PRIMARY FOUR SCIENCE SCHEME OF WORK FOR TERM I, 2023

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| **W K** | **P D** | **TOPIC** | **TOPIC** | **CONTENT** | **SUBJ. COMP’NCES** | **LANG. COMP’NCES** | **METHODS** | **ACTIVITIES** | **IND. OF L.S.V** | **INST. MAT.** | **REF.** | **RE M.** |
| **1** | **1** | **Plant life** | **Floweri ng plants** | **Flowering plants**   * Flowering plants are plants that bear   flowers.  **Example of flowering plants**   * Maize Plants * Bean Plants * Banana Plants * Tea plants * Coffee Plant   **Characteristics of**  **flowering plants**   * Flowering plants bear flowers. * Most flowering plants reproduce   by means of seeds.  **Structure of a flowering plant**   * Stem * The root system * The terminal bud * Axillary bud * Node and   internode | The learner;   1. Defines flowering plants 2. Gives examples of flowering plants. 3. States the characteristics of flowering plants.   The learner;   1. Draws the structure of a flowering plant. 2. names the parts of a flowering plant 3. Identifies the systems of a flowering plant. 4. Draws and names parts of a flowering plant | The learner;   1. Pronounces, spells, reads writes and demonstrates meaning of words related to flowering plants   e.g. Bear, reproduce, and flower.  2. Reads, internalize and writes texts and questions related to flowering plants. | Guided discovery  Discussion | Defining flowering plants | Appreciati- on.  Care | Floweri ng plants | Mk. Int. sci. pbk 4 |  |
|  |  |  |  | observatio n | Giving examples of flowering plants  Drawing the structure of a flowering plant. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |
|  |  |  |  |  | Naming parts of a flowering plant. |  |  |  |
| **1** | **2** | **Plant life** | **Structu re of a leaf** | **Structure of a leaf** | The learner;   1. Draws the structure of a leaf. 2. Names the | The learner;   1. Pronounces, spells, reads   writes and | Guided discovery  Discussion | Drawing the structure of  a leaf | Appreciati- on.  Care | Differen t types of  leaves | Mk. Int. sci.  pbk 4 |  |

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|  |  |  |  | **Functions of parts of a leaf**  **1. Leaf stalk**  - Holds the leaf on the branch  **2. Midrib**  - Transports manufactured food  and water.  **3. Leaf blade**  - Has stomata used for breathing/  gaseous exchange | parts of a leaf.  3. Mentions the functions of each part of a leaf. | demonstrates meaning of words related to flowering plants  e.g. Bear, reproduce, and flower.  2. Reads, internalize and writes texts and questions related to flowering plants. | Observati on | Naming parts of a leaf. | Awareness  Fluency | brought in the class. | Int. sci. syllab us bk 4 |  |
|  |  | Mentioning the functions of parts of a leaf. | Concern |  |  |
| **1** | **3** | **Plant life** | **Leaf venati on** | **Leaf venation**  - Leaf venation is the arrangement  of veins in a leaf.  **Types of leaf venation**   1. Network leaf venation 2. Parallel leaf venation.   **NET WORK LEAF VENATION**   The leaf has veins made like a net.  **Illustration** | **The learner;**   1. Defines the term leaf venation. 2. Identifies the types of leaf venation. 3. Give examples of plants the network and parallel leaf venation. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to leaf venation e.g. network and parallel 2. Reads, internalize and writes texts and questions related to leaf venation. | Guided discovery  Discussion  Observati on | Defining leaf venation  Identifying types of leaf venation.  Giving examples | Appreciati- on.  Care  Awareness  Fluency  Concern | Differen t types of leaves brought in the class | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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| **1** |  |  |  |  Network venation is found in leaves of dicotyledonous plants.  **Example of plants with network leaf venation**  Bean, Hibiscus, Flower, Peas  **Parallel leaf venation**   The veins in a leaf run from the leaf stalk to the apex of the leaf in a parallel form. | The learner;   1. Defines the term leaf venation. 2. Identifies the types of leaf venation. 3. Give examples of plants the network and parallel leaf venation. |  | Guided discovery  Discussion  observatio n | of leaf venation Defining leaf venation |  |  | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
|  |  Parallel venation is found in leaves of monocotyledonous plants like;  Maize, Millet, Sugarcane, Rice, Grass and wheat  plants. |  |  |  |  |
| **1** | **4** | **Plant** | **Types** | **TYPES OF LEAVES** | **The learner** | **The learner;** | Guided | Identifying | Appreciati- | Differen | Mk. |  |

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|  |  | **life** | **of leaves** | 1. Simple leaves 2. Compound leaves   **SIMPLE LEAVES**  A simple leaf is a leaf with one leaf blade and one leaf stalk.  **Examples of simple leaves**   * + Simple serrated Simple lobed leaf   + Simple entire Simple divided   entire   * + Simple palmate   **Simple serrated** | 1. Indentifies the types of leaves. 2. Describes simple leaves. 3. Mentions examples of simple leaves. 4. Draws the different structures of simple leaves | 1. Pronounces, spells, reads writes and demonstrates meaning of words related to leaf venation e.g. network and parallel 2. Reads, internalize and writes texts and questions related to simple leaves | discovery  Discussion  observatio n | the types of leaves.  Describing simple leaves.  Mentioning examples of simple leaves. | on. Care  Awareness  Fluency  Concern | t types of leaves brought in the class | Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
|  |  | **Simple divided entire** |  |  | Drawing the structure of simple leaves |  |  |  |
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|  |  | etc. |  |  |  |  |  |  |
| **1** | **5** | **Plant life** | **Types of leaves** | **Compound leaves Types of leaves Compound leaves**   A compound leaf | **The learner**   1. Describes simple leaves. 2. Mentions | **The learner;**   1. Pronounces, spells, reads writes and demonstrates | Guided discovery | Describing comp. leaves. | Appreciati- on.  Care | Differen t types  of comp. | Mk. Int.  sci. pbk 4 |  |

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|  |  |  |  | is a leaf with many leaflets on one main leaf stalk.   The leaflets are divided at original leaf stalk.   Each leaflet has its own small stalk called ranchis  **Examples of compound leaves**   1. Compound pinnate leaf 2. Compound bipinnate leaf 3. Compound trifoliate leaf 4. Compound digitate leaf   **Illustration** | examples of simple leaves.  3. Draws the different structures of compound leaves | meaning of words related to leaf venation e.g. pinnate, bi- pinnate and trifoliate  2. Reads, internalize and writes texts and questions related to compound leaves | Discussion  observatio n | Mentioning examples of comp. leaves.  Drawing the structure of simple leaves | Awareness  Fluency  Concern | leaves brought in the class | Int. sci. syllab us bk 4 |  |

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|  | **6** | **Plant life** | **Transpi ration the rate of transpi ration.** | **TRANSPIRATION**  - Transpiration is the process by which  plants lose water in form of water vapour to the atmosphere.  **Importance of transpiration**   1. **To a plant**    1. It cools the plant.    2. It enables plants to abosorb more water from the soil.   **b) To the environment**   It helps in the formationn of rain fall.    **Factors which affect the rate of** | **The learner;**   1. Defines transpiration. 2. Gives the importance of transpiration to;    1. Plants    2. Animals. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to transpiration 2. Reads, internalize and writes texts and questions related to transpiration. | Guided discovery  Discussion  observatio n | Defining transpiratio n.  Giving the importanc e of transpiratio n to plants and the environme nt. | Appreciati- on.  Care  Awareness  Fluency  Concern | The local environ ment | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | **transpiration**   1. Temperature 2. Light intensity 3. Humidity 4. Wind 5. Surface area of a leaf |  |  |  |  |  |  |  |  |
| 1 | **7** | **Plant life** | **Ways plants reduce the rate of transpi ration.** | **Ways in which plants reduce the rate of transpiration**   By shedding their leaves in the dry season to reduce the rate of transpiration.   Some plants develop a layer of wax on their leaves.   Some plants reduce the size of their leaves to thorny structures.   Some plants develop thick leaves to store water for the dry season.   Some plants modify their leaves into thorns e.g. cactus plants.  **Dangers of** | **The learner**   1. Mentions ways in which plants reduce the rate of transpiration. 2. State the dangers of transpiration. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to transpiration 2. Reads, internalize and writes texts and questions related to transpiration | Guided discovery  Discussion  observatio n | Defining transpiratio n.  Giving the importanc e of transpiratio n to plants and the environme nt. | Appreciati- on.  Care  Awareness  Fluency  Concern | The local environ ment | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | **transpiration**   Excess transpiration leads to wilting of plants. |  |  |  |  |  |  |  |  |
| 2 | **1** | **Plant life** |  | **PHOTOSYNTHESIS**   Photosynthesis is the process by which plants make their own food.  **Requirements for photosynthesis**   1. Water 2. Carbon diuoxide 3. Sunlight 4. Chlorophyll   **The raw materials for photosynthesis**   1. water 2. carbon dioxide. **Conditions necessary for Photosynthesis** 3. Chlorophyll 4. Sunlight 5. **Importance of photosynthesi to people** 6. Due to photosynthesis, people get food. 7. People get oygen for respiration due to | **The learner;**   1. Defines the term photosynthesis. 2. Mentions the requirements for photosynthesis. 3. Describes the conditions, raw materials, product and by product for photosynthesis. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to photosynthesis e.g. chlorophyll, sunlight & water. 2. Reads, internalize and writes texts and questions related to Photosynthesis | Guided discovery  Discussion  Observati on  Brain storming  Think pair and share | Defining photosynth esis.  Mentioning the requireme nts for photosynth esis.  Describing the conditions, raw product and bi products of photosynth esis. | Appreciati- on.  Care  Awareness  Fluency  Concern | The local environ ment | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | photosynthesis. |  |  |  |  |  |  |  |  |
| **2** | **2** | **Plant life** | **Uses of leaves** | **Functions (uses) of leaves to plants**   Leaves make food for the plant.   Leaves help a plant to carry out transpiration.   Some leaves store food and water for the plant e.g. onions   Some leaves are used for plant propagation e.g. bryophyllum  **Uses of leaves to people**   Some leaves are eaten as food  e.g. Amaranthus.   Some leaves are used as herbal medicine.   Some leaves are used to thatch houses.   Plant leaves are used for researech and study purposes. | **The learner**   1. Gives the uses of leaves to people. 2. Mentions the importance of leaves to plants. | **The learner**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to uses of leaves. 2. Reads, internalize and writes texts and questions related to uses of leave | Guided discovery  Discussion  Observati on  Brain storming | Giving the uses of leaves to people.  Mentioning the uses of leaves to plants. | Appreciati- on  Care  Awareness  Fluency  Concern | The local environ ment | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **2** | **3** | **Plant** | **roots** | **Root system** | **The learner;** | **The learner** | Guided | Naming | Appreciati- | Grass | Mk. |  |

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|  |  | **life** |  | **ROOTS**   A true root system develops from the radicle of the embryo.  **Types of root system**   1. Tap root system 2. Fibrous root system    1. **Tap root system**      * + 1. **Root hairs:** absorb water and mineral salts from the soil.     2. **Root cap:** Protects the growing tip of a root.   **Examples of plants with tap root system**  Mangoes, beans,  **b) Fibrous root system**   This is the type of root system where there are many roots growing  randomly from | 1. Names the systems of roots. 2. Draws a well labelled structure of a tap root and fibrous root systems. | 1. Pronounces, spells, reads writes and demonstrates meaning of words related to root systems. 2. Reads, internalize and writes texts and questions related to root systems. | discovery  Discussion  Observati on  Brain storming | types of root systems.  Drawing a well labelled structure of root systems. | on. Care  Awareness  Fluency  Concern | carrots | Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | the radicle of a seed  **Illustration** |  |  |  |  |  |  |  |  |
| **2** | **4** | **Plant life** | **Types of root** | **TYPES OF ROOTS**   1. Primary roots 2. Secondary roots    1. **Primary roots**    These are roots that develop from the radicle of a germinating seed.  **Examples of primary roots**   * + 1. Tap roots     2. Fibrous roots  * 1. **Secondary roots (adventitious roots)** | **The learner;**   1. Identifies the types of roots. 2. Describes primary and secondary roots. 3. Mentions examples of primary and secondary roots. 4. Draws the structure of a prop root. | **The learner**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to types of roots 2. Reads, internalize and writes texts and questions related to types of roots. | Guided discovery  Discussion  Observati on  Brain storming | Identifying the types of roots.  Describing primary and secondary roots.  Mentioning examples of primary and secondary roots. | Appreciati- on.  Care  Awareness  Fluency  Concern | Cassav a tubers, sweet potato tubers, carrots | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  |  These are roots that develop from any other part of the plant other than the radicle.  **Examples of adventitious roots**   1. Prop root 2. Stilt roots 3. Buttress roots 4. Storage roots 5. Clasping roots 6. Breathing roots |  |  |  |  |  |  |  |  |
| **2** | **5** | **Plant life** | **Uses of roots** | **USES OF ROOTS TO PLANTS**   Roots fix the plant firmly in to the soil.   They absorb water from the soil.   Some roots store food for the plant.  **Uses of roots to man**   * Some roots act as food. * Some roots are used as   herbal medicine.   * Some roots | **The learner;**  1. states the uses of roots the plant, man and the soil/ environment  **The learner;**   1. states the uses of roots the plant, man and the soil/ environment | **The learner**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to uses of roots 2. Reads, internalize and writes texts and questions related to uses of roots**.** | Guided discovery  Discussion  Observati on  Brain storming | Stating the uses of roots to plants, people and soil. | Appreciati- on.  Care  Awareness  Fluency  Concern | Cassav a tubers, sweet potato tubers, carrots. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | provide fire wood to people when dry.   * Some roots are sold for   money.  **Uses of roots to man**   * Roots hold the soil particles   together hence controlling soil erosion. |  |  |  |  |  |  |  |  |
| **2** | **6** | **Plant life** | **Stems** | **Stems**  **Types Of Stems**   1. Upright or erect stems 2. Underground stems 3. Weak stems. 4. **Upright Or Erect stems.**    * They grow straight in space   e.g. woody plants,  **2. Underground or storage stems**   These are stems | **The learner;**   1. Names the types of stems 2. Gives the examples of the different types of stems. 3. Describes the categories of underground stems. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to stems. 2. Reads, internalize and writes texts and questions related to stems | Guided discovery  Discussion  Observati on  Brain | Naming the types of stems.  Giving examples of the different types of stems.  Describing the  different | Appreciati- on.  Care  Awareness  Fluency  Concern | Differen t types of stems availed in class. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | which grow underground and store food  e.g. Stem tubers, Bulbs & Rhizomes  **Characteristics of underground STEMS**   They have scale leaves.  **Categories of underground stems**   1. **Stem tubers e.g.** white yams and Irish potatoes. 2. **Corms** e.g. cocoyam, crocus and gladiolus. 3. **Bulbs** e.g. onions, garlic and Spider lily 4. **Rhizomes** e.g. ginger, turmeric, cannalilly and grass such as coach grass. |  |  | storming | categories of undergrou nd stems. |  |  |  |  |
| **2** | **7** | **Plant life** | **Stems** | **Weak stems**   These are weak stems which | **The learner;**  1. Describes weak stems. | **The learner;**  1. Pronounces, spells, reads writes | Guided discovery | Describing plants with weak | Appreciati- on. | Differen t types of | Mk. Int. sci. |  |

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|  |  |  |  | cannot support themselves upright.   To get enough sunlight.  **Groups of weak stems**  1. Climbing stems  e.g. passion fruits,  2. Creeping stems **How weak stems climb others**   1. **By using tendrils**    The lateral bud of a plant or the leaf tip develops into a tendril.  **Examples of plants which use tendrils** Passion fruits, gourds, cowpeas, pumpkins, cucumber   1. **B y using hooks**    Some plants have downward pointing thorns.   1. **By twining or clasping**.    Plants clasp their stems around a support. | 1. Gives examples of weak stems. 2. Mentions ways plants with weak stems use to climb others. | and demonstrates meaning of words related to stems  e.g. erect, weak stems and underground stems.  2. Reads, internalize and writes texts and questions related to stems. | Discussion  Observati on  Brain storming | stems.  Giving examples of plants with weak stems.  Mentioning ways used by weak stems to climb others. | Care  Awareness  Fluency  Concern | stems availed in class. | pbk 4  Int. sci. syllab us bk 4 |  |

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| **3** | **1** | **Plant life** | **Functio ns of stems** | **FUNCTIONS OF A STEM TO A PLANT**   1. They hold the leaves on a plant. 2. They hold the flowers for proper pollination.   **USES OF STEMS TO ANIMALS**   1. Most stems are used for timber and firewood. 2. Some stems are used as herbal medicines. 3. Stems are used as food for animals. 4. People use stems as firewood. | **The learner;**   1. gives the uses of stems to ;    1. plants    2. people    3. animals | **The learner;**  1. Pronounces, spells, reads writes and demonstrates meaning of words related to stems  e.g. erect, weak stems and underground stems.  2. Reads, internalize and writes texts and questions related to functions of stems | Guided discovery  Discussion  Observati on  Brain storming | Giving the uses of stems to plants, people and animals.. | Appreciati- on.  Care  Awareness  Fluency  Concern | Weak stems collect ed from the environ ment. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **3** | **2** | **Plant life** | **flowers** | **FLOWERS**   A flower is a reproductive part of a flowering plant.  **The external** | **The learner;**   1. Defines a flower. 2. Draws the internal parts of a flower. 3. Name parts of | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to parts of   a flower. | Guided discovery  Discussion | Defining a flower.  Drawing  and labeling | Appreciati- on.  Care | Flowers from the environ ment. | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **structure of a flower**   * Sepals * petals   **The internal**  **structure of a flower**   * pistil * stamen   **a) Pistil**    **b). The Stamen**   The stamen is the male part of a flower.  **Illustration** | a flower. | 2. Reads, internalize and writes texts and questions related to parts of a flower. | Observati on  Brain storming | the parts of a flower. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **3** | **3** | **Plant life** | **Functio ns of parts of a** | **FUNCTIONS OF EACH PART**  **i) Petals**   Petals are | **The learner;**  1. States the function of each part of a flower. | **The learner;**  1. Pronounces, spells, reads writes and demonstrates | Guided discovery | Sating the function of each part of a flower. | Appreciati- on.  Care | The environ ment.. | Mk. Int. sci. pbk 4 |  |

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|  |  |  | **flower** | brightly coloured to attract pollinators  **Pistil or Carpel**   The pistil is the female part of a flower   It is made up of three main parts; namely  Ovary, Stigma and Style  **USES OF FLOWERS TO PEOPLE**   Flowers are used to get insecticides.   They are used for decoration on various functions.   They are used to get dye.   Flowers are used to make perfumes. |  | meaning of words related to parts of a flower.  2. Reads, internalize and writes texts and questions related to parts of a flower. | Discussion  Observati on  Brain storming |  | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **3** | **4** | **Plant life** | **Pollinat ion** | **POLLINATION**   Pollination is the | **The learner**  1. Defines | **The learner;**  1. Pronounces, | Guided discovery | Defining pollination. | Appreciati- on. | Flowers from | Mk. Int. |  |

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|  |  |  |  | transfer of pollen grains from the anthers to the stigma.  **TYPES OF POLLINATION**   1. Self-pollination 2. Cross pollination   **Self-pollination**   This is the transfer of pollen grains from the anthers of a flower to the stigma of the same flower or another flower on the same plant.  **Illustration**    **HOW THE FLOWER IS ADAPTED (SUITED) FOR SELF POLLINATION**   The anthers and stigma mature at the same time e.g. the conifers.   The flower remains | pollination.  2. Names and describes the types of pollination.  3. States the adaptation of some flowers to self pollination. | spells, reads writes and demonstrates meaning of words related to pollination.  2. Reads, internalize and writes texts and questions related to pollination. | Discussion  Observati on  Brain storming | Naming the types of pollination.  Describing self pollination.  Stating the adaptation of some flowers to self pollination. | Care  Awareness  Fluency  Concern | the environ ment.  A chart showin g an illustrati on of self pollinati on. | sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | closed until self- pollination has taken place e.g. the conifers |  |  |  |  |  |  |  |  |
| **3** | **5** | **Plant life** | **Cross pollina tion** | **Cross pollination**   This is the transfer of pollen grains from the anthers of a flower to the stigma of another flower on another plant of the same species.  **Illustration**    **HOW THE FLOWER IS ADOPTED (SUITED) FOR CROSS POLLINATION**   The male and female flowers occur on the same plant e.g. in maize   The male and | **The learner;**   1. Describes cross pollination. 2. States the adaptation f some flowers to cross pollination. 3. Identifies the agents of pollination. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to cross pollination. 2. Reads, internalize and writes texts and questions related to cross pollination. | Guided discovery  Discussion  Observati on  Brain storming | Describing cross pollination.  Stating the adaptation of some flowers to cross pollination.  Identifying the agents of pollination. | Appreciati- on.  Care  Awareness  Fluency  Concern | Flowers from the environ ment.  A chart showin g cross pollinati on | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | female flowers occur on separate plants e.g. in papaws.  **AGENTS OF POLLINATION**   Agents of pollination are things responsible for the transfer of pollen grains to the stigma.  **Agents of pollination**   1. Insects 2. wind 3. water 4. Animals e.g. bats 5. Birds |  |  |  |  |  |  |  |  |
| **3** | **6** | **Plant life** | **CCCs**  **of insect/ wind pollina ted flowers** | **CHARACTERISTICS OF INSECT POLLINATED FLOWERS**   They are scented flowers.   They produce less sticky pollen.   They are have brightly coloured petals.   **CHARACTERISTIC S OF WIND POLLINATED** | **The learner;**   1. Mentions the **CCCs** of wind and insect pollinated flowers. 2. States the importance of pollination. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to pollination. 2. Reads, internalize and writes texts and questions related to pollination. | Guided discovery  Discussion  Observati on | Mentioning the CCCs of wind and insect pollinated flowers.  Stating the importanc e of pollination. | Appreciati- on.  Care  Awareness  Fluency  Concern | Flowers from the environ ment.  A chart showin g cross pollinati on | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | **FLOWERS.**   The petals have dull colours.   The flowers do not produce nectar.   They produce a lot of pollen grains.  **IMPORTANCE OF POLLINATION**   Pollination allows fertilization to take place in farmers’ crops.   Pollination allows high yield in farmers’  harvest. |  |  | Brain storming | Identifying the agents of pollination. |  |  |  |  |
| **3** | **7** | **Plant life** | **SEEDS** | **SEEDS**  A seed is a fertilized mature ovule.  **Classification of seeds**   1. Monocotyled onous seeds 2. Dicotyledono us seeds   **Monocotyledonous** | **The learner;**   1. Defines a seed. 2. Mentions types of seeds. 3. Describes monocotyledon ous seeds. 4. States the CCCs of   monocots with relevant | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to seeds like dicot and monocots. 2. Reads, internalize and writes texts and | Guided discovery  Discussion | Defining a seed.  Mentioning the types of seeds.  Describing monocotyl | Appreciati- on.  Care  Awareness  Fluency | Differen t grains such as maize, millet, sorghu m. | Mk. Int. sci. pbk 4  Int. sci. |  |

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|  |  |  |  |  Monocotyledon ous seeds are seeds that have one cotyledon.  **Examples of monocotyledonous seeds**   1. maize 2. millet 3. sorghum 4. barley 5. rice   **A structure of maize grain** | examples. | questions related to seeds | Observati on  Brain storming | edonous seeds.  Stating the CCCs of Monocots with relevant examples. | Concern |  | syllab us bk 4 |  |
| **4** | **1** | **Plant life** | **Dicotyl edono us** | **Dicotyledonous seeds**   These are seeds that have two cotyledons.  **Examples include**   1. beans 2. peas 3. soya 4. Ground nuts **A structure of a bean seed**   **Functions of each part** | **The learner;**   1. Describes dicotyledonous seeds. 2. Gives examples of dicotyledonous seeds. 3. States the CCC of dicotyledonous seeds. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to dicotyledonous seeds. 2. Reads, internalize and writes texts and questions related to dicotyledonous seeds. | Guided discovery  Discussion  Observati on | Describing dicotyledo nous seeds.  Giving examples of dicotyledo nous seeds.  Stating the  **CCCs** of | Appreciati- on.  Care  Awareness  Fluency  Concern | Bean seeds, soya or ground nut seeds. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | 1. **Plumule** – develops into shoot system 2. **Radicle** – develops into root system 3. **Testa**– protects the internal parts from damage. 4. **Cotyledon-** It stores food for the seed. 5. **Endosperm** stores food for the embryo |  |  | Brain storming | dicotyledo nous seeds |  |  |  |  |
| **4** | **2** | **Plant life** | **Seed Germi nation** | **Seed Germination**   Germination is the development of a seed embryo into a young plant.   A seedling is a young plant  **Condition for germination Water**   * Softens the testa for the radicle to   come out.  **Warmth**   * + for respiration   **Oxygen**   * + provides the right temperature | **The learner;**   1. Defines the term germination. 2. Mentions the conditions for seed germination. 3. Describes the importance of each condition necessary for seed germination. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to seed germination 2. Reads, internalize and writes texts and questions related to Seed germination. | Guided discovery  Discussion  Observati on  Brain | Defining the term germinatio n.  Mentioning the conditions for seed germinatio n.  Describing the | Appreciati- on.  Care  Awareness  Fluency  Concern | Germin ating seeds.  A chart showin g seed germin ation. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | for the germinating seed.  **Steps under gone by a seed during germination**   The seed absorbs water through the micropyle and swells.   Testa softens swells and opens for the radicle to pass out.   The radicle comes out of the seed to form the root system.   The Plumule comes out to grow into the shoot system. |  |  | storming | importanc e of each condition of seed germinatio n. |  |  |  |  |
| **4** | **3** | **Plant life** | **Types of germin ation** | **Types of germination**   * Epigeal germination * Hypogeal germination   **Epigeal germination**   * This is the type in which the   cotyledon comes out of the ground.  **A bean seed** | **The learner;**   1. The learner identifies the types of germination. 2. Describes each type of germination. 3. Illustrates to show the two types of germination. 4. Mentions | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to seed germination 2. Reads, internalize and writes texts and questions related to Seed   germination. | Guided discovery  Discussion  Observati | Identifying the types of seed germinatio n.  Describing epigeal germinatio n. | Appreciati- on.  Care  Awareness  Fluency | A chart showin g seed germin ation. | Mk. Int. sci. pbk 4  Int. sci. syllab  us bk |  |

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|  |  |  |  | **Examples of seeds that undergo epigeal germination**  Beans Ground nuts **Hypogeal germination**  - This is type of germinations in  which a cotyledon remains under ground.  **Illustration**  **Examples of seeds that undergo hypogeal germination** Maize  Rice | examples of seeds that undergo each type of germination. |  | on  Brain storming | Illustrating the types of seed germinatio n.  Mentioning examples of seeds that undergo each type of seed germinatio n. | Concern |  | 4 |  |
| **4** | **4** | **Plant life** | **Seed viabilit y and seed dorma ncy** | **Seed viability and seed dormancy**  - Seed viability is the ability of a seed to  germinate given the necessary conditions.  **Characteristics of** | **The learner;**   1. Defines seed viability. 2. States the **CCCs** of a viable seed. 3. Gives the meaning of | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words seed viability and   seed dormancy germination | Guided discovery  Discussion | Defining seed viability.  Stating the  **CCCs** of a viable | Appreciati- on.  Care  Awareness | A chart showin g an experim ent on seed  viability seed vi | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **seed viability**   They should be mature.   They should be free from pest damage.  **Factors that make a seed fail to germinate**   When the seed has holes.   When the embryo is not mature.  **Experiment on seed viability** | seed dormancy.  4. States the factors that may make a seed fail to germinate under normal conditions. | 2. Reads, internalize and writes texts and questions related to seed viability and seed dormancy | Observati on  Brain storming | seed.  Giving the meaning of seed dormancy.  Stating the factors that may make a seed fail to germinate. | Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **4** | **5** | **Plant life** | **Uses of plants** | **Uses of plants to people**   Some plants are sources of food.   Some plants are used as herbal medicine.   Coniferous plants are used for decorating live fences.   Plants provide firewood and charcoal.   Some plants | **The learner;**   1. state the uses of plants to people | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related seed viability and seed dormancy germination 2. Reads, internalize and writes texts and questions related to seed viability   and seed | Guided discovery  Discussion  Observati on | Stating the uses of plants to people.. | Appreciati- on.  Care  Awareness  Fluency  Concern | Environ ment | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | provide hard wood for timbers.   Plants provide oxygen to animals.  **Uses of plants to animals**   Some plants provide food to animals.   Plants provide shelter to some animals.   Plants provide animals with oxygen for respiration.  **Importance of plants to the environment**   Plants help in the formation of rainfall.   Plants help to purify air by absorbing carbon dioxide. |  | dormancy | Brain storming |  |  |  |  |  |
| **4** | **6** | **Growi ng crops** | **crops** | A crop is a plant that is grown and cared for a particular purpose.  **Groups of crops (categories of** | **The learner;**   1. Names the examples of common crops. 2. Identifies the | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words   related to crops. | Guided discovery | Naming examples of crops.  Identifying | Appreciati- on.  Care | Environ ment | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **crops)**   1. Annual crops 2. perennial crops   **a) Annual crops**: These are crops which mature and harvested within one year.  **Examples of annual crops**  Sun flower sorghum Beans Peas maize  Ground nuts  **Perennial crops:** These are crops that are harvested year after year.  **Examples of perennial crops**  Coffee crop tea crop  banana crop. | groups of crops.  3. Mention examples of crops under each group. | 2. Reads, internalize and writes texts and questions related to crops. | Discussion  Observati on  Brain storming | the groups of crops.  Mentioning examples of crops under each group. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **4** | **7** | **Crop growin g** | **Garde n tools** | **Garden tools Examples of garden tools.**   * Hoe * Spade * Axe * Rake | **The learner;**  1. mentions the common tools  Draws their structures and states their uses. | **The learner;**  1. Pronounces, spells, reads writes and demonstrates meaning of words related to garden  tools | Guided discovery  Discussion | Mentioning the common tools.  Drawing | Appreciati- on.  Care  Awareness | Illustrati ons of differen t garden tools. | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | * Wheel barrow * Watering can * Slasher   **Their structure and**  **uses.** |  | 2. Reads, internalize and writes texts and questions related to garden tools. | Observati on  Brain storming | the structure of different garden tools.  Stating the uses of different  garden tools. | Fluency  Concern | Where possible  , real garden tools brought to class. | Int. sci. syllab us bk 4 |  |
| **5** | **1** | **Crop growin g** | **More garde n tools** | **More Garden tools Examples of garden tools.**   * Forked hoe * Watering can * Trowel * Garden fork * Pick axe   **Their structure and**  **uses.** | **The learner;**   1. mentions the common tools 2. Draws their structures and states their uses. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to garden tools 2. Reads, internalize and writes texts and questions related to garden tools. | Guided discovery  Discussion  Observati on  Brain storming | Mentioning the common tools.  Drawing the structure of different garden tools.  Stating the uses of different  garden tools. | Appreciati- on.  Care  Awareness  Fluency  Concern | Illustrati ons of differen t garden tools.  Where possible  , real garden tools brought to class. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **5** | **2** | **Crop growin** | **More garde** | **More Garden tools Examples of garden** | **The learner;**   1. mentions the | **The learner;**   1. Pronounces, | Guided discovery | Mentioning the | Appreciati- on. | Illustrati ons of | Mk. Int. |  |

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|  |  | **g** | **n tools** | **tools.**   * More garden tools * Secateur * Pruning saw * Knives * Sickle   **Their structure and**  **uses.** | common tools  2. Draws their structures and states their uses. | spells, reads writes and demonstrates meaning of words related to garden tools  2. Reads, internalize and writes texts and questions related to garden tools. | Discussion  Observati on  Brain storming | common tools.  Drawing the structure of different garden tools.  Stating the uses of different garden  tools. | Care  Awareness  Fluency  Concern | differen t garden tools.  Where possible  , real garden tools brought to class. | sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **5** | **3** | **Crop growin g** | **Caring for garde n tools** | **Caring for garden tools**   By cleaning them after use.   By keeping them in a cool dry place.   By using the tools for their rightful purposes.  **Rusting**   Rusting is a process by which iron combines with oxygen and  moisture to form | **The learner;**   1. Mentions ways of caring for garden tools. 2. Describes the conditions for rusting. 3. Identifies the ways of preventing rusting. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to care for garden tools 2. Reads, internalize and writes texts and questions related to care for garden tools. | Guided discovery  Discussion  Observati on | Mentioning the common tools.  Drawing the structure of different garden tools.  Stating the uses of | Appreciati- on.  Care  Awareness  Fluency  Concern | Lubricat ing oil and grease brought to class. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | a brown coloured substance called rust.  **Conditions that favour rusting to take place**   1. Oxygen 2. Moisture   **Dangers of rusting on metals**   1. Rusting makes tools weak and worn out. 2. Rusting makes some tools blunts thus leading to wearing due to increased friction.   **Control of rusting**   By painting metallic garden tools.   By keeping tools in cool dry places.   By oiling or greasing some tools. |  |  | Brain storming | different garden tools. |  |  |  |  |
| **5** | **4** | **Crop growin g** | **Crop Growin g**  **Practic** | **Crop Growing Practices**  Crop growing practices are | **The learner,**   1. Mentions the crop growing   practices. | **The learner;**   1. Pronounces, spells, reads writes   and demonstrates | Guided discovery | Mentioning the crop growing  practices. | Appreciati- on.  Care | The environ ment | Mk. Int. sci.  pbk 4 |  |

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|  |  |  | **es** | activities involved in the production of food e.g.   1. Land preparation 2. Selecting seeds for planting 3. Planting or sawing 4. Transplanting   **Land preparation**  - This is the first stage in a food  path usually done in the dry season.  **Activities involved during land preparation**   Cutting down trees using an axe or panga.   Controlled bush burning.  **Ploughing land**   It is done using a tractor, ox- plough, hoes, and forked hoe.   Ploughing the land is done to make the soil  loose and soft | 2. Describes land preparation.  3. States the different activities done during land preparation. | meaning of words related to crop growing practices.  2. Reads, internalize and writes texts and questions related to crop growing practices. | Discussion  Observati on  Brain storming | Describing land preparatio n  Stating the different activities done during land prparation | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **5** | **5** | **Crop growin** |  | **Planting**   This refers to | **The learner;**  **1.** Describe the | **The learner;**  1. Pronounces, | Guided discovery | Describing the term | Appreciati- on. | The school | Mk. Int. |  |

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|  |  | **g** |  | putting seeds in holes and covering with soil.  **Example of planting materials**  - Seeds, suckers, stem cuttings, bulbs  **Qualities of good planting materials**   They should be mature and healthy.   The seeds should not be broken.   They should be of desired characteristics.  **Methods of planting**  1. **Row planting.** This is the planting of seeds or crops in lines. | term planting.  2. Mentions examples of planting materials.  3. Identifies the methods of planting. | spells, reads writes and demonstrates meaning of words related to planting  2. Reads, internalize and writes texts and questions related to planting. | Discussion  Observati on  Brain storming | planting  Mentioning examples of planting materials.  Identifies the methods of planting. | Care  Awareness  Fluency  Concern | dem. Garden  . | sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **5** | **6** | **Crop growin g** | **Advan tages of raw plantin**  **g** | **Advantages of raw planting method**   It makes weeding easy.   It controls easy | **The learner;**  1. States the advantages and  disadvantages | **The learner;**  1. Pronounces, spells, reads writes and demonstrates  meaning of words | Guided discovery | Stating the advantage and disadvanta  ges of row | Appreciati- on.  Care | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  | **metho d** | spread of diseases and pests.   It makes harvesting easy.   It prevents wastage of seeds and other planting materials.   It allows proper spacing of crops.  **Disadvantages of raw planting**   It needs a lot of labour.   It is allows proper spacing of crops.  **Examples of crops planted by raw planting**   1. Maize 2. Pineapples 3. Beans 4. Potatoes 5. Cassava | of raw planting.  2. Mentions examples of crops that can be planted in rows. | related to row planting  2. Reads, internalize and writes texts and questions related to row planting | Discussion  Observati on  Brain storming | planting.  Mentioning examples of crops that can be planted in rows. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **5** | **7** | **Crop growin g** | **Broad castin g** | **Broadcasting**  - This is the planting of seeds  by throwing them using the hand in a garden. | **The learner;**   1. The learner describes broadcasting method. 2. States the advantages | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to   broadcasting | Guided discovery  Discussion | Describing the advantage and disadvanta  ges of broadcasti | Appreciati- on.  Care  Awareness | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **Illustration**    **Crops planted by broadcasting method**   1. Simsim 2. Millet   **Advantages of broadcasting method**   It saves time.   It does not need a lot of labour.  **Disadvantages of broadcasting method**   It can lead to easy spread of diseases.   Many tines, crops do not yield as  expected. | and disadvantages of broadcasting method.  3. Names the examples of crops that can be planted by broadcasting. | method.  2. Reads, internalize and writes texts and questions related to broadcasting method. | Observati on  Brain storming | ng method.  Stating the advantage and disadvanta ges of broadcasti ng method.  Naming examples crops that can be broadcast ed. | Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **6** | **1** | **Crop growin g** | **A**  **nursery bed** | **A nursery bed**  A nursery bed is a place where seedlings are  raised. | 1. Defines a nursery bed. 2. Mentions   examples of crops that can | **The learner;**   1. Pronounces, spells, reads writes and demonstrates   meaning of words | Guided discovery | Defining a nursery bed. | Appreciati- on.  Care | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **Crops that can be raised on a nursery bed**  Coffee, onions  **Structure of a nursery bed**  **Importance of a nursery bed**   It protects seedlings from too much direct sunshine.   It protects seedlings from too much wind and rainfall.  **Transplanting**   Transplanting is the transfer of seedlings from a nursery bed to the main garden.   Transplanting is best done in the evening because there is little loss of water through  transpiration. | be grown on a nursery bed.  3. States the importance of a nursery bed to the seedlings and the farmer. | related to a nursery bed.  2. Reads, internalize and writes texts and questions related to a nursery bed. | Discussion  Observati on  Brain storming | Mentioning examples of crops that can be raised on a nursery bed.  States the importanc e of a nursery bed. | Awareness  Fluency  Concern | A chart showin g  A  nursery bed. | Int. sci. syllab us bk 4 |  |
| **6** | **2** | **Crop growin g** | **Ways of caring** | **Ways of caring for plants**  Weeding | **The learner;**  1. Mentions the different ways of | **The learner;**  1. Pronounces, spells, reads writes | Guided discovery | Mentioning different ways of | Appreciati- on. | The school dem. | Mk. Int. sci. |  |

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|  |  |  | **for plants** | Staking Spraying Pruning Thinning **Staking**   Staking is the giving of extra support to the plants with stems.   Staking can be done on tomatoes.    **Examples of crops that can be staked**   1. Coffee 2. Tomatoes | caring for crops.  2. Describes the meaning of staking and propping,  4. Names examples of crops that can be staked or propped. | and demonstrates meaning of words related caring for crops.  2. Reads, internalize and writes texts and questions related to care for crops. | Discussion  Observati on  Brain storming | caring for crops.  Describing the meaning of staking.  Naming examples of crops that can be staked. | Care  Awareness  Fluency  Concern | Garden  .  A chart showin g  A  nursery bed. | pbk 4  Int. sci. syllab us bk 4 |  |
| **6** | **3** | **Crop growin g** | **Weedi ng** | **Weeding**  a) Weeding is the removal of plants from an area where they are  not wanted. | **The learner;**   1. Defines weeding. 2. Mentions examples of   weeds. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words   related to | Guided discovery | Mentioning different ways of caring for crops. | Appreciati- on.  Care | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **Examples of weeds**   * nut grass * couch grass   **Dangers of weeds**   * They compete with crops for water   and mineral salts   * Weeds are hiding places for crop   pests.  **Uses of weeds**   For feeding some farm animals   For thatching houses  **Ways of controlling weeds.**   By uprooting and burning them   By mulching  **Gap filling**   Gap filling is the planting of seeds or seedlings in places where  they did not germinate. | 3. Identifies garden tools used foe weeding.  4. Mentions dangers of weeds. | weeding.  2. Reads, internalize and writes texts and questions related to weeding | Discussion  Observati on  Brain storming | Describing the meaning of staking.  Naming examples of crops that can be staked. | Awareness  Fluency  Concern | A chart showin g  A  weedin g tool. | Int. sci. syllab us bk 4 |  |
| **6** | **4** | **Crop growin g** | **Thinnin g and prunin g** | **Thinning and**   Thinning is the removal of excess seedlings in the garden.  **Advantages of** | **The learner;**   1. Defines thinning and pruning. 2. States the advantages of   thinning and | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words   related to thinning | Guided discovery | Mentioning different ways of caring for crops. | Appreciati- on.  Care | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | **thinning crops**   It creates space for crops to grow   It makes weeding easy  **Commonly thinned crops**   1. Cotton 2. Sunflower   **Pruning**   Pruning is the removal of unwanted parts of a plant.  **Garden tools used for pruning**   1. secateurs 2. pruning saw   **Reasons why crop farmers prune their crops**   To remove hiding places for crop pest  **Plants which are pruned include**   1. orange plant 2. banana plant | pruning. | and pruning  2. Reads, internalize and writes texts and questions related to thinning and pruning | Discussion  Observati on  Brain storming | Describing the meaning of staking.  Naming examples of crops that can be staked. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |
| **6** | **5** | **Crop growin g** | **Mulchi ng** | **Mulching**  Mulching is the covering of top soil with dry plant  materials in the | **The learner;**   1. Defines mulching. 2. States the advantages | **The learner;**   1. Pronounces, spells, reads writes and demonstrates   meaning of words | Guided discovery | Defining mulching.  Stating the advantage | Appreciati- on.  Care | The school dem. Garden  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | garden.  **Examples of mulches** Dry banana leaves **Advantages of**  **mulching**   Mulching keeps moisture in the soil   Mulching controls soil erosion  **Disadvantages of mulching**   Mulches can easily catch fire and burn crops.   Mulches are hiding places for crop pests e.g. rats.  **Manuring**   Manuring is the putting of fertilizers in soil to make it more fertile.   Or manuring is the act of adding fertilizers into the soil.  **Importance of manure**  1. Manure makes the soli more  fertile. | and disadvantages of mulches.  3. Describes manuring.  4. States the importance of manuring. | related to mulching and manuring  2. Reads, internalize and writes texts and questions related to mulching and manuring. | Discussion  Observati on  Brain storming | and disadvanta ges of mulching.  Describing manure.  Stating the importanc e of manuring. | Awareness  Fluency  Concern |  | Int. sci. syllab us bk 4 |  |

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|  |  |  |  | 2. Manure improves on the expected crop yields. |  |  |  |  |  |  |  |  |
| **6** | **7** | **Crop growin g** | **CROP HARVE STING** | **CROP HARVESTING**   Harvesting is the collection of mature crops from the garden  **Methods of crop harvesting**   By uprooting using hands e.g. soya beans, beans, ground nuts  **Storage**   This is the keeping of surplus food safely after harvesting   Seeds and cereals after sun drying them, should be stored properly  **A storage facility (granary)**  rat guards prevent rats from entering | **The learner;**   1. Defines harvesting. 2. Mentions garden tools for harvesting different crops. 3. Identifies ways   /methods of harvesting | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to harvesting. 2. Reads, internalize and writes texts and questions related to care for crops. | Guided discovery  Discussion  Observati on  Brain storming | Defining the term harvesting.  Mentioning garden tools for harvesting.  Identifying ways/ methods of harvesting | Appreciati- on.  Care  Awareness  Fluency  Concern | The school dem. Garden  . | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | into the granary  **Reasons for storing food**   To prevent wastage of food   To sell it when there is good market  **Conditions for proper storage of food**   The seeds or grains should be stored when they  are dry |  |  |  |  |  |  |  |  |
| **7** | **1** | **Crop growin g** |  | **Record keeping**   This is a practice where a farmer writes down all the activities done on the farm.   Farm records are written information about various activities carried out on a farm.  **Types of farm records**   production records   inventory records  **Reasons why crop** | **The learner;**   1. Defines record keeping. 2. States the common records kept on a crop farmer. 3. Gives the importance of keeping records. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to record keeping. 2. Reads, internalize and writes texts and questions related to record keeping. | Guided discovery  Discussion  Observati on  Brain | Defining the term harvesting.  Mentioning garden tools for harvesting.  Identifying ways/ methods of harvesting | Appreciati- on.  Care  Awareness  Fluency  Concern | The school dem. Garden  . | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | **farmers keep records**   They enable a crop farmer to calculate profits and losses   They enable a crop farmer to  plan for his farm |  |  | storming |  |  |  |  |  |
| **7** | **2** | **Crop growin g** | **Crop pests** | **Crop pests**  A crop pest is a living organism which destroys crops.  They include: animals, birds, and insects.  **Dangers of crop pests**  They reduce crop yields  They lower the quality of crop yields  **Signs of pest damage on crops**  Some leaves are partly eaten up or have holes  Fruits develop dark spots  Cut off buds  Seeds with holes | **The learner;**   1. Defines crop pests. 2. States the Dangers of crop pests. 3. Mentions signs of crop pests in the garden | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to crop pests. 2. Reads, internalize and writes texts and questions related to crop pests. | Guided discovery  Discussion  Observati on  Brain storming | Defining crop pests.  Stating the dangers of crop pests.  Mentioning signs of crop pests in the garden. | Appreciati- on.  Care  Awareness  Fluency  Concern | The school dem. Garden  . | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | Rotten tubers  Stunted growth. |  |  |  |  |  |  |  |  |
| **7** | **3** | **Crop Growi ng** | **Crop pests for differe d crops.** | **Pests for different crop pests Legumes**   * bean weevils * Cut worm * Bean fly * thrips * termites   **tubers**   * rats * mice * Caterpillars   **Cereals**   * locusts * monkeys * maize weevils   **How to control crop pests**  By spraying crops with pesticides  By putting scare crows in the garden.  **Crop diseases**   * Rosette * Tomato blight * Maize streak | **The learner;**   1. Identifies crop pests for different crops. 2. States the ways of controls crop pests. 3. Mentions the different crop diseases. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to crop pests. 2. Reads, internalize and writes texts and questions related to crop pests. | Guided discovery  Discussion  Observati on  Brain storming | Identifying crop pests for different crops.  Stating the ways of controlling crop pests.  Mentions the different crop diseases. | Appreciati- on.  Care  Awareness  Fluency  Concern | The school dem. Garden  . | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **7** | **4** | **Weath er**  **chang** | **Types of**  **weath** | **Weather,**  **What is weather?**  Weather is the state | **The learner;**   1. Give the meaning of | **The learner;**   1. Pronounces, spells, reads | Guided discovery | Giving the meaning  of weather | Appreciati- on. | The school  dem. | Mk. Int.  sci. |  |

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|  |  | **es aroun d usp** | **er** | of the atmosphere at a given time and place.  **Types of weather.**  **Elements / factors of weather.**   * Sunshine * Rainfall * Cloud Cover * Wind * Humidity * Temperature   **Rainfall**   Rainfall is water falling in separate drops from clouds.   Rainfall is the amount of rain water that falls in a certain area at a  certain time. | weather.  2. Identifies the types of weather.  3. states the weather elements | writes and demonstrates meaning of words related to weather  2. Reads, internalize and writes texts and questions related to weather | Discussion  Observati on  Brain storming | Identifying the types of weather.  Stating the elements of weather. | Care  Awareness  Fluency  Concern | Garden  . | pbk 4  Int. sci. syllab us bk 4 |  |
| **7** | **5** | **Weath er chang es aroun d us** | **The water cycle** | **WATER CYCLE (rain**  **cycle)**  **How rain is formed.**   * The sun heats water in water bodies and plants to produce water vapour. * Water vapour rises into the atmosphere. | **The learner;**   1. Describes the water cycle. 2. Differentiates between rain and rainfall. 3. Draws the structure of the water cycle. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to weather 2. Reads, internalize and | Guided discovery  Discussion | Describing the water cycle.  Differentiati ng between a rain and  rain fall. | Appreciati- on.  Care  Awareness | The school dem. Garden  . | Mk. Int. sci. pbk 4  Int. sci. syllab |  |

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|  |  |  |  | * Water vapour condenses to form clouds. * When the clouds become heavy, they form rain.   **An illustration of a water cycle.**  **Process**  A – Transpiration  B – Evaporation  C – Condensation |  | writes texts and questions related to weather | Observati on  Brain storming | Drawing the structure of the water cycle. | Fluency  Concern |  | us bk 4 |  |
| **7** | **6** | **Weath er chang es aroun d us** | **The water cycle** | **An experiment to show water cycle.**  **Things needed**   * A kettle of water * Burning charcoal * Iced bottle | **The learner;**   1. Describes an experiment to show the water cycle. 2. Identifies the processes involved in the experiment. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to water cycle 2. Reads, internalize and writes texts and questions related to water cycle. | Guided discovery  Discussion  Observati on  Brain storming | Describing an experiment on the water cycle.  Identifying the process involved in the water cycle. | Appreciati- on.  Care  Awareness  Fluency  Concern | A chart showin g an illustrati on of the water cycle. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **7** | **7** | **Weath er** | **How to measu** | **How to measure rainfall.** | **The learners;**   1. Describes the | **The learner;**   1. Pronounces, | Guided discovery | Describing the way | Appreciati- on. | A chart showin | Mk. Int. |  |

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|  |  | **chang es aroun d us.** | **re rainfall** | * Rainfall is measured by an instrument called a rain gauge. * Rainfall is measured in millimetres.   **A DIAGRAM OF A RAIN GAUGE**  **Importance of rainfall.**   * Rainfall cools the temperature. * It provides water for seeds.   **Dangers of too much rainfall.**   * Heavy rainfall causes floods that can destroy the environment. * Floods carry rubbish and soil into lakes   and rivers. | way in which rainfall is measured.   1. Draws the structure of the rain gauge. 2. Gives the importance of rain to people. 3. States the danger of rainfall. | spells, reads writes and demonstrates meaning of words related to water cycle  2. Reads, internalize and writes texts and questions related to water cycle. | Discussion  Observati on  Brain storming | rainfall is formed.  Drawing the diagram of the rain gauge.  Giving the importanc e of rain.  Stating the dangers of rainfall. | Care  Awareness  Fluency  Concern | g an illustrati on of the water cycle. | sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **8** | **1** | **Weath er chang es aroun d us** | **Clouds** | **Clouds**  - Clouds are a mass of condensed  water vapour. **Types of clouds Cirrus** - furthest in  the sky.  **Cumulus** | **The learners;**   1. Gives the meaning of clouds. 2. Identifies the types of clouds. 3. Gives the | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of   words related to weather chart | Guided discovery  Discussion | Giving the meaning of clouds.  Identifying the types of clouds. | Appreciati- on.  Care  Awareness | A chart showin g an illustrati on of the water  cycle. | Mk. Int. sci. pbk 4  Int. |  |

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|  |  |  |  | **Stratus**  **Nimbus** - lowest  clouds **Importance of clouds.**   * They give us rain. * They modify weather (regulate temperature)   **Temperature:**  -Temperature is the degree of hotness or coldness of a body or a place.   * The instrument used to measure temperature is called a thermometer. * **Types of thermometers.** * Clinical thermometer * six’s thermometer * wall thermometer | importance of clouds.  4. Defines temperature.  5. Describes the types of thermometers. | 2. Reads, internalize and writes texts and questions related to weather chart | Observati on  Brain storming | Giving the importanc e of clouds.  Defining temperatur e.  Describing the types of thermomet ers. | Fluency  Concern |  | sci. syllab us bk 4 |  |
| **8** | **2** | **Weath er chang es aroun d us** | **Wind** | **Wind**   Wind is moving air  **Wind instruments:**   1. **Wind vane**    It shows the direction where wind is blowing from.   1. **Wind sock** | **The learner.**   1. Describes wind. 2. State the role of a wind vane. 3. Draws the structure of a wind vane, wind sock, and   anemometer. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to wind 2. Reads, | Guided discovery  Discussion | Giving the meaning of wind  Stating the instrument use in windy  weather. | Appreciati- on.  Care  Awareness | An illustrati on of a wind vane, wind sock and  anemo | Mk. Int. sci. pbk 4  Int. sci. |  |

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|  |  |  |  |  A wind sock and weather cock can show the direction of wind.  **c). Anemometer**   It is used to measure the speed of wind.   it has cups which trap wind and rotate as wind blows.  **Uses of wind:**   Wind is used for winnowing:   Wind brings cold air in warm places  **Disadvantages of wind:**   Strong wind leads to soil erosion.   Strong wind destroys property. | 4. States the advantages and disadvantages of wind of wind. | internalize and writes texts and questions related to wind | Observati on  Brain storming | Drawing the structure of a wind vane, wind sock and anemomet er  Stating the advantage and disadvanta ges of wind. | Fluency  Concern | meter. | syllab us bk 4 |  |
| **8** | **3** |  |  | **WEATHER STATION**   What is a weather station?   A weather station is a place where weather conditions are  studied. | **The learner;**   1. Defines a weather station and weather forecast. 2. Draws a Stevenson   screen | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of   words related to a weather | Guided discovery  Discussion | Giving the meaning of a weather station and weather forecast. | Appreciati- on.  Care  Awareness | An illustrati on of a Stevens on screen | Mk. Int. sci. pbk 4  Int. |  |

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|  |  |  |  | **Weather forecast:**   This is the prediction of future weather changes.  **The structure of a Stevenson screen**     * **NB**: The Stevenson screen is painted white so as to reflect heat. * It is used to keep delicate weather instruments like:  1. Thermometers 2. Barometers 3. Hygrometers | 3. Identifies the weather instrument kept in a Stevenson screen. | station  2. Reads, internalize and writes texts and questions related to weather forecast. | Observati on  Brain storming | Drawing the structure of a Stevenson screen  Identifying the instruments kept in a Stevenson screen. | Fluency  Concern |  | sci. syllab us bk 4 |  |
| **8** | **4** | **PERSO NAL HYGIE NE** | **PERSO NAL HYGIE NE** | **PERSONAL HYGIENE**   Personal hygiene is the general cleanliness of the body.   Or personal hygiene is the  keeping of the | **The learner;**   1. Defines personal hygiene. 2. States ways of keeping the body clean. 3. Identifies the | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to   Personal | Guided discovery  Discussion | Defining personal hygiene.  Stating ways of keeping  the body | Appreciati- on.  Care  Awareness | Clean water  A tooth brush | Mk. Int. sci. pbk 4  Int. |  |

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|  |  |  |  | body clean.   * **Ways of keeping the body clean**  1. Bathing daily. 2. Cutting finger nails short. 3. Washing hands after using a latrine/ toilet. 4. Washing clothes. 5. Combing hair. 6. Ironing clothes. **Items used in keeping our bodies clean** 7. Clean water 8. Tooth paste tooth brush 9. Bathing sponge 10. Towel 11. dental floss | items used to keep the body clean. | hygiene  2. Reads, internalize and writes texts and questions related to Personal hygiene | Observati on  Brain storming | clean.  Identifying the items used to keep the body clean. | Fluency  Concern | Tooth paste | sci. syllab us bk 4 |  |
| **8** | **5** | **Person al hygien e** | **Import ance of keepin g the body clean** | **Importance of keeping the body clean**   It helps to prevent skin diseases.   It helps to prevent bad smell caused by sweating.  **Effects of poor personal hygiene**   It leads to bad body smell. | **The learner;**   1. States the importance of keeping our bodies clean. 2. States the dangers of poor personal hygiene. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to Personal hygiene 2. Reads, internalize and   writes texts and | Guided discovery  Discussion  Observati | Stating the importanc e of keeping our bodies clean.  Stating the dangers of poor  personal | Appreciati- on.  Care  Awareness  Fluency | Clean water  A tooth brush  Tooth paste | Mk. Int. sci. pbk 4  Int. sci. syllab us bk  4 |  |

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|  |  |  |  |  It leads to skin diseases.  **Keeping clothing and beddings clean**   Beddings should be washed regularly with clean water and soap.   Clothes need to be ironed after washing in order to kill parasites and germs.  **Diagram of a child ironing**   * **Importance of keeping beddings clean.**    It prevents bad smell.   It prevents parasites like lice, ticks and fleas. |  | questions related to Personal hygiene | on  Brain storming | hygiene | Concern |  |  |  |

**PRIMARY FOUR SCIENCE SCHEME OF WORK FOR TERM III, 2023**

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| **W K** | **P D** | **TOPIC** | **TOPIC** | **CONTENT** | **SUBJ. COMP’NCES** | **LANG.**  **COMP’NCES** | **METHODS** | **ACTIVITIES** | **IND. OF L.S.V** | **INST. MAT.** | **REF.** | **R E**  **M** |
| 1 | 1 | **comm unicab le intestin al diseas es and worm infesta tions** | **Comm unicab le Diseas es** | **COMMUNICABLE DISEASES**;  These are diseases which can be spread from one person to another.  **Diarrheal diseases** These are diseases that affect the gut, and they are characterized by diarrhea  Examples include;   1. Typhoid 2. Dysentery 3. Peptic ulcers | **The learner;**  **-**Defines the term communicable diseases  **-**Names different communicable diseases  **-**States different causes of intestinal communicable diseases | **The learner;**  **-**Pronounces, spells, reads, writes and demonstrates, words related to intestinal communicable diseases | **-**Class discussion  **-**Guided discovery  **-**Brain storming | Naming examples of diarrhea diseases | Awareness, Care, appreciatio n | work cards showin g exampl es of diarrhe a disease s | Mk inte grat ed scie nce | 1 |
| 2 | 2 | **comm unicab le intestin al diseas es and worm infesta tions** | **How intestin al diseas es are spread** | **How intestinal diseases are spread.**   1. Through eating contaminated food. 2. Through drinking contaminated water. 3. Through a 4 F path germ | **The learner;** describes the 4Fs path germ | **The learner;** Pronounces, spells, reads, and writes and demonstrated the meaning of words related to 4Fs path germ | **-**Brain storming,  -Guided discovery | Describing the 4Fs path germ. | Fluency  Observatio n  care  awareness | A chart showin g 4Fs path germ. | Co mpr ehe nsiv e scie nce boo k 4. |  |

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|  |  | **Comm unicab le intestin al diseas es and worm infesta tions** | **DIARR HOEA** | **DIARRHOEA**   * This is a disease caused by either a virus or bacteria or amoeba. * Diarrhea involves passing out of watery stools frequently.   **Effects of diarrhea**  -Diarrhea causes dehydration | **The learner**; - defines diarrhea.  -states the ways through which diarrhea is spread. | **The learner;**  Pronounces, spells, reads, and writes and demonstrated the meaning of words related to diarrhea | Class discussion  **-**Guided discovery  **-**Brain Storming. | Identifying the ways through which diarrhea is spread. | Fluency, appreciatio n, care. | Work cards  showin g the spread of diarrhe a | Mk inte grat ed scie nce pupil s boo k 4 | 2 |
| 2 | 4 | **Comm unicab le intestin al diseas es and worm infesta tions** | **CHOLE RA AND TYPHOI D** | **DYSENTERY**  **-**This is diarrhea with blood or mucus.  -It is caused by either bacteria or amoeba. signs and symptoms of dysentery  -pain in the abdomen  -bloody diarrhea  -vomiting  **CHOLERA**  It is caused by bacteria  **Signs and symptoms of Cholera**  -watery stool  -frequent vomiting  -dehydration | **The learner;**  -States the cause of cholera and typhoid  -Gives signs and symptoms of cholera and typhoid**.** | **The learner;** Pronounces, spells, reads, and demonstrated the meaning of the words related to cholera and typhoid. | Class discussion Guided discovery  **-**Brain Storming | Identifying the ways through which typhoid and cholera are spread | Fluency, appreciatio n, care. | Work cards showin g the spread of cholera and typhoid | Mk inte grat ed scie nce pupil s boo k 4 | 2 |
| **1** | **5** | **Comm**  **unicab le** | **Preven**  **tion, control** | **Prevention, control**  **and treatment of diarrhoeal diseases.** | **The learner;**  -States the cause of typhoid | **The learner;**  Pronounces, spells, reads, and | Class  discussion Guided | Stating | Fluency,  appreciatio n, care. | Work  cards showin | Mk  inte grat |  |

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|  |  | **intestin al diseas es and worm infesta tions** | **and treatm ent of diarrho eal diseas es.** | It is caused by bacteria  **Signs and symptoms of Typhoid**   Abdominal pain   Fever   headaches  **Effects of typhoid**   diarrhea   dehydration   death  **The 3 Ds**   Diarrhea   Dehydration   Death | -Gives signs and symptoms of typhoid**.** | demonstrated the meaning of the words related to typhoid. | discovery  **-**Brain Storming |  |  | g the spread of cholera and typhoid | ed scie nce pupil s boo k 4 |  |
| 1 | **6** | **Comm unicab le intestin al diseas es and worm infesta tions** | **Preven tion, control and treatm ent of diarrho eal diseas es.** | **Prevention, control and treatment of diarrhoeal diseases.**   Washing hands with soap and clean water.   Cleaning of toilets **Effect of diarrhoeal diseases:**  **They can lead to; Dehydration**   Dehydration is the condition when the body does not have enough water.  **Causes of dehydration** | **The learner,**   1. States the ways of preventing the spread of diarrhoeal diseases. 2. States the effect of diarrhoeal 3. States the causes of dehydration. 4. Mentions signs and symptoms of dehydration. | The learner;   1. Pronounces, spells, reads writes and demonstrates meaning of words related to prevention and control of Diarrhoeal diseases 2. Reads, internalize and writes texts and questions related to   prevention and control of | Guided discovery  Discussion  Observati on illustration | Stating the ways of preventing the spread of diarrhoeal diseases.  Stating the effect of diarrhoeal  Stating the causes of dehydration  .  Mentioning | Appreciati- on.  Care  Awareness  Fluency  Concern | A  picture of a dehydr ated child. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  |  Too much diarrhoea   Too much vomiting  **Signs and symptoms of dehydration.**   Sunken eyes.   Little or no urine or tears. |  | Diarrhoeal diseases |  | signs and symptoms of dehydration  . plant. |  |  |  |  |
| 2 | **1** | **Comm unicab le intestin al diseas es and worm infesta tions** | **Treatm ent of dehydr ation.** | **Treatment of dehydration.**   The patient should be given Oral Rehydration solution (ORS)   ORS is given in order to replace the lost body fluids.  **Preparation of ORS / SSS – Salt sugar solution ORS – from a sachet.**  **What is needed?**   1. One sachet of ORS (oral rehydration salts) 2. 1 litre (2   tumpecos) of drinking water.   1. Spoon 2. Water 3. Clean container | **The learner;**   1. Mentions the treatment given to a dehydrated person. 2. Illustrate how to prepare ORS/ SSS | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to treatment of dehydration 2. Reads, internalize and writes texts and questions related to treatment of dehydration. | Guided discovery  Discussion  Observati on illustration | Mentioning the treatment given to a dehydrated person.  Illustrating how to prepare ORS/ SSS | Appreciati- on.  Care  Awareness  Fluency  Concern | Salt Sugar Water  water jar | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | **Steps taken to prepare**   Wash your hands with water and  soap. |  |  |  |  |  |  |  |  |
| 2 | **2** | **Comm unicab le intestin al diseas es and worm infesta tions** | **Prepar ation of S.S.S**  **– Salt Sugar solutio n Requir ement s** | **Preparation of S.S.S – Salt Sugar solution Requirements**   water and soap   clean boiled cool water  **Steps taken**   Wash your hands with water and soap.   Measure one litre of clean cool boiled water and pour it in in a clean container.   Measure 8 levelled tea spoons of sugar and one leveled  tea spoon of salt into the container | **The learner;**   1. Identifies the steps involved in preparing ORS/SSS. 2. Practically prepares ORS/ **s.s.s** | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to preparation of ORS/SSS 2. Reads, internalize and writes texts and questions related to preparation of ORS/ SSS | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Identifying the steps involved in preparing ORS/SSS.  Practically preparing**O RS**/ **s.s.s** | Appreciati- on.  Care  Awareness  Fluency  Concern | Salt Sugar Water  water jar | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **2** | **3** | **Comm unicab le intestin al diseas**  **es and** | **WORM INFEST ATION** | **WORM INFESTATION**   Worms are long, slender soft bodied animals with no limbs.   Worms can live in soil, bodies of | **The learner;**   1. Describes worm infestations. 2. Mentions the   examples of worms. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of   words related to | Guided discovery  Discussion  Observati | describing worm infestations  Mentioning  the examples of | Appreciati- on.  Care | A chart showin g differen t types of  worms. | Mk. Int. sci. pbk 4 |  |

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|  |  | **worm infesta tions** |  | animals, in fresh water, in plants, fruits or vegetables.  **Examples of intestinal worms**   tape worms   hook worms **How we can get worms.**   Eating  contaminated food with worms or eggs   Drinking contaminated water-Eating under cooked meat (pork/  beef) | 3. States how worms get into our bodies. | worm infestations.  2. Reads, internalize and writes texts and questions related to worm infestations. | on  Illustration  Demonstr ation. | worms.  Stating how worms gets into our bodies. | Awareness  Fluency  Concern |  | Int. sci. sylla bus bk 4 |  |
| **2** | **4** | **Comm unicab le intestin al diseas es and worm infesta tions** | **Signs and sympt oms of worm infestat ion** | **Signs and symptoms of worm infestation**   diarrhoea   loss of weight  **TAPE WORMS**   They are flat   They have segments (segmented)  **Structure of a tape worm.**  **Note:** | **The learner;**   1. Describes signs and symptoms of tape worm infestation 2. Describes the structure of a tape worms 3. States how tape worms get into   our bodies. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to tape worm infestations. 2. Reads, internalize and writes texts and   questions | Guided discovery  Discussion  Observati on  Illustration | Describing the signs and symptoms of tape worm infestations  Stating how tapes worms get into our bodies.  Stating how | Appreciati- on.  Care  Awareness | A chart showin g a structur e of a tape worm. | Mk. Int. sci. pbk 4  Int. sci.  sylla |  |

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|  |  |  |  | The head of a tape worm is called a Scolex  The hooks and suckers help tapeworms to hold on to the intestines  **Prevention of tape worms.**  Keeping toilets and latrines clean  Proper disposal of faeces in latrines  **Treatment of tape worms.**   Deworming all family members  and animals at home regularly. | 4. States the ways of preventing and treating tape worm infestations. | related to tape worm infestations. | Demonstr ation. | ways of controlling the spread of tape worm infestations | Fluency  Concern |  | bus bk 4 |  |
| **2** | **5** | **Comm unicab le intestin al diseas es and worm infesta tions** | **HOOK WORM S** | **HOOK WORMS**   They feed on blood   They live in small intestines  **Structure of a hook worm.**    **Signs and symptoms of hookworms** | **The learner;**   1. Describes the structure of a hook worm. 2. Describes signs and symptoms of a hook worm infestation. 3. States how tapeworms get   into our bodies. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to hook worm infestations. 2. Reads, internalize and writes texts and   questions | Guided discovery  Discussion  Observati on  Illustration | Describing the signs and symptoms of hook worm infestations  Stating how hook worms get into our bodies.  Stating how | Appreciati- on.  Care  Awareness | A chart showin g a structur e of a hook worm. | Mk. Int. sci. pbk 4  Int. sci.  sylla |  |

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|  |  |  |  |  A person becomes anaemic   pale skin, pale palm, pale eyelids  **Prevention and treatment of hookworm infestation.**   wear shoes or sandals especially in dirty places   Always defecate in the latrine or  toilet but not in bushes | 4. States the ways of preventing and treating tapeworm infestations. | related to hook worm infestations. | Demonstr ation. | ways of controlling the spread of hook worm infestations | Fluency  Concern |  | bus bk 4 |  |
| **2** | **6** | **Comm unicab le intestin al diseas es and worm infesta tions** | **PIN WORM S**  **(Threa d worms**  **)** | **PIN WORMS (Thread worms)**   They live in the colon and rectum.   They lay their eggs around the anus.   They cause itching around the anus at night.  **Structure of pin worms.**  **Signs and symptoms**   The person passes out the worms in  the faeces. | **The learner;**   1. Describes signs and symptoms of pin infestation 2. Describes the structure of a tape 3. States how pin worms get into our bodies. 4. States the ways of preventing   and treating pin | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to pin worm infestations. 2. Reads, internalize and writes texts and questions related to pin   worm infestations. | Guided discovery  Discussion  Observati on  Illustration  Demonstr | Describing the signs and symptoms of pinworm infestations  Stating how pin worms get into our bodies.  Stating how ways of controlling  the spread | Appreciati- on.  Care  Awareness  Fluency | A chart showin g a structur e of pin worms worm. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  |  Swollen belly.   Itching anus **Prevention and treatment of thread worm infestation**   Wash your hands before handling any food and after using the toilet.   Practice proper personal and food  hygiene | worm infestations. |  | ation. | of pin worm infestations. | Concern |  |  |  |
| **3** | **1** | **Vector s and diseas es** | **Comm on vector s.** | **Common vectors.** A vector is an organism that spreads germs.  **Examples of common vectors**    **Characteristics of vectors**   Some vectors have a proboscis for sucking blood  e.g. mosquitoes, ticks, fleas, lice and tsetse flies.   Some have a  hairy body for carrying germs | **The learner;**   1. Describes a vector. 2. States examples of vectors. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to vectors. 2. Reads, internalize and writes texts and questions related to vectors | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Describing vector.  Stating examples of vectors. | Appreciati- on.  Care  Awareness  Fluency  Concern | A chart showin g commo n vectors in the environ ment | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | e.g. a house fly |  |  |  |  |  |  |  |  |
| **3** | **2** | **Vector s and diseas es** | **How vector s spread diseas es.**  **Mosqui toes** | **How vectors spread diseases.**  **Mosquitoes** Mosquitoes lay their eggs in stagnant water (still water) **Life cycle of a mosquito**    **How mosquitoes spread germs;**   Germs are spread by an adult mosquito through bites.  **Diseases spread by different mosquitoes.**   Female  anopheles mosquito – malaria   Tiger / Aedes mosquito – yellow fever | **The learner;**   1. States how mosquitoes spread diseases. 2. Describes the life cycle of a mosquito 3. States how mosquitoes spread diseases. 4. Mentions the diseases spread by mosquitoes. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to how mosquitoes spread diseases 2. Reads, internalize and writes texts and questions related to how mosquitoes spread diseases. | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Stating how mosquitoes spread diseases.  Describing the life cycle of a mosquito  Stating how mosquitoes spreads diseases  Mentioning the diseases spread by mosquitoes | Appreciati- on.  Care  Awareness  Fluency  Concern | A chart showin g a life cycle of a mosquit o. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **3** | **3** | **Vector** | **House** | **House flies** | **The learner;** | **The learner;** | Guided | Stating how | Appreciati- | A chart | Mk. |  |

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|  |  | **s and diseas es** | **flies** |  Houseflies live in dirty places e.g. latrines and rubbish pits.  **Lifecycle of a housefly**   Houseflies lay eggs in decaying matter for their larvae to feed on decayed matter.  **How houseflies spread germs.**   Germs are spread by an adult housefly using its hairy body when it visits dirty places.   The germs are carried onto our uncovered food.  **Diseases spread by houseflies**  diarrhoea typhoid dysentery cholera | 1. States how house flies spread diseases. 2. describes the life cycle of a house fly 3. States how house flies. Spread diseases.   3. Mentions the diseases spread by a housefly | 1. Pronounces, spells, reads writes and demonstrates meaning of words related to how houseflies spread diseases 2. Reads, internalize and writes texts and questions related to how houseflies spread diseases. | discovery Discussion  Observati on  Illustration  Demonstr ation. | houseflies spread diseases.  Describing the life cycle of a housefly  Stating how a house fly Spreads diseases.  Mentioning the diseases spread by houseflies. | on. Care  Awareness  Fluency  Concern | showin g a life cycle of a housefl y | Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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| **3** | **4** | **Vector s and diseas es** | **Cockr oache s** | **Cockroaches**  - Cockroaches are commonly found in dark corners and dark places  e.g. cupboards, wall cracks and latrines.  **Lifecycle of a cockroach.**  **How cockroaches spread germs.**   Cockroaches pick germs from dirty places which they carry on their hairy body.   When they land on uncovered food, they leave germs on it and we get them when we eat that food.  **Diseases spread by cockroaches.**   Diarrhoea   Cholera   Dysentery   Typhoid | **The learner;**   1. States how cockroaches spread diseases. 2. describes the life cycle of a cockroach 3. States how cockroaches spread diseases. 4. Mentions the diseases spread by a cockroach | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to how cockroaches spread diseases 2. Reads, internalize and writes texts and questions related to how cockroach spread diseases. | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Stating how cockroache s spread diseases.  Describing the life cycle of a cockroach  Stating how house fly spread diseases.  Mentioning the diseases spread by cockroache s | Appreciati- on.  Care  Awareness  Fluency  Concern | A chart showin g a life cycle of a cockro ach | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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| **3** | **5** | **Vector s and diseas es** | **Lifecyc le of a tsetse fly** | **Lifecycle of a tsetse fly**    An adult housefly  doesn’t lay eggs, the eggs hatch inside the body and passes out the larvae.  **How a tsetse fly spreads diseases**   By biting **Disease spread by tsetse flies**   Sleeping sickness (to people)   Nagana (to animals)  **Other diseases vectors**  rat fleas lice | **The learner;**   1. States how tsetse flies spread diseases. 2. describes the life cycle of a tsetse flies 3. States how a tsetse fly spreads diseases. 4. Mentions the diseases spread by tsetse flies | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to how tsetse flies 2. Reads, internalize and writes texts and questions related to tsetse flies | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Stating how cockroache s spread diseases.  Describing the life cycle of a cockroach  Stating how tsetse fly spreads diseases.  Mentioning the diseases spread by tsetse flies | Appreciati- on.  Care  Awareness  Fluency  Concern | A chart showin g a life cycle of a tsetse flies. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **3** | **6** | **Vector s and diseas**  **es** | **Preven tion and**  **control** | **Prevention and control of disease vectors and diseases.**  **Ways of controlling** | **The learner;**   1. States ways of controlling the   spread of | **The learner;**   1. Pronounces, spells, reads   writes and | Guided discovery  Discussion | Stating ways of controlling  the spread | Appreciati- on.  Care | The environ ment | Mk. Int. sci.  pbk |  |

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|  |  |  | **of diseas e vector s and diseas es.**  **Ways of control ling mosqu itoes / malari a** | **mosquitoes / malaria**   Draining stagnant water   Cleaning bushes near our homes.   Spraying using insecticides.  **Ways of controlling diseases spread by houseflies / cockroaches.**   Covering leftover food.   Proper disposal of faeces.   Collecting and burning rubbish.  **Controlling tsetse flies.**   Using traps to trap adult tsetse flies.   Cleaning bushes near our homes.   Spraying using insecticides.  **Control of fleas, ticks and mites**   Spraying using insecticides.   Washing and ironing beddings | vectors and diseases.  2. States ways of controlling the spread of tsetse flies, houseflies, cockroaches and mosquitoes. | demonstrates meaning of words related to ways of controlling the spread of diseases and vectors.  2. Reads, internalize and writes texts and questions related to ways of controlling the spread of diseases and vectors. | Observati on  Illustration  Demonstr ation. | of vectors and diseases.  2. Stating ways of controlling the spread of tsetse flies, houseflies, cockroache s and mosquitoes. | Awareness  Fluency  Concern | Chalkb oard illustrati on. | 4  Int. sci. sylla bus bk 4 |  |
| **4** | **1** | **Accid ents** | **accide nts** | **Accidents**   An accident is a | **The learner;**  1. Defines an | **The learner;**  1. Pronounces, | Guided discovery | Defining an accident. | Appreciati- on. | The environ | Mk. Int. |  |

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|  |  | **and first aid** |  | sudden happening that may cause harm to the body.   A person involved in an accident is called a casualty.  **Examples of accidents at home**   Cuts and scalds   Poisoning   Drowning   Electric shocks **Accidents on the way to school**   motor  accidents   stings   cuts   bites | accident.  2. Mentions examples of accidents at home and at school. | spells, reads writes and demonstrates meaning of words related to accidents.  2. Reads, internalize and writes texts and questions related to accidents. | Discussion  Observati on  Illustration  Demonstr ation. | Mentioning examples of accidents at home and at school. | Care  Awareness  Fluency  Concern | ment | sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **4** | **2** |  |  | **Types of injuries and their causes.**  **Burns**   A burn is an injury caused by dry heat.  **Source causes of burns.**   hot charcoal   hot metals   fire | **The learner;**   1. Defines a burn and a scald. 2. Mentions the sources of burns and scalds. 3. Mentions ways of preventing burns and scalds. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to burns and scalds. 2. Reads, internalize and | Guided discovery  Discussion  Observati on | Defining a burn and a scald.  Mentioning the sources of burns and scalds.  Mentioning ways of | Appreciati- on.  Care  Awareness | The environ ment  Chalk board illustrati on. | Mk. Int. sci. pbk 4  Int. |  |

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|  |  |  |  |  electricity  **Scalds**  A scald is an injury on the body caused by wet heat.  **Sources / causes of scalds**   1. hot water 2. steam 3. hot porridge 4. hot soup |  | writes texts and questions related to burns and scalds. | Illustration  Demonstr ation. | preventing burns and scalds. | Fluency  Concern |  | sci. sylla bus bk 4 |  |
| **4** | **3** |  |  | **Fracture**  A fracture is a broken or cracked bone in the body.  **Causes of fractures.**   Falling from a tree, bed, building etc.   Getting involved in motor accidents   Playing rough games.  **Types of fractures. Simple fracture Compound fracture** | **The learner;**   1. Defines a fracture. 2. Mentions the causes of fractures. 3. Describes the types of fractures. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to fractures. 2. Reads, internalize and writes texts and questions related to fractures. | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Defining a fracture.  Mentioning the causes of fractures.  Describing the types of fractures. | Appreciati- on.  Care  Awareness  Fluency  Concern | The environ ment  A chart showin g a simple and compo und fracture  . | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | **Simple fracture**   This is when the bone breaks or cracks and it remains inside the skin.  **Structure of a simple fracture.**  **Compound fracture.**   This is where the bone breaks and comes out of the skin.  **Structure of a compound fracture.** |  |  |  |  |  |  |  |  |
| **4** | **4** |  |  | **Sprains, strains and dislocations**   A sprain is a twisted or torn ligament.  A ligament is a structure that joins a bone to bone.  **Causes of sprains.**  Twisting or tearing of | **The learner;**   1. Defines a strain a sprain and a dislocation. 2. Mentions the causes strains, sprain and dislocations.   States the first aid | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to sprains, strains   and dislocations. | Guided discovery  Discussion  Observati on | Defining a strain a sprain and a dislocation.  Mentioning the causes strains,  sprain and dislocations. | Appreciati- on.  Care  Awareness | Chalkb oard illustrati on. | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | the ligament  **Signs and sprains**   Swelling around the joint.   Pain in the joint.  **Stains**   A strain is an injury on the tendon or muscle.   A tendon is a tissue that joins a muscle to a bone  **Causes of strains.**   Over stretching of a muscle.  **Signs of a strain**   Sudden sharp pain in a muscle.   The muscle may appear swollen.  **Dislocation**   This is where a  bone gets out of its usual position. | for dislocations. | 2. Reads, internalize and writes texts and questions related to sprains, strains and dislocations. | Illustration  Demonstr ation. | Stating the first aid for dislocations. | Fluency  Concern |  | Int. sci. sylla bus bk 4 |  |
| **4** | **5** |  |  | **Ways of preventing accidents**  **How to prevent accidents at home.**   Keep medicine, drugs and other chemicals out of children’s reach.   Cooking should | **The learner;**  1. Sates ways of controlling and preventing accidents at and at school. | **The learner;**  1. Pronounces, spells, reads writes and demonstrates meaning of words related to prevention of  accidents. | Guided discovery  Discussion  Observati on | Sating ways of controlling and preventing accidents at and at school.. | Appreciati- on.  Care  Awareness | Road traffic signs | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | be done in a raised place where children cannot reach.   Avoid playing with electric equipment  **Preventing accidents on the way to school.**   Avoid on the road.   Use a zebra  crossing when crossing the road. |  | 2. Reads, internalize and writes texts and questions related to prevention of accidents/ | Illustration  Demonstr ation. |  | Fluency  Concern |  | Int. sci. sylla bus bk 4 |  |
| **4** | **6** |  |  | **Safety rules on the road.**   Look right and then left, look right again before you cross the road.   Use a zebra crossing to cross the road.   Avoid playing on the road.   Always walk on the pedestrian side of the road.  **Examples of road signs** | **The learner;**   1. Sates the safety rules on the road. 2. Identifies examples of road signs. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to prevention of accidents. 2. Reads, internalize and writes texts and questions related to prevention of accidents/ | Guided discovery  Discussion  Observati on  Illustration  Demonstr ation. | Sating the safety rules on the road.  Identifying examples of road signs. | Appreciati- on.  Care  Awareness  Fluency  Concern | Road traffic signs | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **5** | **1** |  |  | **Poisoning** | **The learner;** | **The learner;** | Guided | Defining | Appreciati- | Jik | Mk. |  |

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|  |  |  |  |  Poison is anything that can cause harm or death when it gets in the body.   Poisoning happens when one eats or drinks something that is harmful to the body.  **Causes of poisoning**   Taking expired drugs.   Taking over dose of medicine.  **Signs and symptoms of poisoning.**   1. Vomiting 2. Fainting 3. Difficulty or rapid breathing   **Prevention of poisoning.**   1. Keep drugs away from children’s reach. 2. Take drugs prescribed by health workers. | 1. Defines poison and poisoning. 2. Mentions the causes of poisoning 3. Identifies the signs and symptoms of poisoning. 4. States ways of preventing poisoning. | 1. Pronounces, spells, reads writes and demonstrates meaning of words related to poisoning. 2. Reads, internalize and writes texts and questions related to poisoning. | discovery Discussion  Observati on  Illustration  Demonstr ation. | poison and poisoning.  Mentioning the causes of poisoning  Identifying the signs and symptoms of poisoning.  Stating ways of preventing poisoning. | on. Care  Awareness  Fluency  Concern | Vim  rat poison  Insectici des. | Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **5** | **2** |  |  | **First aid Kit**  A first aid kit is a collection of first aid | **The learner;**   1. Defines a first aid kit. | **The learner;**   1. Pronounces, spells, reads | Guided discovery | Defining a first aid kit. | Appreciati- on. | Jik | Mk. Int.  sci. |  |

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|  |  |  |  | materials **Components of a first aid kit and their uses.** A razor blade.  A saftey pin.  A pair of scissors A gauze  plaster | 2. Identifies the components of a first aid kit with their uses in first Aid administration. | writes and demonstrates meaning of words related to first aid kit  2. Reads, internalize and writes texts and questions  related to first aid kit | Discussion  Observati on  Illustration | Identifying the component s of a first aid kit with their uses in first aid administrati on. | Care  Awareness  Fluency  Concern | Vim  rat poison  Insectici des. | pbk 4  Int. sci. sylla bus  bk 4 |  |
| **5** | **3** |  |  | **Giving first aid**   First aid is the immediate help given to a casualty before being taken to the health centre.  **Reasons for giving first aid**   -save life.   To reduce pain. **First aid for burns and scalds**   Cool the injured part with clean cold water.  **First aid for fractures.**   Tie splints on the fractured area.  **A splint on the leg** | **The learner;**   1. Defines a first aid 2. Gives reasons for giving first aid. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to first aid 2. Reads, internalize and writes texts and questions related to first aid. | Guided discovery  Discussion  Observati on  Illustration | Defining a first aid.  Giving reasons forgiving first aid. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chalkb oard illustrati on | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  |  Splints hold the broken bone in one position.   Support the injured part with an **arm sling** in case it is the arm  that is fractured. |  |  |  |  |  |  |  |  |
| **5** | **4** |  |  | **First aid for sprains, strains and dislocations.**   Apply cold water or ice at the injured part. Cold water reduces pain and swelling in the tissue.   Fix the injured part with a bandage.  **First aid for poisoning.**   Give the person milk, juice or water to take in order to dilute the poison.   Make the person vomit in case of | **The learner;**   1. Describe and illustrates the first aid for strains, sprains and poisoning. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to first aid 2. Reads, internalize and writes texts and questions related to first aid. | Guided discovery  Discussion  Observati on  Illustration | Describing the first aid for strains, sprains and poisoning. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chalkb oard illustrati on | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | solid poison. |  |  |  |  |  |  |  |  |
| **5** | **5** |  |  | **First aid for snake bites and nose bleeding.**  **First aid for snake bites.**   Tie a tourniquet between the bitten part and the heart to prevent venom (poison from reading the heart.)   A tourniquet is a piece of cloth used to tie near the bitten part.  **First aid for nose bleeding**   Bend the patients head forward.   Pinch the nose of the patient and advise the patient to breathe through the mouth. | **The learner;**   1. Describe and illustrates the first aid for snake bites and nose bleeding. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to first aid 2. Reads, internalize and writes texts and questions related to first aid. | Guided discovery  Discussion  Observati on  Illustration | Describing the first aid for snake bites and nose bleeding | Appreciati- on.  Care  Awareness  Fluency  Concern | Chalkb oard illustrati on | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **5** | **6** | **Keepin g rabbits** | **RABBIT S** | **RABBITS**   * A female rabbit is called a doe. * A male rabbit is | **The learner;**  1. Identifies the  external parts of a rabbit. | **The learner;**  1. Pronounces,  spells, reads writes and | Guided discovery  Discussion | Describing the first aid for snake  bites and | Appreciati- on.  Care | Chart showin g parts  of a | Mk. Int. sci.  pbk |  |

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|  |  |  |  | called a buck   * The young of a rabbit is called a kit. * Many young rabbits born at the same time are called a litter.   **The external parts of a rabbit.** | 2. Draws and labels the external parts of a rabbit. | demonstrates meaning of words related to rabbits  2. Reads, internalize and writes texts and questions related to rabbits | Observati on  Illustration | nose bleeding | Awareness  Fluency  Concern | rabbit. | 4  Int. sci. sylla bus bk 4 |  |
| **6** | **1** | **Keepin g rabbits** | **Types of Rabbit s** | **Types of Rabbits**   1. local breeds 2. exotic breeds **Local breeds of rabbits.**    They are also called indigenous breeds or native breeds   They mainly live in bushes (burrows) on their own.  **Exotic breeds of rabbits.**   They are kept in homes (hutches)   They live in | **The learner;**   1. Identifies the types of rabbits. 2. Describe the **CCCs** of local and exotic breeds of rabbits. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to rabbits 2. Reads, internalize and writes texts and questions related to rabbits | Guided discovery  Discussion  Observati on  Illustration | . Identifies the types of rabbits.  2. Describe the **CCCs** of local and exotic breeds of rabbits. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chart showin g differen t breeds exotic breeds. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | hutches constructed by the farmers.  **Examples of exotic breeds of rabbits.**   1. Angora rabbits 2. Rex rabbit 3. Californian rabbits |  |  |  |  |  |  |  |  |
| **6** | **2** | **Keepin g rabbits** | **Uses of rabbits** | **Uses of rabbits Reasons why people keep rabbits**   Rabbits are sold by farmers to get money.   Rabbits are a source of meat   Rabbits provide skins used to make bags, jackets, belts, shoes and host.  **Comparing the local and exotic breeds** | **The learner;**   1. States the uses of rabbits to people. 2. Compares local breeds of rabbits and exotic breeds. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to rabbits 2. Reads, internalize and writes texts and questions related to rabbits | Guided discovery  Discussion  Observati on  Illustration | Stating the uses of rabbits to people.  Comparing local breeds of rabbits and exotic breeds. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chart showin g differen t breeds exotic breeds. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **6** | **3** | **Keepin g rabbits** | **Buildin g a rabbit hutch** | **Building a rabbit hutch**   The house of a domestic rabbit is called a hutch.   A hutch should be able to protect rabbits from easy  spread of | **The learner;**   1. Describes the qualities of a good hutch. 2. Mentions the types of hatches. 3. draws and name the types | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to rabbits 2. Reads, | Guided discovery  Discussion  Observati on | Describing the qualities of a good hutch.  Mentioning the types of hatches.  Drawing | Appreciati- on.  Care  Awareness | Chart showin g differen t types of hutches  . | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  | diseases.  **Types of hutches.** There are three types of hutches;   1. A traditional hutch 2. A morant hutch 3. A caged hutch   **A morant hutch** | of hatches. | internalize and writes texts and questions related to rabbits | Illustration | and name the types of hatches. | Fluency  Concern |  | Int. sci. sylla bus bk 4 |  |
| **6** | **4** | **Keepin g rabbits** | **Qualiti es of a good hutch** | **Qualities of a good hutch**   It should always be clean and dry.   It should have enough air entering it.   (A wire mesh allows free circulation of air in the hutch)   It should be strong enough to protect the  rabbits from wild animals and rain. | **The learner;**   1. Describes the qualities of a good hutch. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to rabbits 2. Reads, internalize and writes texts and questions related to rabbits | Guided discovery  Discussion  Observati on  Illustration | Describing the qualities of a good hutch.  Mentioning the types of hatches.  Drawing and name the types of hatches. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chart showin g differen t types of hutches | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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| **6** | **5** |  | **Makin g a rabbit hutch** | **Making a rabbit hutch**  **What you need;** Small sticks Banana fibres paper box  glue  **What to do:**   1. Tie small sticks in two triangular shapes. 2. Get one long stick and use it to join the two triangular shapes. 3. Make a rectangular frame from sticks. Use banana fibres to make a net as shown. 4. Place the frame in number **2** onto the rectangular frame in number **3.** Join the edges using banana fibres.   6. Follow the same… | **The learner;**  1. Describes the steps involved when making a local caged hutch. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to rabbits 2. Reads, internalize and writes texts and questions related to housing rabbits | Guided discovery  Discussion  Observati on  Illustration | Describing the steps involved when making a local caged hutch. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chart showin g differen t types of hutches | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **5** | **6** | **Keepin g rabbits** | **Manag ing**  **rabbits Feedin** | **Managing rabbits Feeding rabbits.**  - Rabbits feed on different foods which | **The learner;**  1. Describes the steps involved when making a | **The learner;**  1. Pronounces, spells, reads writes and | Guided discovery  Discussion | Describing the steps  involved when | Appreciati- on.  Care | Chart showin  g differen | Mk. Int.  sci. pbk |  |

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|  |  |  | **g rabbits**  **.** | end up providing a balanced diet to them.  e.g. Pellets (these are commercial feeds)   * banana peelings * sweet potato vines * leafy vegetables   e.g. cabbage , carrots  **Breeding of rabbits.** Breeding is the process through which animals give birth to their young ones.  **Signs of a doe on heat.**  -It moves up and down, all the time restless.   * It lies on one side of its body. * It rubs its body against the hutch walls.   **NB:**   * A doe takes 30 days to produce. * A nest is prepared in the hutch. | local caged hutch. | demonstrates meaning of words related to housing rabbits  2. Reads, internalize and writes texts and questions related to housing rabbits | Observati on  Illustration | making a local caged hutch. | Awareness  Fluency  Concern | t types of hutches | 4  Int. sci. sylla bus bk 4 |  |
| **6** | **1** | **Keepin**  **g** | **Hygien**  **e in** | **Hygiene in rabbits**   Rabbits should | **The learner;**  1. Describes the | **The learner;**  1. Pronounces, | Guided  discovery | Describing  the ways of | Appreciati-  on. | Chalkb  oard | Mk.  Int. |  |

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|  |  | **rabbits** | **rabbits** | be kept in clean places and should be given clean drinking water.   The hutch should be cleaned regularly.   Feeding container should be cleaned very often. | ways of promoting hygiene in a rabbit’s hutch. | spells, reads writes and demonstrates meaning of words related to hygiene in rabbits.  2. Reads, internalize and writes texts and questions related to hygiene in  rabbits. | Discussion  Observati on  Illustration | promoting hygiene in a rabbit hutch. | Care  Awareness  Fluency  Concern | illustrati on. | sci. pbk 4  Int. sci. sylla bus bk 4 |  |
| **6** | **2** | **Keepin g rabbits** | **Comm on diseas e of rabbits** | **Common disease of rabbits.**   * Ear canker * Coccidiosis * Colds * scuffles   **Signs and symptoms/ prevention and**  **Treatment of common diseases of rabbits.** | **The learner;**   1. Identifies the common diseases of rabbits. 2. States the signs and symptoms diseases of rabbits. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to diseases of rabbits. 2. Reads, internalize and writes texts and questions related to diseases of rabbits. | Guided discovery  Discussion  Observati on  Illustration | Identifying the common diseases of rabbits.  Stating the signs and symptoms diseases of rabbits. | Appreciati- on.  Care  Awareness  Fluency  Concern | Chalkb oard illustrati on. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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| **6** | **3** | **Keepin g rabbits** | **Keepin g Rabbit Record s** | **Keeping Rabbit Records**   Records refer to written information on various activities carried out on a farm.  **Types of records in rabbit keeping**   1. Sales and expenditure records 2. Labour records 3. Health records   **Other records**   Number of rabbits on a farm.   Date of mating so as to prepare the nesting boxes where the doe will produce from.  **Importance of record keeping.**   It enables a farmer to know whether he is making profits or losses.   It enables a farmer to know  when to carry out | **The learner;**   1. Defines the term records. 2. Mentions the types of records kept on a rabbit farm. 3. . States the importance of keeping records kept on a rabbit | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to record keeping. 2. Reads, internalize and writes texts and questions related to record keeping. | Guided discovery  Discussion  Observati on  Illustration | Defining the term records.  Mentioning the types of records kept on a rabbit farm.  Stating the importance of keeping records kept on a rabbit | Appreciati- on.  Care  Awareness  Fluency  Concern | Chalkb oard illustrati on. | Mk. Int. sci. pbk 4  Int. sci. sylla bus bk 4 |  |

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|  |  |  |  | some farm activities.   It enables a farmer to get loans from banks. |  |  |  |  |  |  |  |  |

VICTORIOUS EDUCATION SERVICE

PRIMARY FOUR SCIENCE SCHEME OF WORK FOR TERM II, 2023

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| **W K** | **P D** | **THEME** | **S/TOPIC** | **CONTENT** | **SUBJ. COMP’NCES** | **LANG. COMP’NCES** | **METHODS** | **ACTIVITIES** | **IND. OF LSV** | **INST.MAT** | **REF.** | **REM** |
| **1** | **1** | **OUR FOOD** | **CLASSES OF FOOD** | **CLASSES OF FOOD**  **-**Go Foods  **-**Grow Foods  **-**Glow Foods **Examples of each class of food**.  **Go foods**:- maize, cassava , millet, bread **Grow foods:-** fish, meat  , chicken, beans  **Glow foods:-** fruits fresh leafy vegetables | **The learner;**  -states classes of food  -gives examples of class of food | **The learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to classes of food. | Brain storming Guided discovery Class discussion | -reading and spelling words,  -drawing the examples of the given foods. | Awaren ess, Care, appreci ation | millet seeds cassava tubers, maize flour | Mk inte grat ed scie nce bk 4 |  |
| **1** | **2** | **Our food** | **food values** | **Food values**  These are useful food substances that the body needs to live. **examples;**carbohydrat es  **-**vitamins  **-**proteins  **-**fats and oils  **-**mineral salts  **Carbohydrates**  **-**They are also called energy giving foods.(GO- foods)  **-**They provide energy | **The learner;**  **-**names the food values  -defines carbohydrates  -gives examples to carbohydrates  -state the importance of carbohydrates to the body. | **Thelearner;** Pronounces spells, reads, writes and demonstrates meaning of words related to food values and carbohydrates. | Brain storming Guided discovery Class discussion observatio n | Observing some examples of food stuffs rich in carbohyd rates. | -  Fluency  , -  observa tion, - care, awaren ess | millet seeds cassava tubers, maize flour | Mk inte grat ed scie nce bk 4 |  |

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|  |  |  |  | to the body. **Examples of food stuffs that are rich in carbohydrates**  Millet, maize, cassava, sugar, bread, sweet  potato. |  |  |  |  |  |  |  |  |
| **1** | **3** | **Our food** | **vitami ns and minera l salts** | **vitamins and mineral salts**  These are healthy giving foods. **examples of mineral salts;**  **-**calcium  **-**phosphorous  **-**magnesium  **-**iodine  **-**iron etc.  **Food staffs ( sources of mineral; salts)**  **fruits**  **-**milk, liver, iodized salt, Vegetables, egg yolk, cereals, ripe banana, corns, etc.  ***examples of vitamins;***  **-**vitamins are given names of alphabet from A to E  i.e. **Vitamin A,B,C,D,E sources of**  **vitamins/food stuffs with vitamins** | **The learner**;  **-**names food stuffs that are rich in mineral salts and vitamins.  **-**defines vitamins and mineral salts  **-**identifies some names given to minerals salts and vitamins | **The learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to mineral salts and vitamins  heat energy to the body | Brain storming Guided discovery Class discussion observatio n | Observing some examples of food stuffs rich in carbohyd rates. | Fluency  ,  appreci ation, care. | iodized salt fruits leafy  vegetabl es | Mk inte grat ed scie nce bk 4  P.4  curr icul um |  |

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|  |  |  |  | fruits, leafy vegetables Yoghurt, carrots, etc. |  |  |  |  |  |  |  |  |
| **1** | **4** | **Our food** | **Food values** | **PR0OTEINS, FATS AND OILS**.  **proteins**  -Proteins are body building foods. ***uses of proteins***  -they build body cells  -they help to repair body tissues. **sources/ foods rich in proteins**  fish, meat, eggs, beans, chicken ***uses of proteins***  -they build body cells  -they help to repair body tissues. **sources/ foods rich in proteins**  fish, meat, eggs, beans, chicken **Fats and oils;** These are energy giving foods that  provide ***sources/ foods that are rich in fats and oils***  simsim, meat | **The learner**;  **-**names food stuffs that are rich in proteins  **-**defines proteins and fats and oils.  **-**identifies food stuffs rich in fats and oils | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to fats and oils and proteins | Brain storming Guided discovery Class discussion observatio n | Observing some examples of food stuffs rich in carbohyd rates | Fluency  ,  appreci ation, care | iodized salt fruits leafy  vegetabl es | Mk inte grat ed scie nce bk4 4 |  |

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| 1 | **5** | **Our food** | **Deficie ncy diseas es** | **deficiency diseases;**  **-**These are diseases one gets when their bodies does not have enough of essential food values **Examples of deficiency diseases**  -Night blindness  -Kwashiorkor  -Beriberi  -Pellagra  -Marasmus  -Scurvy  -Anaemia  -Goitre  -Rickets  **KWASHIORKOR**  **-**it is cause by lack of enough proteins in the body  **signs of a child with**  kwashiorkor  **-**swollen belly  **-**swollen moon face | **The learner**;  **-**defines deficiency diseases  **-**identifies examples of deficiency diseases  -states the cause of kwashiorkor | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to deficiency diseases | Brain storming Guided discovery Class discussion observatio n | Observing some examples of food stuffs rich in carbohyd rates. | Fluency  ,  appreci ation, care | iodized salt fruits leafy  vegetabl es | Mk inte grat ed scie nce bk4 |  |

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| **1** | **6** | **Our food** | **maras mus and night blindn ess** | **MARASMUS**  **-**it is caused by lacked of enough carbohydrates in the body  **signs of a child with marasmus**  **-**swollen belly  **-**always hungry  **-**the face looks like that an old person  **-**wasted muscles(thin body) | **The learner**;  -states the cause of kwashiorkor  -states the signs of marasmus in children  -states the cause of night blindness  -gives ways of preventing marasmus and kwashiorkor | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to night blindness, marasmus | observatio n, guided discovery, guided class discussion question and answer | Observing a chart showing a child suffering from marasmus | Fluency  ,  appreci ation, care | charts with children sufferin g from maras mus |  |  |
|  |  |  |  | **NIGHT BLINDNESS**  it is also called poor night vision  -it is caused by shortage of **vitamin A** in the body **prevention of night blindness**  -eat foods rich in vitamin A e.g. cereals |  |  |  |  |  |  |
| **2** | **1** | **Our food** | **scurvy** | **SCURVY**  -This is a deficiency disease caused by lack of vitamin **C signs of scurvy**  **-**bleeding of the gums  - poor healing of | **The learner**;  -states the cause of kwashiorkor  -states the signs of marasmus in  children | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of | observatio n, guided discovery, guided class  discussion question | Observing on a chart showing different  signs 0f beriberi | Fluency  ,  appreci ation, care | charts with children sufferin g from scurvy | Mk int. sci. pbk 4 |  |

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|  |  |  |  | wounds  **BERI BERI**  -It is caused by shortage of vitamin B1 in the body.  **signs of Beriberi**  -swelling of arms and legs  -muscle spasms | -states the cause of night blindness  -gives ways of preventing marasmus and kwashiorkor | words related to scurvy and beriberi | and answer |  |  |  | Pry. 4 sci. curr.  New fount. Pbk 4 |  |
| **2** | **3** | **Our food** | **Goitre** | **Goitre**  This is the swelling if the thyroid gland in the throat.  it is caused by lack of enough of iodine mineral  **Rickets**  This a deficiency diseases caused by lack of enough of vitamin **D**  ***signs of rickets*** in children  -bones become soft and swollen  -bones become and form a bow-like shape ***prevention of rickets***  **-**feed on feeds rick in vitamin D  **-**expose the body on sunshine | **The learner**;  -states the cause of kwashiorkor  -states the signs of marasmus in children  -states the cause of night blindness  -gives ways of preventing goiter and rickets. | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to rickets and goitre. | Observatio n guided discovery,  guided class discussion  question and answer | Observing on a chart showing different signs 0f rickets | Fluency  ,  appreci ation, care | charts with children sufferin g from rickets | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| **2** | **4** | **Our food** | **anemia** | **Anaemia**  tis sis a body condition caused by lack of iron or blood in the body. **signs of anaemia**  **-**pale gums  **-**white finger nails  **-**extreme body weakness and tiredness. | **The learner**;  -states the cause of anaemia  -states the signs of anemia  in children | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to anemia | observatio n, guided discovery, guided class discussion question and answer | Observing on a chart showing different signs 0f anemia | Fluency  ,  appreci ation, care | charts with children sufferin g from anemia | Mk int. sci. pbk 4  Pry. 4 sci. curr. |  |
| **2** | **5** | **Our food** | **Food contamination** | **How food gets contaminated**;  -serving food on dirty  -serving food with dirty hands  -leaving cooked food uncovered  **Dangers of food contamination**  -easy spread of diarrhea diseases. prevention of food contamination  **-**washing hands before handling food  **-**serving food in clean containers  **-**keeping left over food well covered | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to food contamination. | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to food contamination | observatio n, guided discovery, guided class discussion question and answer | Observing on a chart showing different ways we prevent food contamin ation. | Fluency  ,  appreci ation, care | charts showin g ways of prevent ing food contam ination | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| **2** | **6** | **Our food** | **Preparation of a simple local dish at home.** | **How to prepare matoke locally** steps:  **-**peeling  **-**boiling  **-**steaming **note;**  Matoke can also be prepared by roasting. | **the learner;** demonstrates ways of preparing matoke at home. | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to major organs of the human body. | observatio n, guided discovery, guided class discussion question and answer | -peeling and practicin g preparing a local dish of matoke | self- discove ry, - accura cy,  self- esteem, care | Pictures showin g people peeling matoke knife, banan a, water, | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New  fount. Pbk 4 |  |
| **3** | **1** | **Human body organs** | **major organs of the body** | **Major organs of the body**  **-**eyes,  -ears,  -nose,  -brain,  kidney, -stomach (diagram) | **the learner;-** names the major body organs  **-**draws the structure that shows the major organs of the human body. | **the learner;** Pronounces spells, reads, writes and demonstrates meaning of words related to human body organs | observatio n, guided discovery, guided class discussion question and answer |  | self- discove ry, - accura cy,  self- esteem, care | a chart with d | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| **3** | **2** | **Human body organs** | **kidneys** | Human beings have two bean shaped kidneys.  **The structure of the kidneys.** | The learner;   1. Describes kidneys. 2. Draws and labels the parts of kidneys. | The learner;   1. pronounces,s pells,reads,writ es and demonstrates meaning of words related to kidneys | Brain storming Guided discovery Class discussion | Drawing the structure of the kidney | self- discove ry, - accura cy,  self- esteem, care | A chart showin g the structur e of the kidneys | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New  fount. Pbk 4 |  |
| **3** | **3** | **Human body organs** | **lungs** | **The lungs**  There are two lungs in the human body  **The structure of lungs** | The learner;   1. Draws and labels the structure of lungs. | The learner; Pronounces,sp ells,reads writes and demonstrates meaning of words related tolungs. | Brain storming Guided discovery Class discussion | Drawing the structure of the lungs | Critical thinking  Appreci ation  Fluency Care | An illustrati on of the lungs on a chart. | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| **3** | **4** | **Human body organs** | **The heart** | **The lungs**  The heart is located in the chest cavity between the lungs.  **Structure of the heart** | The learner;   1. Draws the structure of the heart. 2. Answers the given questions on the heart. | The learner; Pronounces,sp ells reads, reads writes and demonstrates meaning of words related to the heart. | Observatio n.  Guided discovery Class discussion | Drawing the structure of the heart | Fluency  Appreci ation  Care  Kindnes s | Drawin g diagra ms showin g lungs | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New  fount. Pbk 4 |  |
| **3** | **5** | **Human body organs** | **T he liver** | **The liver**  ⁻ This is found below the lungs in the abdominal cavity  ⁻ The liver produces bile which helps to break down food into small particles.  ⁻ | The learner;   1. Draws the structure of the liver. 2. Answers given questions on the liver | The learner; | Observatio n.  Guided discovery Class discussion | Observati on Drawing the structure of the liver. | Fluency  Appreci ation  Care  Kindnes s |  | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| **3** | **6** | **Human body organs** | **The stomach** | **The structure of the stomach**  ⁻ The stomach is one of the organs of the digestive system  ⁻ The stomach stores food for some time **Structure of the stomach** | **The learner;** 1draws the structure of the stomach  2.answers the questions | **The learner;** Pronounces,sp ells,read,writes and demonstrates words related to the liver. | Observatio n.  Guided discovery Class discussion | Drawing the structure of the stomach. | Drawin g diagra ms showin g lungs. | a chart with diagra ms of the stomac h | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |
| **4** | **1** | **Human body organs** | **The brain of the brain** | This is the soft organ protected by the skull. The brain controls all activities of the body **Structure**    **Functions of the brain** It stores information For thinking  For reasoning | The learner;   1. Draws the structure of the brain 2. Gives the functions of the brain. | The learner; Pronounces,sp ells,read,writes and demonstrates words related to the brain | Observatio n.  Guided discovery Class discussion | Drawing the structure of the brain | Critical thinking Appreci ation fluency | a chart with diagra ms of the brain | Mk int. sci. pbk 4  Pry. 4 sci. curr.  New fount. Pbk 4 |  |

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| 4 | 2 | **Human body organs** | **How the Human body Works** | **How the human body works**   The human body takes in food through the mouth oxygen during breathing.  Breathing is the taking in and out of oxygen.   The human body transports food and oxygen to different parts of the body.   The human body uses food and oxygen to get energy. Food and oxygen is moved around the body by the blood.   The human body removes wastes **Examples of waste materials**   Urine   sweat   carbon dioxide | **The learner;**   1. describes how the body works. 2. Mentions the examples of waste materials. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related to how the human body works. 2. Reads, internalize and writes texts and questions to relatedhow the human body works. | Guided discovery  Discussion  observatio n | Describin g how the human body works.  Mentionin g example of waste material of the human body. | Appreci ation.  Care  Awaren ess  Fluency  Concer n | Chalkb oard illustrati on. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **4** | **3** | **The teeth** | **Sets of teeth** | **Sets of teeth**   Humans beings grow two sets of teeth in their life time namely,   Milk teeth | **The learner,**   1. Describes the sets of teeth. 2. Describes the milk teeth | **The learner;**   1. Pronounces, spells, reads writes and   demonstrate s meaning of | Guided discovery  Discussion | Describin g the sets of teeth i.e.  The milk teeth and | Appreci ation.  Care | A chart showin g sets of teeth | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  |  Permanent teeth  **Milk teeth**   Milk teeth are the first set of teeth in children.   They are twenty in number   Theystart appearing in children at the age of 5-9months   Milk teeth start falling out at the age of 5-6 years   The incisors are the first to grow and the first to fall out | and the permanent teeth | words related sets of teeth e.g. Milk teeth, permanent, canine, incisors and premolars.  2. Reads, internalize and writes texts and questions related to sets of teeth. | observatio n | permane nt teeth. | Awaren ess  Fluency  Concer n |  | Int. sci. syllab us bk 4 |  |
| **4** | **4** | **The teeth** | **Types of teeth** | **Types of teeth**   1. Canines 2. Incisors 3. Pre Molar iv)Molars **Canines**    Canines are sharp, and pointed.   They are used for tearing food. | **The learner;**   1. States the types of teeth. 2. Describes the canine and incisor teeth. 3. States the importance of the canine and   incisor teeth. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related types   of teeth e.g. canine, | Guided discovery  Discussion  Observatio | Stating the types of teeth.  Describin g the incisors  and canine | Appreci ation.  Care  Awaren ess | A chart showin g incisors and canine teeth. | Mk. Int. sci. pbk 4  Int. |  |

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|  |  |  |  | **Structure of a canine tooth**     **Adaptation to its function**   They are sharp and pointed for tearing food  **Incisors**   They are chisel shaped   They have one root  **Structure of an incisor**    **Adaptation to its function**   They are chisel shaped for cutting.   There are four  incisors in each jaw. | 4. Describes the adaptation of the canines and incisor teeth to their function. | incisors, molars and premolars.  2. Reads, internalize and writes texts and questions related to sets of teeth. | n | teeth.  Stating the functions of the canine and incisor teeth.  Describin g the adaptati ons of the canines and incisor teeth to their functions. | Fluency  Concer n |  | sci. syllab us bk 4 |  |

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| **4** | **5** | **Types of teeth** | **Pre molars And Molars** | **Pre molars**   They are broad at the top with two cups/ridges   They have one root.  **Structure of a pre molar**    **Adaptation to its function**   They have broad tops with ridges for crushing food.   * **Molars**    They have broad wide tops with 3-5 ridges.  **Structure of a molar**  **Adaptation to its function**   They have broad tops with cups for crushing food | **The learner;**   1. Describes the premolars and molar teeth. 2. States the importance of the pre molars and molars teeth. 3. Describes the adaptation of the molars and pre molars to their function. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related types of teeth e.g. canine, incisors, molars and premolars. 2. Reads, internalize and writes texts and questions related to sets of teeth. | Guided discovery  Discussion  Observatio n | Describin g the molars and pre molars teeth.  Stating the functions of the molars and pre molars teeth.  Describin g the adaptati ons of the molars and pre molars teeth.  to their functions. | Appreci ation.  Care  Awaren ess  Fluency  Concer n | A chart showin g molars and pre molars teeth. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **4** | **6** | **The teeth** | **Region s of the teeth** | **Regions of a tooth**   A tooth has three regions namely;   1. The crown 2. The neck 3. The root | **The learner;**  2. Identifies the regions of the tooth.  3. Draws and labels the regions of the | **The learner;**  1. Pronounces, spells, reads writes and demonstrate s meaning of words | Guided discovery  Discussion | Identifyin g regions of the tooth.  Drawing | Appreci ation.  Care | A chart showin g regions of the tooth | Mk. Int. sci. pbk 4 |  |

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|  |  |  |  |  | tooth. | related regions of the tooth  2. Reads, internalize and writes texts and questions related to  regions of the tooth | Observatio n | and labeling the regions of the tooth | Awaren ess  Fluency  Concer n |  | Int. sci. syllab us bk 4 |  |
| **5** | **1** | **The teeth** | **Parts of a tooth** | **Internal structure of a tooth**    **The enamel The dentine The pulp cavity Nerve endings**  **Blood capillaries** | **The learner;**   1. Draws and labels parts of a canine and molar tooth | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related parts of the tooth 2. Reads, internalize and writes texts and questions related to parts of the   tooth | Guided discovery  Discussion  Observatio n | Drawing the structure of the tooth.  Labeling the parts of a tooth. | Appreci ation.  Care  Awaren ess  Fluency  Concer n | A chart showin g the structur e of a tooth | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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| **5** | **2** | **The teeth** | **Parts of the tooth** | **Functions of parts of at tooth**  **The enamel**   It is the hardest outer part of the tooth.   The enamel protects the inside part of the tooth to wear and tear.  **The dentine**   It is the biggest part of a tooth.   The dentine contains the pulp cavity and living cells through which it receives food.  **The pulp cavity**   It is the sensitive part of the tooth   The pulp cavity contains blood vessels and nerves which are sensitive to heat coldness and pain  **Nerve endings**   They pick nerve signals/ messages and send them to the brain for interpretation.  **Blood capillaries**  They send blood, | **The learner’**   1. States the functions of parts of the tooth. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related parts of the tooth 2. Reads, internalize and writes texts and questions related to parts of the tooth | Guided discovery  Discussion  Observatio n | Stating the functions of parts of the tooth  Labeling the parts of a tooth. | Appreci ation.  Care  Awaren ess  Fluency  Concer n | A chart showin g the structur e of a tooth | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | oxygen and digested food to the tooth. |  |  |  |  |  |  |  |  |
| **5** | **3** | **The teeth** |  | **Care of our teeth**   We need to care for our teeth and keep them healthy.   The general cleanliness for our mouth is called **oral hygiene.**  **Ways of cleaning for the teeth**   Brushing the teeth every after a meal to remove the food remains.   By dental flossing to remove food particles between the teeth.  **Things we use to care for our teeth**   Tooth brush   Tooth paste   Dental floss   Clean water | **The learner;**   1. Identifies the ways of caring for the teeth. 2. States the materials used to clean teeth. 3. Draws the materials used to clean teeth. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related to care for the teeth. 2. Reads, internalize and writes texts and questions related to care for the teeth. | Guided discovery  Discussion  Observatio n  Illustration  Demonstra tion | Identifyin g the ways of caring for the teeth.  Stating the materials used to clean teeth.  Drawing the materials used to clean teeth. | Appreci ation.  Care  Awaren ess  Fluency  Concer n | A tooth brush, tooth paste, dental floss. | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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| **5** | **4** | **The teeth** | **Diseas es of the teeth** | **Diseases of the teeth**   1. Tooth decay( dental caries) 2. Gum diseases(gingivitis) 3. Dental plague 4. Periodontal disease   **Refer to the table of diseases of the teeth in the lesson notes.**  **Disorders of the teeth**   * + **Disorders of the teeth**  1. Poor growth of teeth (malocclusion) 2. broken or cracked teeth    * **Control of teeth disorders**    Avoid biting hard things.  Avoid rough games. | **The learner;**   1. Outlines the diseases of the teeth. 2. States the signs and symptoms of the diseases of the teeth. 3. Mentions the ways of preventing the diseases of the teeth**.** 4. Identifies the disorders of the teeth and how they can be controlled. | **The learner;**   1. Pronounces, spells, reads writes and demonstrate s meaning of words related to diseases of the teeth. 2. Reads, internalize and writes texts and questions related to diseases of the teeth. | Guided discovery  Discussion  Observatio n  Illustration  Demonstra tion | Outlining the diseases of the teeth.  Stating the signs and symptoms of diseases of the teeth.  Mentionin g ways of preventin g diseases of the teeth | Appreci ation.  Care  Awaren ess  Fluency  Concer n | Pictures of decaye d teeth | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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| **5** | **5** | **Sanita tion** | **Import ance of good sanitati on.** | **sanitation**   Sanitation is the general cleanliness of our environment.   * **Importance of good sanitation in our environment**    Carrying out proper sanitation keeps the place free from vectors   Proper sanitation prevents the diseases in an area   Proper sanitation prevents bad smell.  Proper sanitation  preven**tswater contamination** | The learner;   1. Defines sanitation. 2. States the activities that can be done to promote propersanitation   .   1. gives the importance of good sanitation in our environment | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to sanitation 2. Reads, internalize and writes texts and questions related to sanitation. | Guided discovery  Discussion  Observatio n  Illustration  Demonstra tion | Answers questions given on how to promote sanitation. | Apprecia tion.  Awarene ss  Care. | Water Broom hoe rake | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |
| **5** | **6** |  | Germs and Diseas es | What are germs? Germs are small organisms that cause diseases.  Note;  Wecannot see germs with our naked eyes(a microscope is used to detect germs)  E**xamples of germ**s Virus  Bacteria | The learner; Defines germs.   1. States examples of germs. 2. Mentions places where germs can be found. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to sanitation. 2. Reads, internalize and writes texts and questions related to sanitation. | Guided discovery  Discussion  Observatio n  Illustration | Answerin g questions. Reading and writing work. | Apprecia  tion. Awarene ss  Care. | Workca rds | Mk. Int. sci. pbk 4  Int. sci. syllab us bk 4 |  |

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|  |  |  |  | Protozoa Fungi  **Places where germs can be found(habitats for germs)**  In un boiled water In the soil  In air  In human and animal faeces On plants  In human body and other animals  In dirtyplaces like latrine |  |  | Demonstra tion |  |  |  |  |  |
| **6** | **1** |  |  | **Ways through which germs are spread.**  Through drinking contaminated water.  Through eating contaminated food. Through bites of insects and animals.  Through breathing | **The** learner;   1. Mentions the ways through which germs are spread 2. names the diseases spread through the given ways on the table. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to sanitation. 2. Reads, internalize and writes texts and questions related to sanitation. | Discussion  Observatio n  Illustration  Demonstra tion | Mentionin g ways through which germs are spread | Audibilit y Critical thinking fluency | A chart showin g the stages in the 4fs. | Comp rehen sive scien ce book 4  Primar y curric ulum book4  . |  |

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|  |  |  |  | contaminated air. Through contact with people having germs.  **Table showing ways germs are spread and their causative**  **agents** |  |  |  |  |  |  |  |  |
| **6** | **2** | **sanita tion** | **germs** | **The 4fs germ path and economic importance**  Is the way germs are spread by houseflies through faeces,flies  ,food fingers(4fs) Flies carry germs on their legs wings and hairy bodies from faeces onto our  food. | **The** learner;   1. writes 4fs in full. 2. describes the stages of the 4fs path. | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to4fs. 2. Reads, internalize and writes texts and questions related to 4fs. | Discussion  Observatio n  Illustration  Demonstra tion | Describin g stages in the 4fs germ path. | audibilit y Critical thinking fluency | Chart showin g the 4fs germ path | Comp rehen sive scien ce book 4  Primar y curric ulum book4 |  |

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|  |  |  | **diseas es** | **Diseases**  A disease is an illness of the body which brings dis orders **Diseases spread due to 4fs.**  Typhoid Diarrhea Bilharzia. Dysentery  malaria | **The** learner;   1. defines the term disease. 2. lists diseases that are spread through 4fs | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to diseases spread through 4fs. 2. Reads, internalize and writes texts and questions related to 4fs. | Discussion  Observatio n  Illustration  Demonstra tion | Listing diseases that are spread through 4fs. | audibilit y Critical thinking fluency | Work cards showin g disease s spread through 4fs. | Comp rehen sive scien ce book 4  Primar y curric ulum book4 | w |
| **6** | **3** |  | **Ways of protect ing agains t germs and diseas es** | **Ways of protecting against germs and diseases**  Keeping our homes and school clean. Cleaning and covering latrines.  Keeping our kitchen clean.  Covering our food  properly. | The learner;   1. mentions Ways of protecting against germsand diseases | **The learner;**   1. Pronounces, spells, reads writes and demonstrates meaning of words related to protection against germs and diseases 2. Reads, internalize and writes texts and questions related to germs and | Discussion  Observatio n  Illustration  Demonstra tion | .mentioni ng the Ways of protectin g against germsan d diseases | audibilit y Critical thinking fluency | environ ment | Comp rehen sive scien ce book 4  Primar y curric ulum book4 |  |

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|  |  |  |  | Washing hands before eating food.  Washing and ironing clothes and beddings. Cutting tall grass  around our homes. |  | diseases |  |  |  |  |  |  |