**PRIMARY FOUR**

**INTEGRATED SCIENCE SCHEME OF WORK**

**TERM ONE**

**2013**

**OEKE . D, KABUNGA .G, EPAU. P AND OKELLO .R**

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| **Wk** | **pd** | **Theme** | **Topic** | **Sub-topic** | **Subject competence** | **Language competences** | **Content** | **Suggested activities** | | **Methods** | **Life skills** | **References** | **Remarks** |
| 1 |  | Holiday work |  |  |  | Read and write corrections | Holiday work | Drawing  Labeling parts. | | Observation  Group discussion | Creative thinking |  |  |
| 2 | 1 | The world of living things | Plant life  Plant life  Plant life | Types of plants  Structure of a flowering plant.  Structure of a flowering plant. | The learner;  Identifies the different plants in the environment.  Groups the plants  Identifies the external parts of a flowering plant.  Labels the parts of a flowering plant. | Names the plants in the environment  Groups plants as examples of each.  Names the different parts of a flowering plant  Draws and labels with correct spelling. | **Non-flowering plants**  Examples of non-flowering plants  **Flowering plants**  Examples of flowering plants  **Parts of a flowering plant.** | Naming plants in the environment.  Grouping plants.  Drawing and labeling of the parts of a plant.  Drawing and labeling of the parts of a plant. | | Observation  Nature walk  Discussion  Observation  Discussion  Observation  Discussion | Creative thinking  Critical observation  Critical observation  Effective communication.  Decision making  Critical observation  Effective communication.  Decision making | Integrated science bk 4 syllabus pg 1-2  Mk bk 4 pg  Fountain bk 4 pg  Mk integrated primary science pg 24  Mk integrated primary science pg 24 |  |
|  | 2 |  | Plant life | Types and function of each part of the plant..  Leaves | Discusses the functions of the different parts. | Reads and writes short notes about functions of leaves. | Functions of each part of the plant.  **Leaves**  The parts of a leaf. | Picking and grouping leaves.  Discussing uses of each part of the plant. | | Nature walks.  Discussion. | Critical observation  Effective communication  Decision making | Mk integrated primary science pg 24 |  |
|  | 3 |  | Plant life | Leaf venation | Identifies the arrangement of veins in a leaf. | Names the type of leaf venation. | **Leaf venation.**  **Types of leaves** | Picking and grouping leaves. | | Nature walks.  Discussion | Critical observation  Effective communication | Mk integrated primary science pg 24 |  |
|  | 4 &5 |  | Plant life | Types of leaves | Identifies the different types of leaves | Reads and writes short notes about each type of leaf venation. | Examples of simple and compound leaves. | Discussing the differences between types of flowers | | Nature walks. | Decision making |  |  |
|  | 6 |  | Plant life  Plant life | Photosynthesis  Photosynthesis | Identifies the factors necessary for photosynthesis  Discusses the importance of photosynthesis to the environment. | Reads and spells the words correctly.  Writes the importance of photosynthesis . | **Photosynthesis**  Meaning  Conditions for photosynthesis.  Products and bi-products.  Importance of photosynthesis in the environment. | Discussing factors for photosynthesis  Describing the process of photosynthesis.  Discussing factors for photosynthesis  Describing the process of photosynthesis. | | Observation  Experimentation  Discussion  Observation  Experimentation  Discussi | Critical thinking  Critical observation  Effective communication  Decision making  Critical thinking  Critical observation  Effective communication  Decision making | Mk integrated primary science pg 24  Mk integrated primary science pg 24 |  |
|  | 7 | The world of living things | Plant life | Leaves | The learners;  Discusses the importance of photosynthesis  Identifies the factors affecting transpiration.  Suggest ways plants reduce transpiration. | Reads and spells words correctly.  Writes short notes on transpiration. | **Transpiration**  Meaning  Importance of transpiration to the plant and environment  Factors affecting transpiration | Discussing the factors for transpiration.  Describing the process of transpiration | | Observation  Project methods | Creative thinking  Critical observation.  Effective communication. | Fountain science 4 |  |
| 3 | 1 |  | Plant life | Leaves | Discusses the uses of leaves to plants  Discusses the uses of leaves to people and other animals. | Reads and spells words correctly.  Writes short notes about leaves. | Uses of leaves to people and animals | Discussing the factors for transpiration.  Describing the process of transpiration | | Observation  Project methods | Creative thinking  Critical observation.  Effective communication. | Fountain science Bk 4 |  |
| 3 | 2 |  | Plant life  Plant life | Stems  Stems | Identifies the different types of stems.  Discusses the uses/importance of stems to plants and animals. | Names the different types of stems.  Draws different types of stems.  Reads, spells words and writes short notes about stems. | Stems  Types of stems.  Uses of stems to plants  Uses of stems to animals. | Drawing different types of stems.  Naming the stems.  Discuss the uses of stems.  Drawing different types of stems.  Naming the stems.  Discuss the uses of stems. | | Observation  Discussion  Observation  Discussion | critical thinking  Critical observation.  Discussion  critical thinking  Critical observation.  Discussion | Mk  Integrate science bk 4 pg 22-23  Mk  Integrate science bk 4 pg 22-23 |  |
|  |
|  | 3 |  |  | Roots | Identifies the systems and types of roots | Names the systems and types of roots. | Roots  Systems and types of roots | Drawing different systems and types of roots.  Naming the roots | |  | Critical observation |  |  |
|  | 4 |  |  | roots | Discusses the uses of roots to plants and animals | Reads, spells words and writes short notes abut roots. | Uses of roots to plants  Uses of roots to animals. | Discussing the uses of roots | |  | Creative thinking  Effective communication. |  |  |
|  | 5 |  | Plant life | Flowers | Identifies the parts of a flower.  Labels the parts of a flower.  Discusses the uses of a flower to plants and animals. | Names the parts of a flower.  Draws and labels with correct spelling. | Flowers  The parts of a flower;  Male and female.  Functions of each part.  Uses of flowers to plants.  Use of flowers to animals. | Drawing a flower.  Naming parts of a flower.  Discussing uses of flowers. | | Nature walk  Observation  Discussion | Critical observation  Creative thinking  Effective communication | Mk  Integrated primary science bk 4 pg 26-32 |  |
|  | 6 |  |  | Pollination | Describe the process of pollination. | Writes notes about types of pollinationpollination. | Pollination  Meaning of pollination  Types of pollination  Changes which occur in a flower after fertilization  What happens to the fertilization? | Reading about pollination | | Research  Discussion | Creative thinking | Mk  Integrated primary science bk 4 pg 26-32 |  |
|  | 7 |  |  |  | Identifies the agents of pollination. | Names the agents of pollination. | Agents of pollination | Describing the process of pollination | |  | Critical observation. |  |  |
| 4 | 1&2 | The world of living things | Plant life | Seeds | The learners;  Describes the structure of a seed | Draws and labels the different types of seeds | Seeds  The structure of seeds:- monocotyledonous and  Dicotyledonous seeds | Drawing and labeling the parts of differed seeds. | | Observation  Discussion | Creative thinking  Critical thinking | Integrate science syllabus Bk 4 pg 2 |  |
|  | 3 |  | Plant life  Plant life | Seed germination  Germination | Investigate the conditions needed for seed germination  Investigate the conditions needed for seed germination | Write short sentences about germination  Write short sentences about germination | Germination  What germination is  Conditions for seed germination  Types of seed germination | Sowing seeds  Observing changes and differences between differed seed.  Sowing seeds  Observing changes and differences between differed seed. | | Observation  Experimentation  Discussion  Observation  Experimentation  Discussion | Critical observation  Effective communication  Decision making  Critical observation  Effective communication  Decision making |  |  |
| Integrate science syllabus Bk 4 pg 2  Mk integrate science Bk 4 pg 33-38 |  |
|  | 4 |  | Plant life | Seeds  Uses of seeds | Investigate the conditions needed for seed germination  Identifies the different uses of plants/seeds.  Discusses the uses of plants. | Write short sentences about germination  Write short notes about uses of seeds  Reads and answers the questions correctly. | Uses of seeds to plants and animals.  Uses of seeds  To people and other animals  To plants  Topical exercise about plant life | Sowing seeds  Observing changes and differences between differed seed.  Discussing the importance of seed.  Answering oral and written exercises. | | Observation  Experimentation  Discussion  Discussion | Critical observation  Effective communication  Decision making  Creative thinking  Critical observation. | Integrate science syllabus Bk 4 pg 2  Mk integrate science Bk 4 pg 33-38 |  |
|  | 5 |  | Plant life | **Topical questions** | | | | | | | | | |
|  | 6&7 | The word of living things | Types of crops  Types of crops | Identifies crops  Groups the common crops.  Identifies crops  Groups the common crops. | Names the crops  Writes short notes about types of crops  Names the crops  Writes short notes about types of crops | Names the crops  Writes short notes about types of crops.  Names the crops  Writes short notes about types of crops. | Types  Cereal crops  Legume crops  Root crops  Fruit crops  Vegetable crops | Describing the types of crops.  Naming and grouping crops.  Describing the types of crops.  Naming and grouping crops. | Discussion  Observation  Discussion  Observation | | Critical observation  Creative observation  Creative thinking  Taking decision  Critical observation  Creative observation  Creative thinking | Fountain primary science bk 3 pg 24- 28    Fountain primary science bk 3 pg 24- 28 |  |
|  | Wk 5 | Mid term exam inations |  |  | Reading questions | Writing exams | Mid term exam |  |  | | Problem solving |  |  |
| 6 | 1 | The world of living things | Growing crops  Growing crops | Crop growing practice  Crop growing practice | The learners;  Groups crops into perennial and annual crops  Identifies the difference between the two groups.  Draws and labels the above crops. | Names the common crops  Reads and spells the words correctly.  Recites rhymes or poems about crops.  Names the common crops  Reads and spells the words correctly.  Recites rhymes or poems about crops | Groups of crops  Perennial crops  Meaning  Examples    Annual crops  Meaning  Examples | Grouping common crops into perennials and annual crops.  Grouping common crops into perennials and annual crops. | Observation  Discussion  Observation  Discussion | | Critical observation  Critical thinking | Mk primary agriculture bk 4 pg 22-27  Mk primary agriculture bk 4 pg 22-27 |  |
| Critical observation  Critical thinking |
| 6 | 2&3 |  |  | Garden tools | Identifies common tools equipment and materials.  Describes the uses of common tools  Draws and identifies garden tools. | Names the common garden tools.  Reads and spells the words correctly.  Draws and labels the garden tool.  Writes some notes about garden tools. | **GARDEN TOOLS**  Drawing and naming garden tools | Identifying common garden tools.  Describing the uses of garden tools. | Experimentation  Observation  Discussion | | Critical observation  Creative thinking  Decision making  Problem solving | MK primary agriculture  BK 4pg 22 – 27 |  |
|  |  |  |  | Garden tools  Garden tools | Identifies common tools equipment and materials.  Describes the uses of common tools  Draws and identifies garden tools.  Identifies common tools equipment and materials.  Describes the uses of common tools  `Draws and identifies garden tools. | Draws and labels the garden tool.  Writes some notes about garden tools. | Uses of different garden tools.  How to control/prevent garden tools from rusting. | Identifying common garden tools.  Describing the uses of garden tools.  Identifying common garden tools.  Describing the uses of garden tools. | Experimentation  Observation  Discussion  Experimentation  Observation  Discussion | | Critical observation  Creative thinking  Decision making  Problem solving  Critical observation  Creative thinking  Decision making  Problem solving | MK primary agriculture  BK 4pg 22 – 27  MK primary agriculture  BK 4pg 22 – 27 |  |
| 6 | 4 | The world of living things | Growing crops | Nursery bed | Describes the process of preparing and caring for crops in a nursery bed.  Identifies the the seeds plants planted in a nursery bed. | Reads and writes short notes about a nursery bed. | Making a nursery bed | Naming materials used in the preparation of a nursery bed. | demonstration | | Critical thinking | Mk primary agriculture  Bk 4 |  |
|  | 6$7 |  |  | Crop growing | Describe crop growing practices  Demonstrates some of the crop growing practices. | Names the crop growing practices  Reads and write the words correctly. | Crop growing practices  Land preparation  Ways of preparing land.  Garden tools used  Importance of preparing land. | Naming the crop growing practices.  Demonstrating some of the crop growing practices. | Demonstration  Observation  Discussion | | Creative thinking  Critical observation  Decision making  Problem solving | MK primary agriculture  BK 4pg 22 – 27 |  |
| 7 | 1 |  | Methods of growing crops | Crop growing | Describes crop growing methods  Demonstrates crop growing methods | Reads and writes short notes about broadcasting and row planting. | Selecting materials used in each method | Naming seeds planted in each method. | Demonstration  Observation | | Creative thinking | Mk Primary Agriculture Bk 4 |  |
|  | 2 |  |  | Crop growing | Describe crop growing practices  Demonstrates some of the crop growing practices. | Acts a dialogue about crop growing | Selecting viable planting materials.  Examples of planting materials.  Qualities of viable planting materials.  Importance of selecting seeds. | Naming the crop growing practices.  Demonstrating some of the crop growing practices. | Demonstration  Observation  Discussion | | Creative thinking  Critical observation  Decision making  Problem solving | MK primary agriculture  BK 4pg 22 – 27 |  |
|  | 3&4 | The world of living things | Growing crops | Crop growing practice | The learner  Write short notes about pests and diseases  Identifies signs and symptoms of diseases and pests  Describes how to control pest and diseases. | Describes common signs and symptoms of pest and diseases  Reads and writes words correctly | **Pests and disease**  What pests are  Example of pests  Part of the plant affected | Acting a dialogue about crop growing practice | Nature walk  Discussion | | Critical observation  Problem solving | Mk integrated primary science bk 4pg 14 – 15 |  |
|  | 5 |  |  | Topical questions |  |  |  |  | Question and answer  Discussion | | Critical observation  Problem solving | Mk integrated primary science bk 4pg 14 – 15 |  |
|  | 6 | Our environment | Weather change | Weather changes in around us | Describes the changes in weather  Describe the weather pattern.  Draws and names the weather instruments | Describes weather changes orally  Names parts of a thermometer | **Weather changes around us**  The meaning of the word weather  Element of weather  Weather instruments | Drawing and naming weather instruments.  Recording the daily weather changes | Observation  Discussion | | Critical observation | Mk integrated primary science bk 4 pg 78 – 84  Mk integrated primary science bk 4 pg 78 – 84 |  |
|  | 7 |  | Weather change | Types of weather | Draws simple weather charts | Draws the different weather charts. | **Types of weather**   * Cloudy * Rainy * Windy * Sunny | Making a weather chart | Observation  Discussion | | Creative thinking.  Critical observation | Mk integrated primary science bk 4 pg 78 – 84 |  |
| 8 | 1&2 |  | Weather change | Water | Discuss the properties of water  Describe the rain cycle | Reads  Writes and spell the words correctly  Draw and labels the water cycle | **Water**  Sources of water  Properties of water  Use of water  Rainfall (rain cycle)  Effects of rain | Drawing and label a rain cycle | Observation  Discussion  Experimentation | | Critical observation  Effective communication | Mk integrated primary science bk 4 pg 78 – 84 |  |
| 8 | 3 | Our environment | Weather changes | Clouds | The leaner;  Identifies the different types of clouds  Describes the different types of clouds | Draws and names the different types of clouds  Reads and spells the words correctly | Types of clouds  Nimbus  Cumulus  Stratus  Cirrus  Cumo-nimbus | Recording the weather  Naming the clouds | Observation  Discussion | | Creative thinking  Critical observation  Problem solving | Sharing our word bk 4 pg 20-23 (S.S.T) |  |
|  | 4 |  | Weather changes | Clouds | The leaner;  Identifies the different types of clouds  Describes the different types of clouds | Draws and names the different types of clouds  Reads and spells the words correctly | The effect of clouds on the environment  Weather chart | Recording the weather  Naming the clouds | Observation  Discussion | | Creative thinking  Critical observation  Problem solving | Sharing our word bk 4 pg 20-23 (S.S.T) |  |
|  | 5 |  | **Topical questions about weather** | | | | | | | | | | |
|  | 6 | Human health | Personal hygiene | Personal hygiene | States why we keep clean  Identifies ways f keeping clean | Discusses reasons why we keep clean.  Read and writes some notes. | Personal hygiene  **The meaning**  **The meaning**  **The importance of personal hygiene** | Collecting and naming.  Materials used to keep clean.  Practicing | | Demonstration  Observation  Discussion | Creative thinking  Self awareness  Assertiveness | Fountain primary science, bk. 3pg 99-105 |  |
|  | 7 |  | Personal hygiene | Personal hygiene  Dangers of personal hygiene | Demonstrates ways of keeping clean.  Discusses what can go wrong if we don’t keep clean.  Identifies the causes and mode of transmission of diseases. | Draws and labels thing used to keep clean. | **Ways of keeping personal hygiene.**  Dangers of poor personal hygiene  Diseases spread through poor personal hygiene.  Scables  Diarrhea  Typhoid | Practicing activities for keeping ourselves clean  Discussing the effects of poor personal hygiene. | | Demonstration  Observation  Discussion  Research  Discussion | Creative thinking  Self awareness  Assertiveness  Creative thinking  Self awareness  Self esteem  Assertive  Problem solving. | Fountain primary science, bk. 3pg 99-105  Fountain primary science, bk. 3pg 99-105 |  |
| 9 | 1 |  | Personal hygiene | Dangers of personal hygiene | Discusses what can go wrong if we don’t keep clean.  Identifies the causes and mode of transmission of diseases. |  | Ways these diseases are transmitted.  Tropical exercise about weather changes. |  | | Demonstration  Observation  Discussion | Creative thinking  Self awareness  Self esteem  Assertive  Problem solving. | Fountain primary science, bk. 3pg 99-105 |  |
|  | 2 |  |  | **Topical questions about personal hygiene** | | | | | | | | | |