**PRESIDENT’S OFFICE, REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

**SCHEME OF WORK**

**Name of teacher: Name of School:**

**Year: 2024 Term: 1 & 2**

**Class/Stream: FORM TWO Subject: BIOLOGY**

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| **MAIN COMPETENCE** | **SPECIFIC COMPETENCE** | TEACHING ACTIVITIES | **MONTH** | WEEKS | PERIODS | REFERENCES | TEACHING/\LEARNING TOOLS | ASSESSMENT TOOLS | REMARKS |
|  | **KINGDOM FUNGI** | To prepare students to :-   * Observe diagrams and discuss the general and distinctive features of kingdom fungi * State the phyla of kingdom | **JANUARY** | 2ND | 06 | Tanzania Institute of Education (2021), Biology for Secondary Schools, Book two, TIE, DSM. | Pictures/charts of common fungi  Charts of organisms under kingdom fungi | Questions  Quiz  Assignments  Exercise  Test |  |
| Prepare student s to:-   * Discuss structure of mosses. * Discussion advantages and disadvantages of mosses | Diagrams showing structure of mosses  Sample of liverworts mosses |  |
| **KINGDOM PLANTAE** | Prepare student to:-   * Observe organism under filicinophyta and discuss general and distinctive x’ tics | 3RD  TO  4TH | ferns | /  QUESTIONS  QUIZ  ASSIGNMENTS  EXERCISE  TEST |  |
| Prepare students to:-   * Discussion on structure of fern * Discussing advantages on disadvantages of ferns | Diagram showing structure of fern  Diagrams showing the sample of ferns |  |
| **NUTRITION** | **CONCEPT OF NUTRITION AND FOOD NUTRIENTS** | To prepare student to:-   * Discuss the meaning of nutrition and food nutrients | **FEBRUARY** | 1ST | 12 | Varieties of food substance | Questions  Quiz  Assignments  Exercise  Test |  |
| **CLASSIFICATION** |  | * Discussion on importance of metricize in living things | 2ND |  |  | Chart displaying different food substances | Questions  Quiz  Assignments  Exercise  Test |  |
| **HUMAN NUTRITION** | Prepare student to:-   * Discussion on types and functions of food substance * Discussion on meaning of balanced diet in terms of quality and quantity * Display picture showing people with nutritional deficiencies and disorders |  | Charts showing different types of food substance  Balanced diet chart  Chart showing people with deficiencies |  |
| **DIGESTIVE SYSTEM IN HUMAN** | To prepare students discussion on major parts of digestive system and their roles | 3RD  TO  4TH |  | Model of human digestive system |  |
| To prepare students discussion on digestion process | Diagram of human digestive system |  |
| **NUTRION IN PLANTS** | To prepare students to brain storm on essential mineral elements in plant | **MARCH** | 1ST  TO  2ND | 09 | Chart showing types of fertilizer |  |
| To prepare students discussion on meaning and importance of photosynthesis | Diagram showing photosynthesis process |  |
| To prepare students on discussing photosynthesis process |
| To prepare students discussion on importance of photosynthesis in real life situation | Tanzania Institute of Education (2021), Biology for Secondary Schools, Book one, TIE, DSM. | Chart showing photosynthesis process |  |  |
|  | **PROPERTIES OF FOOD SUBSTANCES** | To display a variety of sources of food substances | 3RD | 03 | Variety of food substance | QUESTIONS  QUIZ  ASSIGNMENTS  EXERCISE  TEST |  |
| To prepare students on types of reagents which are used in food substances identification | Reagent & chemicals for food test |  |
| **FOOD PROCESSING PRSERVATION AND STORAGE** | To prepare student to brainstorm on concepts of food processing, preservation and storage | 03 | Samples of raw food, preserved and processed |  |
| To prepare students discussion on importance of food processing, preserving & storage | Photo of preserved and processed food |  |
| **MID-TERM ASSESSMENT (4TH WEEK OF MARCH)**  **MID-TERM BREAK (28/03/2024 - 08/04/2024)** | | | | | | | | | |
| **BALANCE OF NATURE** | **NATURAL ENVIRONMENT** | To prepare students in visiting school compounds to observe the natural environment | **APRIL** | 2ND | 03 |  | Photographs of natural  environment | Questions  Quiz  Assignments  Exercise  Test |  |
| To prepare students discussion on components of N. Environment | Soil, water,  microorganisms |  |
|  |
| **INTERACTION OF ORGANISM IN THE ENVIRONMENT** | To prepare a field study near school environment | 3RD | 03 | Tanzania Institute of Education (2021), Biology for Secondary Schools, Book two, TIE, DSM. | Natural habitat of different types | QUESTIONS  QUIZ  ASSIGNMENTS  EXERCISE  TEST |  |
| **FOOD CHAIN AND FOOD WEB.** | To prepare students around school environment to observe different organism and their environment | Organisms in their habitats |  |
| 4TH | 03 |
| To prepare students discussion on components of food chain and food web | Chart showing feeding relations among organisms. |  |
| To prepare students in groups to outline the differences between food chain and food web. | Diagram of food chain and food web |  |
| **TRANSPORT OF MATERIALS IN LIVING THINGS** | **THE CONCEPT OF MATERIALS IN LIVING THINGS** | To prepare class to discuss the concept of transport in living things | **MAY** | 1ST | 03 | Chart showing transport of materials |  |
| To prepare students to discuss the importance of transporting material | Chart showing transport of material in L. things |  |
| **DIFFUSION OSMOSIS & MASS FLOW** | To prepare student on discuss the meaning of diffusion, osmosis and mass flow | KMno4, water, beaker |  |
| **STRUCTURE OF MAMMALIAN HEART** | To prepare students on discussing the structure internal and external structure of the mammalian heart | 2ND | 15 | Diagram of mammalian heart |  |
| To prepare students on types and structure of blood vessel | 3RD | Diagram of artery venin &capillaries |  |
| **TERMINAL ASSESSMENT (4TH WEEK OF MAY)**  **FIRST TERM BREAK (31/05/2024 - 01/07/2024)**  **UMISSETA SPORTS COMPETITIONS (16/06/2024 – 29/06/2024)** | | | | | | | | | |
|  | **THE BLOOD** | To prepare students discussion on components of blood, blood groups, transfusion, circulation and lymphatic system | **JULY** | 1ST | 06 |  | Chat on component of  blood | Questions  Quiz  Assignments  Exercise  Test |  |
| To prepare discussion on each blood components function | 2ND | 03 | Chart of blood, component |  |
| **TRANSPORT IN PLANTS** | To prepare discussion on components of vascular system, functions of vascular system, absorption of water and mineral salts | 3RD  TO  4TH | 06 | Tanzania Institute of Education (2021), Biology for Secondary Schools, Book two, TIE, DSM. | Chats and diagrams |  |
| **GASEOUS EXCHANGE AND RESPIRATION** | **CONCEPT OF GASEOUS EXCHANGE** | To prepare student in identifying gaseous exchange organs in different organism | **AUGUST** | 1ST | 06 | Samples of organism |  |
| **GASEOUS ECHANGE IN MAMMAL** | To prepare discussion on parts of respiratory organs | 2ND | Chart of respiratory parts | QUESTIONS  QUIZ  ASSIGNMENTS  EXERCISE  TEST |  |
| To prepare student to demonstrate inhalation & exhalation in mammal | Charts of respiratory parts |  |
| 3RD |
| To prepare class discussion on factors affecting gaseous exchange |  |  |
| **MID-TERM ASSESSMENT (4TH WEEK OF AUGUST)**  **MID-TERM BREAK (30/08/2024 - 16/09/2024)** | | | | | | | | | |
| **RESPIRATION AND GASEOUS EXCHANGE** | **RESPIRATION** | To prepare students discussion on meaning  Of respiration  To lead students on types or respiration | **SEPTEMBER** | 3RD  TO  4TH | 15 |  | Chart of respiratory process | Questions  Quiz  Assignments  Exercise  Test |  |
| **ANAEROBIC RESPIRATIOPN** | To prepare student on meaning and importance of anaerobic respiration  To lead student on products of anaerobic respiration | **OCTOBER** | 1ST  TO  2ND | Chart on respiratory process  Chart on end product |  |
| **DISORDERS OF RESPIRATORY SYSTEM** | To prepare student to identify respiratory disorder and disease  To prepare students discussion on relating respiratory disorders and HIV - AIDS | Chart of respiratory disorders  Extracts from Magazine or Journals |  |
| **PREPARATION FOR FORM TWO NATIONAL ASSESSMENT (OCTOBER 3RD WEEK TO 4TH WEEK)**  **END OF YEAR BREAK (06/12/2024)** | | | | | | | | | |