**THE PRESIDENT’S OFFICE-**

**REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

**SCHEME OF WORK**

**SCHOOL’S NAME:**

**TEACHER’S NAME:**

**SUBJECT: BIOLOGY**

**CLASS: FORM IV**

**TERM: 1 & 2**

**YEAR: 2025**

| **MAIN COMPETENCE** | **GENERAL OBJECTIVES** | **MONTH** | **WEEK** | **MAIN TOPIC** | **SUB TOPIC** | **PERIOD** | **TEACHING ACTIVITIES** | **LEARNING ACTIVITIES** | **T/L MATERIALS** | **REFERENCE** | **ASSESSMENT** | **REMARKS** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| To perform practical activities in Growth, Processes, Genetics and evolution | To develop Practical Skills in studying growth process, genetics and evolution | **J**  **A**  **N**  **U**  **A**  **R**  **Y** | **3** | **GROWTH** | **concept of growth** | 2 | To lead students discussion on meaning and importance of growth | To discuss the meaning and importance of growth | Chart showing organism growth | **SCSU &MoEVT**  **(2012), Biology for secondary schools form 4, Uhuru media, Zanzibar** | Can a student explain the meaning of growth? |  |
|  | **mitosis and growth** | 1 | To guide students in groups to discuss the concept of mitosis. | To discuss the concept of mitosis | Chant showing stage of mitosis | Is a student able to explain the concept of mitosis? |  |
|  |  |  |  |  | 1 | To lead students discussion on significances of mitosis in growth | To discuss the significances of mitosis in growth | Chart of mitosis stages | Can a student outline importance of mitosis in growth? |  |
|  |  |  | **4** |  | **growth and developmental stages in human** | 2 | Guiding students to explain the concept of growth and developmental stage | students to explain the concept of growth and developmental stage | Chart on Growth development stage | Is a student able to explain growth developmental st? |  |
|  |  |  |  |  | 1 | To guide students to explain the stages of human postinal growth, the physiological and psychological and bahaviour change | students to explain the stages of human postinal growth, the physiological and psychological and bahaviour change | Chart on Stage of human growth |  | Can student explain the human growth stage? |  |
| 1 | To guide students to outline factors which affect the rate of physical deterioration of human body and services required to meet the need of an individual at each stage. | students to outline factors which affect the rate of physical deterioration of human body and services required to meet the need of an individual at each stage. |  |
|  |  | **FEBRUARY** | 1 |  | **growth in flowering plants** | 2 | To lead students on discussion on meaning of localized growth in plants | To discuss the meaning of localized growth in plants. | Germinating seed |  | Is a student able to explain seed germination? |  |
|  |  |  |  |  |  | To guide students discussion on changes that occurs during seed germination | To discuss the changes that occurs during seed germination | Extract on change occurs during seed germ |  | Can student outline changes during seed germination |  |
|  |  |  | 1 |  |  | 2 | To lead class discussion on necessary conditions for seed to germinate | To outline the conditions necessary for seed to germinate | Seed, Water  Cotton wool  Petri dishes  Indian ink  Textual material |  | Is a student able to outline conditions necessary for germination? |  |
| TO PERFORM PRACTICAL ACTIVITIES IN GROWTH PROCESS, GENETICS AND EVOLUTION | TO DEVELOPO PRACTICAL SKILLS IN STUDING GROWHT PROCESS, GENETICS AND EVOLUTION | **F**  **E**  **B**  **R**  **U**  **A**  **R**  **Y** | **2** | **GENETICS** | **concept of genetics** | 2 | To guide students discussion on meaning of genetics, variation and resemblance among the members of the same family | To discuss the meaning of genetics, variation and resemblance | Photographs showing member of the same family | **SCSU &MoEVT**  **(2012), Biology for secondary schools form 4, Uhuru media, Zanzibar** | Is a student able to explain the concept of genetics? |  |
|  |  |  | To display the common terms that one used in genetic | To discuss the meaning of each term | Charts of common terms | can student state the common terms? |  |
|  |  |  |  | To clarify on meaning of genetic materials | To discuss the structure and composition of RNA and DNA | Chart showing genetic material | Is a student able to explain concept of genetic material |  |
|  |  | **2** | **genetic materials** | 2 | To lead students discussion on structure and composition of DNA and RNA | To discuss the structure and composition of RNA and DNA | Diagram of DNA molecule | Can student describe the structure of DNA? |  |
|  |  |  |  | **principles of inhertitance** | 2 | To guide students on concepts of inheritance | To discuss the observable features of members of the same family | Photos of the members of the same family |  | Is a student able to explain the concept of inheritance? |  |
|  |  |  | **3**  **&**  **4** | **mendelian inheritance** | 6 | To lead student’s discussion on characteristics features used to investigate Mendel 1st law. | To discuss the features used in formulation of 1st law of mendel. | Mature beam or pea plant |  | Is a student able to state 1stMendel’s law? |  |
|  |  |  |  |  | To lead students discussion on monohybrid crosses and ratios | To discuss monohybrid and monohybrid ratios | Photos of bean pods |  | Can student illustrate monohybrid ratios? |  |
|  |  | **MARCH** | 1 | **non-medelian inheritance** | 4 | To lead students on meaning of incomplete and co-dominance dominance | To discuss meaning of un complete and co-dominance | Chart /pictures showing members of the same family |  | Is a student able to explain incomplete and co-dominance? |  |
|  |  |  |  |  | To lead students discussion on patterns of inheritance that deviate from mendelian principle | To discuss the patterns of inheritance that deviate from mendelian first law of inheritance | Charts, pictures, photographs |  | Can student explain the pattern that deviate from mendelian? |  |
|  |  |  | **2** | **GENETICS** | **variation among organism** | 4 | To guide students discussion term variation among the organisms | To discuss the meaning variation among the organism | Photographs of members of the same family |  | Can a student explain the concept of variation? |  |
|  |  |  |  |  |  | To lead students discussion to identify variation among organisms | To identify variation among organisms | Text on variation among organisms | **SCSU &MoEVT**  **(2012), Biology for secondary schools form 4, Uhuru media, Zanzibar** | Can a student explain the concept of variation? |  |
|  |  | **MARCH** | **3** |  | **genetic disorders** | 4 | To guide students on discussing the meaning of genetic disorders. | To discuss the meaning of genetic disorders | Picture showing people with different disorders |  |  |
|  |  |  |  | To lead students discussion on causes and effects of genetic disorders | To discuss the causes and effects of genetic disorders | Picture showing people with different disorders | Can student give the meaning of genetic disorders? |  |
|  |  |  |  | **application of genetics** | 4 | To guide students discussion on application of genetics on livestock and crop production | To outline genetics application in livestock and crop production | Picture showing crops and livestock hybrids | Can a student outline the application of GENETICS? |  |
| **MIDTERM TEST 4TH OF MARCH TO 2ND WEEK OF APRIL** | | | | | | | | | | | | |
| **MIDTERM BREAK 11TH- 22ND APRIL 2025** | | | | | | | | | | | | |
| TO GROUP ORGANISMS ACCORDING TO THEIR SIMMILATIES AND DIFFERENCES | TO CLASSIFY ORGANISMS IN THEIR RESPECTIVE KINGDOMNS PHYLUM AND CLASS | **APR**  **I**  **L** | **2** | **CLASSIFICATION OF LIVING THINGS** | **kingdom animalia** | 2 | To lead students discussion on general and distinctive features of kingdom animalia. | To outline the general and distinctive features of kingdom animalia | Pictures and charges of organisms in K. Animalia |  | Can student explain general and distinctive feature of kingdom animalia? |  |
|  | **3** |  | **Phylam platyhelminthes** | 4 | -To guide students on outlining general and distinctive features  -To lead student in describing structure of tape worms | -To discuss and hence outline general and distinctive features.  - To describe the structure of tape worms | Preserved specimens  -v |  | Is a student giving general distinctive f. of plathyhelm in this?  - Can student able to describe structure of tape worms? |  |
|  |  |  | **4** |  | **Phylum aschelminthes (nematoda)** | 4 | To lead students discussion on general and distinctive features of round worms | To discuss the general and distinctive features of round worms | Photographs of round worms |  | Is a student able to describe district ve features? |  |
|  |  |  |  |  |  | To guide students to mention advantage and disadvantages of nematode | To give the advantages and disadvantages on Nematoda | Chart of phylum as chelhelminthes |  | Can a student able to outline advantage and disadvantage of round worm? |  |
|  |  | **MAY** | **1** |  | **Phylum arthropoda** | 2 | To guide student discussion on general and distinctive feature of phylum Arthropoda | To discuss the general and distinctive features of phylumArthropoda | Orgaisms under phylum Arthropoda | **SCSU &MoEVT**  **(2012), Biology for secondary schools form 4, Uhuru media, Zanzibar** | Can student give general and disincentive feature of arthropoda? |  |
|  |  | **MAY** | 1 |  |  | 2 | To guide students on structure and characteristic of each class of phylum arthropoda | To discuss the structure and x’tics of each class of phylum arthropoda | Variety of organisms under arthropoda phylum | Can student describe structure and x’tics of each clasin phylum arthropoda |  |
|  |  |  | **2** |  | **Phylum chordata** | 4 | To guide students on structure and characteristic of each class of phylumchordata | To discuss the structure and x’tics of each class of phylum athropoda | Variety of organisms under arthropoda phylum | Can student describe structure and x’tics of each classin phylum arthropoda. |  |
| TO PERFERM PRACTICAL ACTIVIIES IN GROWTH PROCESS AND EVOLUTION | TO DEVELOP PRACTICAL SKILLS IN STUDING GROWITH PROCES AND EVOLUTION |  | **3** | **EVOLUTION** | **Concept of organic evolution.** | 4 | To lead students through questions and answers to give the meaning of organic evolution | To discuss the meaning of organic evolution. | Text extracts on organic evolution | Is a student able to explain the concept of organic Evolution? |  |
|  |  |  |  |  | **Theories of origin of life** | 4 | To prepare text on the basic ideas about origin of life. | To discuss the ideas of the origin of life | Different sources about origin of life. |  | Can student outline ideas about origin of life? |  |
|  |  |  |  |  |  | To guide students on statements concerning origin of life | To state the theories of origin of life | Text explaining the origin of life. |  | Can the student state the theories of the origin of life? |  |
|  |  |  |  |  | **lamarckism** | 4 | To lead students discussion on major ideas of Lamack. | To summarize the major ideas of Lamack’s theory | Ideas of lameck theory |  | Is a student able to state Lamarck’s evolution |  |
|  |  |  |  |  |  | To guide students discussions. Merits & demands of Lamack theory of evolution | To discuss merits and demerits of Lamack theory of evolution | Chart on the merit and demerits of lamackism |  | Merit & demerits of Lamark’s evolution? |  |
| **TERMINAL EXAMINATIONS 4TH WEEK OF MAY TO 1ST WEEK OF JUNE** | | | | | | | | | | | | |
| **TERMINAL LEAVE 06TH JUNE– 08TH JULY 2025** | | | | | | | | | | | | |
|  |  | **JULY** | **2** |  | **Darwinism** | 4 | To lead students discussion on major ideas of Darwin’s theory of life evolution | To discuss the major ideas of Darwin’s theory of evolution | Darwinism theory of evolution cards |  | Can student state darwins theory of evolution? |  |
|  |  |  |  |  |  | To organize a study tour historical site which shows the evidence of organic evolution | To discuss and record the major finding | Photographs/  pictures of fossils in the rocks | **SCSU &MoEVT**  **(2012), Biology for secondary schools form 4, Uhuru media, Zanzibar** | Can a student state the application of organic evolution in real life situation? |  |
|  |  | **AUG** | 1 |  | **Evidence of organic evolution** | 4 | Through questions and answers to guide students to list the sources of evidence of organic evolution | Students to discuss and summarize the major points |  |  |  |
| TO DEMOSTRATE POSITIVE ATITUDES TOWARDS PERSONAL, COMMUNITY AND SOCIAL VALUES AS WELL AS RESOLVING HEALTH RELATED PROBLEMS | TO APPLY POSTIVE ATTITUDE TOWARDS COMMUNITY AND SOCIAL VALUES AS WELL AS HEALTH RELATED PROBLEMS | **AUGUST** | **2** | **HUMAN IMMUNODEFICIENCY VIRUS (HIV) AQUIRED IMMUNE DEFICIENTY SYNDROME (AIDS) AND SEXUALY TRANSMITTED INFECTION (STis)** | **relationship between HIV, AIDS and STI’s** | 4 | To lead students on distinguishing between HIV, AIDS and STIs. | To distinguish between HIV, AIDS and STIs | Charts on AIDS in Africa | Is a student able to distinguish between HIV, AIDS and STIs? |  |
|  |  | To guide students discussion of HIV and AIDS relationship | To discuss the relationship between HIV and AIDS | Reports on HIV/AIDS & STDs | Is a student able to relate HIV & AIDS? |  |
| **AUGUST** | **3** | **management of hiv, aids and stis** | 4 | To guide student the ways of managing and controlling HIV, AIDS and STIs | To discuss and present their work | Extracts on HIV – AIDS & STIs | Can a student able to outline ways of controlling HIV – AIDS? |  |
|  |  |  | To prepare extract from magazine on the management of HIV-AIDS & STIs | To discuss life skills needed for management of HIV – AIDS and STIs. | Life skill manual |  | Is a student able to mention the appropriate life skills needed for PLWHA |  |
|  |  | **4** |  | **counseling and volutany testing (cvt)** | 4 | To lead students discussion on meaning and importance of (CVT) | To discuss the meaning and importance of (CVT) | CVT manual |  | Is a student able to explain the meaning of (CVT) |  |
|  |  |  |  |  |  | To lead students o their discussion on produces of (CVT) | To discuss the procedure of CVT | Extracts on procedures and technics of CVT |  | Is a student able to explain procedures and techniques of CVT? |  |
|  |  | **REVISION AND PREPARATION FOR FORM IV NECTA EXAM** | | | | | | | | | |
|  |  |  | **FORM FOUR NATIONAL EXAMINATION** | | | | | | | | | |