessary for seed germination experimentally?  Explain the concept of localized growth and germination? |
| * To guide the students   to perform an experiment to investigate the conditions necessary for germination and discuss their findings.   * To guide the students   to deduce from the findings the conditions necessary for germination and present their task in a class discussion.   * To reflect on the   presentations and point out the conditions necessary for seed germination. | * To perform an   experiment to investigate the conditions necessary for germination and discuss their findings.   * To deduce from   the findings the conditions necessary for germination and present their task in a class discussion. | * Seeds * Water * Cotton wool * Petri   dishes   * Indian ink * Textual material. |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To lead students in   groups to carry out experiments on equal and hypogeal germination and report their experiment findings in plenary discussion.   * To reflect on students   responses and make necessary clarifications. | * To carry out experiments one pigeal and hypogeal germination and report on their experiment findings in plenary discussion. | * Diagrams   / drawings on seed germination. |  | * Carry out   practical activities to demonstrate on epigeal and hypogeal germination.   * Examine   growing  regions of  a root  and a shoot  experimentally? |  |
| * To lead students in   groups to perform experiments to examine the growing regions of a radical and a plumule (most and shoot spices)   * To lea students to take   measurement of the growing shoot and root periodically and discuss their findings. | * To take   measurement of the growing shoot and root periodically and discuss findings.   * To make reflection   of the experiment and clarify main points. | * Germating seeds. * Petri dishes * Water * Thread/rope * Ruler * Indian ink |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
| * Students to make appropriate use of biological knowledge concepts and principle in solving various problem in daily life. * Perform practical activities in genetic. * Demonstrate   appropriate use of genitio principle to improve animal, reproduction and resolve socio -cultural conflicts. | * Acquire   basic knowledge skills, concepts, principles and mechanism of physiological success in plants and animals.   * Develop   practical skills in studying genetics.   * Apply   knowledge skills and principles of genetics in improving plant and animal seeds as well as solving socio cultural conflicts (e.g. Marital conflicts and child rejection) | | F  E  B  R  U  A  R  Y | | 4 | 2.0  G E N E T I C S | | 2.1  Concept of Genetics | 2 | * To lead the students in   groups to discuss the meaning of genetics, variations and resemblance which exists among members of the same family.   * To give conclusion by   formulating definitions of interface and genetics. | * To discuss the meaning of genetics, variations and resemblance which exists among members of the same family. | * Photocopy   / pictures showing members of the same family. | * Fundamental of Biology Form 4 students Book J.M Mwaniki, G.G. Geoffrey Delah Educational Publishers Ltd. Biology forms 3&4 students Book TIE –Longman.. Biology – A fundamental approach 3rd edition   M.B V. Roberts Thomas Nelson. | * Is the   students able to explain the concept if genetics.   * How   correctly can the student state common terms used in genetics? |  |
| * To display all common   terms used in genetics.   * To lea students to   discuss on the meaning of each term.   * To make clarification   and conclusion on the common terms used in genetics. | * To discuss on the meaning of each terms. | Charts showing common terms used in genetics. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | | 2.2  Genetics materials. | 4 | * To lead students to   discuss on the meaning of genetic material.   * To make clarification   and conclusion.   * To lead students in   groups to observe models/pictures/photographs of DNA and RNA molecules and discuss its structure and composition.   * To lead students to   and label the structure of DNA and RNA molecule.   * To lead a class   discussion on the structure of DNA and RNA molecules and clarify the students responses. | * To discuss on the   meaning of genetic materials.   * To observe   Models/pictures/photographs of DNA and RNA molecules and discuss its structure and composition.   * To draw and label   the structure of DNA and RNA molecules.   * To discuss on the   structure of DNA and RNA molecules. | * Models/   charts pictures showing genetic materials.   * Models/diagrams/pictures/photographs of DNA molecules. * Plasticise / day soil leads for moulding DNA molecule model * Zip | * Biology   Bob. Rutter al Nelson Canada  Illustrate Human and soil Biology B.S Beckett Oxford University Press. | The student able to explain the concept of genetic materials?  Can the student describe the structure and composition of genetic materials?  Is the student able to differentiate DNA from RNA? |  |
| * To lead students in   groups to observe models/pictures/diagrams of DNA and RNA and discuss their differences.   * To clarify on the   differences between DNA and RNA and make conclusions. | * To observe   models/pictures / diagrams of DNA and RNA and discuss their differences. | * Models /   Pictures / diagrams of RNA and DNA molecule. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | | 2.3  Principles of Inheritance  2.3.1  Concept of inheritance | 2 | * To lead students in   groups to discuss observable features of members of the same family. | * To discuss   observable features of members of the same family. | * Pictures /   photographs of members of the same family.   * Flowers   and leaves of plants of the same family. E.g. Okra, Hibiscus, Cotton ,bean. |  | Can the student explain the concept of inheritance? |  |
| 2.3.2  Mendelian inheritance. | 8 | * To organize a study visit   at school form a nearby peas/bean farm.   * To lead students in   groups to observe and discuss different parts of the plant (i.e steam length flower colour, pod colour and shape)   * To use students findings   to lead a class discussion on the characteristics features used to investigate members first law of inheritance. | * To visit a school   farm or nearby peas/bean farm.   * To observe and   discuss different parts of the plant.   * To summarize   major points and state Mendel’s first law of inheritance. | * Mature pea or bean plant. | Is the student able to state the Mendel’s first law of inheritance? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | MAR  CH | | 1 & 2 |  | |  |  | * To lead students to   discuss the meaning of monohybrid crosses and ratios.   * To guide the students to   illustrate using generic diagrams the monohybrid crosses and ratios. | * To discuss the   meaning of monohybrid crosses and rations.   * To illustrate using   genetic diagrams the monohybrid crosses and rations. | * Pods of   fresh green peas beans.   * Pictures /   Photographs. |  | How accurately can   * The student illustrate monohybrid crosses and ratios. * Can the   student accurately to interpreted monohybrid cross ( and ratios?   * Can the student to interpret data from monohybrid experiment to demonstrate Mendel’s first law of inheritance experimentally? |  |
|  | * To lead the students in   group using guidelines to interpreted data from monohybrid experiments to demonstrate Mendel’s first law of inheritance and discuss that interpretation findings.   * To use students findings to make clarifications and conclusion. | * In groups using   guidelines to interpret data from monohybrid experiments to demonstrate Mendel’s firs law of inheritance and discuss their interpretation findings. | * Peas /   bean seeds   * Beads of   two different colours   * Beakers |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | M  A  R  C  H | |  |  | |  |  | * To guide students in   groups to discuss the patterns of inheritance of albinism, tongue rolling, ABO and Rhesus factors, blood grouping and sickle cell anaemia.   * To reflect on the   presentation and make clarification. | * In groups to   discuss the patterns of inheritance of albinism tongue rolling, ABO an Rhesus factors, blood grouping and sickle cell anaemia.   * To present group   tasks in a plenary discussions. | * 250gm of bean or pea seeds. * 50-100 of two different colours. * Beakers. |  | Inheritance experimentally?  Is the student able to illustrate patterns of inheritance that follow Mendel’s first law of inheritance? |  |
|  |  | | A  P  R  I  L | | 1 | **MID TERM TESTS** | | | | | | | | |
| 2 | MIDTERM BREAK  MARKING AND COMPILLING OF MARKS OF MIDTERM TESTS | | | | | | | | |
|  | | | | | | | | | |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | A  P  R  I  L | | 3 |  | | 2.3.3  Non-Mendelian inheritance. | 6 | * To lead the students to   discuss in groups the meaning of incomplete dominance and co-dominance .   * To use students   responses to clarify on the meaning of incomplete dominance and co-dominance. | * To discuss in   groups the meaning of incomplete dominance and co-dominance. | * Charts/   pictures and photographs showing members of the same family.   * Pictures/   Photographs showing animals with different colours black, white brown and dotted cow, cat, goat, or hen.   * Chart, /   pictures photograph.   * Beads of   different colours.   * Beakers. |  | Is the student able to explain incomplete dominance and co-dominance?  How well can the student illustrate – patterns of inheritance that deviates from Mendel’s first law f inheritance? |  |
| * To lead the students to   discuss on the patterns of inheritance that deviates from Mendel’s first law of inheritance.   * To organize students   responses and use to describe using genetic diagrams the patient of inheritance that deviates from the Mendel’s first law of inheritance. | * To discuss on the   pattern of inheritance that deviates from Mendel’s first law of inheritance.   * To describe the   patterns of inheritance using genetic diagrams. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | A  P  R  I  L | | 4 |  | | 2.4  Sex determination and inheritance. | 8 | * To lead students in   groups using genetic diagrams to describe the mechanisms of sex – determination and inheritance.   * To make clarification   and conclusion on the mechanism of sex determination and inheritance. | * In groups using   genetics diagrams to describe the mechanisms of sex determination and inheritance. | * Photogra   phs / pictures showing different animals. |  | Can the students describe the mechanism of sex determination and inheritance? |  |
| MA  Y | | 1 & 2 | * To lead the students in   groups to discuss the meaning of sex linked sex limited and sex influenced characters.   * To lead the students in   groups to discuss the observable features of animals of different sex (e.g long hair of lion, big comb and plumage of hen, long horns of goat and cow.   * To make clarifications   and conclusion on the concepts of sex linked, sex limited and sex influenced characters. | * In groups to   discuss the meaning of sex linked, sex limited and sex influenced characters.   * In groups to   discuss the observable features of animals of different sex (eg. Long hair of lion, big comb and plumage of hen) | * Charts   /pictures photographs showing animals of different sex.   * Samples   of study report on socio-cultural factors | Is the student able to explain the concept of sex linked sex limited and sex influenced characters?  Is the students able to explain consequence of sex preference and selection? |
| * To lead the students to   discuss on the consequences of sex preference and sex selection. | * To discuss on the   Consequences of sex preference and sex selection. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | MA  Y | | 3 |  | |  |  | * To invite a guest speaker   to table on sex preference and sex selection and its consequences. | * To make points   from the guest speakers presentation that will lead them to explain consequences of sex preference and sex selection. |  |  | Is the student able to explain the concept of sex linked sex limited and sex influenced characters? |  |
| 2.5  Variation among organisms |  | * To lead students in   groups to observe discussion record variations existing among members of the same family.   * To lead class discussion and make clarification. | * To observe,   discuss and record variations among members of the same family in groups. | * Pictures /   photographs of members of the same family.   * Real   objects   * Extracts   /texts on variations among organism.   * Pictures /   photographs of members of the same | Can the students correctly explain the concept of variations.  How accurately can the student identify variations among organisms?  Is the students able to give the meaning of continuous and discontinuous variations? |
|  | * To guide students   through questions and answers to identify variations among organisms.   * To lead students in   groups to carry out simple experiments on variations among organisms and record their findings.   * To lead students in groups   to discuss different types of variations. | * To answer and ask   questions to identify variations among organisms.   * To carry out simple   experiments on variations among organisms and record their findings in groups.   * To discuss the   different types of variations. |
|  | * To lead students to   discuss on the meaning of continuous and discontinuous variations. |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To assign group tasks to   students to observe and discuss different types of variation existing on organisms around the school surroundings.   * To lead students to   discuss the differences between continuous and discontinuous variations.   * To clarify on the   differences between continuous and discontinuous variations. | * To observe and   discuss different types of variations existing in organisms around the school surrounding.   * To discuss the   differences between continuous and discontinuous variation. | * Variety of   organisms around the school surroundings. |  | Can the student differentiate continuous from discontinuous variations? |  |
|  | * To lead students to   discuss and suggest the possible causes of variation among organisms.   * To jot down the   students response on the chalk – bond and give comments on the causes of v variations among organisms. | * To discuss and suggest the possible causes of variations among organisms. | * Variety of organisms showing different variations. |  | Is the student able to explain causes of variations among organisms? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | MA  Y | | 4 |  | | 2.6  Genetic Disorders | 8 | * To lead students in   groups to observe the DNA molecules model and discuss the arrangement of bases.   * To guide students to   the sequence of bases of the DNA molecule model and discuss its consequences.(genotypically and phenotypically)   * To summarize students responses and guide them to formulate proper meaning of genetic disorders. | * To observe the DNA molecules model and discuss the arrangement of bases in groups. | * Models   of DNA molecule   * Picture/   photographs showing individuals with different genetic disorders. |  | Can the student give the meaning of genetic disorders? |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | J  UNE | | 1 |  | |  |  | * To lead students in   groups to discuss various types of genetic disorders. (e.g. turner’s syndrome, Down’s syndrome an Mongolia)   * To lead plenary   discussion on the various types of genetic disorders.   * To lead students in   groups to discuss causes and effects of genetic disorders.   * To lead plenary   discussion and give comments and clarification on the causes and effects of genetic disorders. | * To discuss various   types of genetic disorders (Turners syndrome, down’s syndrome and Mongolia)   * to discuss causes   and effects of genetic disorders in groups and present their groups tasks for plenary discussion. | * Charts /   photographs/sickled red blood cells   * Pictures   photographs showing people with different types of genetic disorders (eg. Turner’s syndrome, Down’s syndrome Mongolia) super males, super females haemophilia and colour blindness   * Samples of   chemicals such as caffeine, nicotine. |  | * Is the   students able to cite examples of genetic disorders?  How accurately can the student explain the causes, and effects of genetic disorders? |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  |  |  | * Sadrugs. * Food   preservative   * Charts / * pictures   showing the effect of x-rays germa valleys and ultra v video light to organisms .   * Heavy   metal e.g mercury |  |  |  |
| 2.7  Application of genetics | 6 | * To lea students in   groups to discuss on the application of genetics in livestock and crop production.   * To organise students   responses and use them to lead a class discussion on the application of genetics in livestock and crop production. | * To discuss on the   application of genetics in livestock and crop production in groups. | * Pictures/   photographs/charts showing crops and livestock hybrids.   * Pictures/   photographs showing genetically modified organism.   * A sample   of  genetically modified food. |  | Is the student able to explain the importance of genetics in biological science and related fields? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To lead students in   groups to discuss the importance of genetics in biological science and related fields.   * To use student   responses to discuss and make clarification on the importance of genetics in biological science related fields. | * To discuss the   importance of genetics in biological science and related fields in groups. | * Pictures   /photographs and charts showing crop and livestock hybrid.   * Pictures/   Photographs showing genetically modified organisms.   * Samples   of genetically modified food. |  | Is the student able to explain the importance of genetics in biological science and related fields? |  |
| 03/6 – 08/06/2013 | | | | | | | | |  | TERMINAL EXAMINATIONS. | | | | |
| 08/06 – 15/07/2013 | | | | | | | | |  | VACATIONS | | | | |
|  | | JULY | | 2 | | |  | |  | MARKING AND COMPLING OF MARKS | | | | |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
| * Make   appropriate use of biological knowledge concept and principles in solving various problem in daily life.   * Perform   practical activities in classification of living things. | * Acquire   basic knowledge skills, aspects, principles and mechanism of physiological processes in plants and animals.   * Classify   organisms in their respective kingdoms, phylum and class. | | J  U  L  Y | | 3 | CLASSIFICATION OF LIVING THINGS. | | 3.1  Kingdom Animalia. | 2 | * To display live/preserved   animal specimens and lead students to group according to their similarities and differences.   * To give guiding   questions to students to observe the collect and displayed organisms identify and record their common characteristics.   * To lead students in a   class discussion on the general and distinctive features of the kingdom animalia and make clarifications.   * To guide students to   observe and group organisms according to their similarities and differences.   * To clarify on students microrceptions. | * To group   live/preserved animal specimens and group then according to their similarities and differences.   * To observe the   collected and displayed organisms, identify and record their common characteristics.   * To discuss on the   general and distinctive.   * Features of the   kingdom Animalia.   * To classify   organisms to their respective phyla. | * A variety   of animals.   * Pictures   and charts of organisms in the kingdom Animalia.   * Charts of   characteristics of kingdom Animalia. | * Fund   amental of Biology Form 4 students Book J.M Mwaniki, G.G Geoffrey DEP   * Biology   Form 3&4 students Book TIE Longman   * Biology   of fundamental approach 3rd edition M.B V. Roberts THOMA Nelson. | Is the student able to explain correctly the general and distinctive features of the kingdom Animalia? |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | | 3.1.1  Phylum platyhelmithes | 2 | * To guide students using hand lenses to observe preserved specimens of flatworms and record their physical features. * To lead a class discussion on the general and distinctive features of phylum plathelmothes and make clarifications. | * To observe   preserved specimens of flatworms and record their physical features using hand lens.   * To discuss on the   general and distinctive features of phylum flathelinthes | * preserved   specimens preserved tapeworms lives fluke.   * Diagrams   /pictures of flatworms e.g. plandria, liver fluke, tapeworms   * Hand lenses. |  | How accurately can the student describe the structure of tapeworm (Taenia)  Is the students able to explain the advantages and disadvantages of Taenia (Tapeworm) |  |
| * To lead students   using hand lenses to observe the tapeworm Taenia and record its distinctive features. | * To   observe the tapeworm Taenia and record its distinctive features. | * Pictures   of flatworms (Taenia)  , liver fluke, plandria   * Charts of   the general and distinctive features of phylum platyhelimthes   * Preserved   specimen of flatworms   * Charts for   the general and distinctive features of Taenia (tapeworm)   * Pictures/   preserve specimen of Tapeworm |
| * To lead a plenary   discussion about the structure and general and distinctive features of tapeworm (Taenia)   * To guide students to   describe the structure of Taenia (Tapeworm)and give clarifications.   * To guide students to   draw a well labelled diagram of a tapeworm. | * To discuss about   the structure and general and distinctions feature of tapeworm (Taenia)   * To describe the   structure of Taenia (Tapeworm) and give clarifications.   * To draw a well   labelled diagram of a tapeworm. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | J  U  L  Y | |  |  | |  |  | * To lead students to   discuss the advantages and disadvantages of flatworms.   * To guide students to   outline the advantages and disadvantages of tapeworms. | * Discuss the   advantages and disadvantages of flatworms.   * Outline the   advantages and disadvantages of tapeworms. |  |  | Is the student able to explain correctly the general and distinctive features of the phylum Ascheminthes (Nematoda)  Can the student describe accurately the structure of Ascaris (round worms)  How correctly can the student outline the advantages and disadvantages of round worms? |  |
| 3.1.2  Phylum Aschelminthes (Nematode) | 4 | * To lead students in   groups to observe preserved round worms or pictures and diagrams of round worms and record their distinctive characteristics.   * To guide students to   discuss in a plenary the distinctive features of round worms and give clarifications. | * To observe in   groups preserved rounds worms or pictures and diagrams of round worms and record their distinctive characteristics.   * To discuss in a   plenary the distinctive features of round worms . | * Preserve   d specimen of round worms (Ascaris)  hookworms   * Hand   Lenses   * Pictures,   charts or photograph of round worms.   * Preserved   specimen of Ascaris.   * Charts,   pictures and diagrams of Ascaris.   * Hand   lenses.   * Charts of   phylum Aschelminthes. |
| * To lead students using   hand lenses to observe and identify posterior and anterior ends of a round worms.   * To guide students to   identify anterior and posterior ends of Ascaris and describe then distinctive features. | * To observe and   identify had lenses anterior and posterior ends of Ascaris and describe their distinctive features.   * To draw and label   a diagram of the roundworms (Ascaris). |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To lead students in   groups to discuss the advantages and disadvantages of phylum Ascheminthes and present their word in a plenary session. | * To discuss in groups advantages and disadvantages of phylum Ascheminthes and present their work in a plenary session. | . |  |  |  |
| * To reflect on the   presentations giving comment. |  |
|  |  | | AUGUS  T | | 1 |  | | 3.1.3  Phylum Annelida | 4 | * To lead students to   observe organisms under the phylum Annelida (earth worm and leeches) and discuss their characteristics.   * To lead plenary   discussion on the general and distinctive features of the phylum Annelida. | * To observe   organisms under the phylum Annelida (earthworm and leeches) and discuss their characteristics.   * To discuss on the   general and distinctive features of the phylum Annelida. | * Diagrams   and pictures of leads and earthworm.   * Preserved   specimens of annelida.   * Charts to * show the   structure of leeches and earthworm   * Live or   preserved earthworm hand lens. | Is the student able to explain accurately the general and distinctive features of the phylum Annelida?  Is the student able to explain the advantages & disadvantages of Lubricous (earthworm)? |
| * To guide students using   hand lens to observe preserved and live specimens of earthworms to identify body parts. | * To observe   preserved and live specimens of earthworms to identify body parts using had lens. |
|  | * Students in groups   to discuss advantages and disadvantages of Lubricous (earthworm) |
| **MOCK EXAMINATIONS** | | | | | | | | | | | | | | | |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | AUGUS  T | | 2 | | | 3.1.4  Phylum Anthropoda | 4 | * To lead a plenary discussion on general and distinctive features of phylum Arthropoda. | * In groups using   guiding questions to observe and record the distinctive and general features of the collected displayed specimens of Arthropods. | * Pictures,   diagrams of arthropods.   * Preserve   d or live specimens of varieties of Arthropods   * Hand lens * Pictures   and photographs of variety of arthropods   * Chart of   classes of arthropods   * Hand lens * Variety of   organism of each class of the phylum arthropods. |  | * How   accurately can the student explain the general and distinctive features of the phylum Arthropod?   * Can the   student accurately mention the classes of the phylum Arthropoda?   * How   accurately can the student cite examples of organism under each class of the phylum Arthropoda? |  |
| * To lead students in   groups to observe variety of arthropods and groups them according to their similarities and differences.   * To lead a plenary   discussion and make necessary clarifications. | * To observe variety   of arthropods and group them according to their similarities and differences.   * To discuss and   make necessary clarification |
| * To guide students to   collect variety of organisms belonging to each class of the phylum Arthropoda.   * To led students in   groups to discuss the characteristic features of organisms under each class and cite. Example of organisms belonging to each class. | * To collect variety   of organisms belonging to each class of the phylum Arthropoda.   * To discuss in   groups the characteristic features of organisms under each class and cite examples of organisms belonging to each class. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | AUGUS  T | |  |  | |  |  | * To lead students in   groups to discuss the general and distinctive characteristics of one of the five classes of phylum Arthropoda .   * To guide the students in   their groups to discuss and came up with the correct general and distinctive characteristics of the respective class. | * To discuss in   groups the general and distinctive characteristics of one of the five classes of phylum Arthropoda.   * To discuss in   groups and come up with the correct general and distinctive characteristics of the respective class. | * A variety   of Arthropods (live or preserved specimens)   * Charts,   pictures, photographs showing variety of Arthropods. |  | * Is the   student able to explain distinctive features of each class of phylum Arthropoda?   * Can the   students describe the structures of representative organisms under each class? |  |
| * To guide the students in   groups to observe organism of each of the phylum Arthropoda and discuss their characteristic features.   * To guide students to   draw well labelled diagrams of representative organisms under each class of the phylum Arthropoda.   * To lead a plenary   discussion and reflect on students responses to make general comments and clarifications. | * To observe   organisms of each of the phylum Arthropoda and discuss their characteristic features.   * Students to draw   well labelled diagrams of representative organisms under each class of the phylum Arthropoda. |  |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | AUGU  S  T | | 3 & 4 |  | |  |  | * To guide students in   groups to discuss the advantages and disadvantages of each class of the phylum Arthropoda.   * To lead students to   present their group tasks in a plenary session and reflect on the students responses and give clarification. | * Students in groups   to discuss the advantages and disadvantages of each class of the phylum Arthropoda   * To prevent group   tasks in a plenary session. | * Chart   showing advantage and disadvantages of each class of phylum arthropods.   * A variety   of arthropods (live or preserved species) |  | * How   accurately can the student explain the advantage and disadvantages of each class of the phylum Arthropoda? |  |
|  |  | |  | |  |  | | 3.1.5  Phylum Chordata | 8 | * To guide students to   observe a variety of common chordates and record their observations.   * To guide students in a   class discussion to  outline the general and distinctive features of phylum chordata. | * To observe a   variety of common chordate and record their observations.   * To present their   in plenary to outline the general and distinctive features of phylum chordata. | * Pictures, charts, photographs showing varieties of common chordate. E.g mice, frog, hazard, buds, fish, snake, mouse and rats. Live a preserved specimens of chordates eg. Frog, fish, lizard, rats & birds |  | Is the students able to explain the general and distinctive characteristics features of the phylum chordate? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To lead students using   questions and answers to identify different groups within the phylum chordata.   * To lead students in   groups to discuss on different classes of the phylum chordata.   * To lead plenary   discussion and give necessary clarifications. | * To identify   different groups within the phylum chordata.   * To discuss on   different classes of the phylum chordata. | * Charts/   pictures/ photographs of different chordates in their respective classes.   * Varieties   of chordates (live in preserved specimen) |  | Can the student mention the classes of the phylum chordata? |  |
| * To organize students   into groups and assign each group a task of collecting information from relevant textual materials about classes of phylum chordata. | * To collect   information from relevant textural materials about classes of phylum chordata.   * To present their   findings in a plenary session. | * Charts/pi   ctures/photographs of different chordates in their respective classes.   * Varieties   of chordates (live in preserved specimen)   * Live on   preserved specimens of different chordates, e.g birds, frog/toad & lizard. | Can the student correctly explain the distinctive characteristics of each class of phylum chordata. |
| * To guide students to   describe the features of some common chordates draw and label them to show their external features. | * To describe the   features of some common chordates draw and label them to show their external features. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To guide students to   discuss in groups the advantages of each class of the phylum chordata and tabulate for each class of phylum chordata. | * To discuss in   groups the advantages of the phylum chordata.   * To tabulate the   advantages and disadvantages of each class of phylum chordata. | * Live a   preserved specimen of different chordates.   * Charts/pi   ctures/photographs showing different chordates. |  |  |  |
|  |  | | S  E  P  T  E  M  B  E  R | | 1 | 4.0  E  V  O  L  U  T  I  O  N | | 4.1  Concept of Organic Evolution |  | * To lead students   through questions and answers to give the meaning of organic evolution.   * To lead students to   discuss the meaning of organic evolution. | * To give the   meaning of organic evolution.   * To discuss the   meaning of organic evolution. | * VIPP cards on the concept of organic evolution. | * Fundam   entals of Biology form 4 students Book. J.M Mwaniki, G.G Geoffrey Delah Education Publishers LTD. & Biology Form 3&4 students Book Tanzania Institute of Education Longman. Biology of functional Approach 3re edition BV Roberts Thomas | Is the student able to explain the concept of organic evolution? |
| 4.2  Theories of the origin of life. |  | * To prepare cards on   texts on the basic ideas about origin of life.   * To lead a class   discussion, give general comments and make conclusion. | * To discuss in small   groups the basic ideas about the origin of life and present their task using the prepared cards or texts. | * VIPP   cards   * Texts   excreted from various sources on the basic ideas about the origin of life. | To what extent can the student outline the basic ideas about the origin of line. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | S  E  P  T  E  M  B  E  R | | 2 |  | |  |  | * To lead student discuss in small groups the theories of the origins of life. * To guide the students in summarizing the major ideas. | * To discuss in small   groups the theories of the origins of life such as special creation, spontaneous generation and steady state theories using guiding questions.   * To present group   tasks in plenary discussion. | * Texts   extracted from various sources explaining theories of the origin of life. | * Biolo   gy of Ritten et. Al Nelson Canada. | Can the student state the theories of the origin of life? |  |
| 4.3.1  Lamarck’s | 2 | * To lead a class   discussion on the major ideas of the Lamarck’s theory of evolution. | * Discussion on the   major ideas of the Lamarck’s theory of evolution.   * To summarize the   major ideas of Lamarck’s theory of evolution. | * VIPP   cards on the major idea of Lamarck’s theory |  | How correctly can the student state Lamarck’s theory of evolution. |
|  | * To lead students using   questions and answers to point out the Lamarck’s observation and deduction. | * To joint out the   Lamarck’s observation and deductions.   * To summarize   their responses on the Lamarck’s observations and deductions. | * Chart on   the Lamarck’s observation and deductions. |  | Is the student able to explain Lamarck’s observation and deductions? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To guide students to   brainstorm on the merits and demerits of Lamarck’s theory of evolution.   * To guide students to   organize and summarize their responses on the merits and demerits of Lamarck’s theory of evolution. | * To brainstorm on   the merits and demerits of Lamarck’s theory of evolution. |  |  | Can the student outline the merits and demerits of Lamarck’s theory of evolution? |  |
| 3 |  | | 4.3.2  Darwin’s |  | * To lead a class   discussion on the major idea of Darwin’s theory of evaluation. | * To discuss on the   major idea of Darwin’s theory of evolution.   * To summarize the   major ideas in order to state Darwin’s theory of evolution. | * VIPP   Cards on the Darwin’s theory of evolution. |  | Is the student able to state Darwin’s theory of evolution? |
|  | * To guide students in   groups to discuss Darwin’s observations and deductions using guiding questions.   * To guide students to   summarize their responses and make conclusion. | * To discuss Darwin’s   observations and deductions using guiding questions.   * To present group tasks in plenary discussion. | * A chart   showing summary of Darwin’s observation and deductions. |  | To what extent is the student able to outline Darwin’s observation and deductions? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To lead students to   discuss in groups and make presentations on the major ideas in the theory of natural selection in relation to the mechanisms of evaluation. | * To discuss in   groups and make presentation on the major ideas in the theory of natural selection in relation to the mechanics of evolution. | * A chart showing major ideas of the theory of natural selection. |  | How accurately can the student explain the theory of natural selection in relation to the mechanisms? |  |
|  | * To lead plenary   discussion and guide students to summarize major ideas, make discussions and conclusion. |  |  |  |  |
|  | * To lead students to   discuss in groups the merits and demerits of Darwin’s theory of evolution using guiding questions.   * To guide them to   summarize and record major points on merits and demerits of Darwin’s theory of evolution. | * To discuss in   groups the merits and demerits of Darwin’s theory of revolution using guiding questions.   * To present in   plenary their groups tasks. | * A manila   sheet showing tabulation of merits and demerits of Darwin’s theory of evolution. |  | Is the student able to explain the merits and demerits of Darwin’s theory of evolution? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | | 4.4  Evidence of organic Evolution | 6 | * To guide students   through questions and answers to list down sources of evidence of organic evolution. | * To list down   sources of evidence of organic evolution. | * Photographs   of remains of plants and animals in rocks. |  | Can the student mention sources of evidence which support organic evolution? |  |
| * To lead a class   discussion on the sources of evidence of organic evolution. | * To discuss on the   source of evidence of organic evolution. |  |  |  |
| * To guide students in   groups to observe pictures or photographs and discuss the evidences of organic evolution.   * To guide students to summarize major points and make clarifications. | * To observe   pictures or photographs and discuss the evidences of organic evolution.   * To present group   tasks in plenary discussion. | * Photocopy   pictures of fossils in the rock strata. |  | Can the student adequately explain the evidence of organic evolution? |
| * To organize a study tour   to the archives historical sites which show the evidence of organics evolution?   * To lead plenary   discussion guide students to summarize their findings and make conclusion. | * To make a study   tour to the archives historical sites which show the evidence of organic evolution.   * To discus in groups   the major findings from the study tour, prepare a report and present in plenary discussion. | * Photocopy   pictures of follies in the rocks |  | How correctly can the student investigate evidences and application of organic evolution in real life situation? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | | OC  TOB  E  R | | 1&2 | 5.0 HUMAN IMMUNO DEFFICIENCY VIRUS (HIV) ACQUIRED IMMUNE DEFFICIENCY SYNDROME (AIDS)  AND SEVUALLY TRANSMITTTED INFECTINS (STIs) | | 5.1  RELATION BETWEEN HIV, AIDS AND STI S | 6 | * To guide students to brainstorm on the differences between HIV, AIDS and STIs. * To guide students to record the correct responses and tabulate the differences between HIV, AIDS and STIs. | * To brainstorm on   the difference between HIV, AIDS and STDs.   * To record the   correct responses and tabulate the differences between HIV, AIDS and STIs. | * Reports   from UNAIDS, NACP and TACAIDS.   * Charts   on AIDS in Africa. | Biology  form 3 & 4 students book TIE Longman. | Is the student able to distinguish between HIV/AIDS and STIs? |  |
|  | * To lead a class   discussion on relationship between HIV and STIs focusing on similarities, differences, Mode of transmission and effects.   * To guide students to   record and summarize major ideas on the relationship between HIV and STIs. | * To discuss on   relationship between HIV and STIs focusing on similarities, differences, mode of transmission and effects.   * To record and   summarize major ideas on the relationship between HIV and STIs. | * Reports   on HIV/AIDS and STIs.   * Charts on   AIDS in Africa would /Tanzania. | Is the student able to explain the relationship between HIV and STIs? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To prepare guideline for   students to investigate the impact of HIV/AIDS and STIs in the community.   * To guide students to   analyze their findings and present study reports in a plenary session and clarify where necessary | * To investigate the   impact of HIV/AIDS and STIs in the community.   * To carry out an   investigation on the impact of HIV/AIDS and STIs in the community to analyze findings and present study reports in a plenary session. | * Real   objects   * Samples   of study reports on impacts of HIV/AIDS/STIs. |  | Can the student investigate the impact of HIV/AIDS and STIs in the community? |  |
| 5.2  Management and control of HIV/AIDS and STIs. | 6 | * To lead students to   discuss ways of management and control of HIV/AIDS and STIs in the community.   * To guide student to   present their tasks in plenary discussion and make necessary clarification. | * To discuss ways of   management and control of HIV, AIDS and STIs in the community.   * To present task in   a plenary discussion. | * Manual   on management HIV/AIDS and STIs.   * Reports   on HIV/AIDS and STIs.   * Extracts   texts on HIV/AIDS and STIs. |  | Is the student able to outline ways of managing and controlling HIV/AIDS and STIs? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To prepare   extracts/texts from magazine on books on the management of HIV/AIDs/STIs.   * To guide students in   groups to role play how to use different life skills in the management and control of HIV/AIDS and STIs.   * To lead students to   reflect on role plays and summarize major ideas in the management and control of HIV/AIDS/STIs. | * To discuss in   groups life skills needed for management and control of HIV/AIDS and STIs.   * To role play how   to use different life skills in the management and control of HIV/AIDS and STIs.   * To reflect on role   plays on the management on the HIV/AIDS /STIs. |  | * Life   skill manual. Extra ts/texts on life skills for management of HIV/AIDS and STIs. FLE Biology Teachers guide Form 3&4 | Can the student mention the appropriate life skill needed for home based care for PLWHA |  |
| * To guide student to   discuss on the necessary precautions when handling HIV infected people and those with STIs/STDs. | * Discuss on the   necessary precautions when handling HIV infected people and those with STIs/STDs.   * To share group   work in a plenary session. |  | * Brochur   es and fliers on method of handling people living with HIV/AIDS. Charts on HIV/AID/STIs in Africa/World /Tanzania. | Can the student mention the appropriate the life skills needed for management and control of HIV/AIDS and STIs. |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To guide students to   prioritize the mentioned precautions for handling people with STIs and those living with HIV/AIDS. | * To prioritize the   mentioned precautions for handling people with STIs and those living with HIV/AIDS | * FLE   Biology Teachers Guide for Form 3&4 |  |  |  |
| 5.3  Counselling and voluntary Testing (CVT) |  | * To lead students in   groups to discuss the meaning and importance of CVT.   * To give clarifications   where necessary of the presentation. | * To discuss the   meaning and importance of counselling and Voluntary Testing.   * To present group   tasks in a plenary discussion. | * CVT   manual.   * Reports   on HIV/AIDS/STIs. |  | Is the student able to explain the concept of CVT? |
|  | * To lead students   through questions and answers to outline the significance of CVT in the control of HIV/AIDS/STIs.   * To lead student to   discuss in groups the significance of CVT in the control and prevention of HIV and STIs.   * To give clarifications on the presentations. | * To outline the   significance of CVT in the control of HIV/AIDS/STIs.   * To discuss in   groups the significance of CVT in the control and preventation of HIV and STIs.   * To present their   tasks in plenary session. | * manual on CVT.   .   * Reports   on CVT |  | Can the student outline the significance of CVT in control and prevention of HIV and STIs? |
| COMPETENCE | GENERAL OBJECTIVES | | MONTH | | WEEK | MAIN TOPIC | | SUB-TOPIC | PERIODS | TEACHING ACTIVITIES | LEARNING ACTIVITIES | T/L MATERIAS | REFERENCES | ASSESSMENT | REMARKS |
|  |  | |  | |  |  | |  |  | * To provide guidelines on   the procedures and techniques of CVT.   * To guide students in the   discussion and make a clarification of the findings and observations in the plenary discussion. | * To discuss in   groups the procedures and techniques of CVT and record the main ideas.   * To share findings   and observations in plenary session. | * Manuals   on CVT for HIV/AIDS/STIs.   * Extracts   /texts on procedures and techniques of CVT. |  | Is the students able to explain the procedures for CVT? |  |