|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **Meaning of digital devices**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Define the term “digital device”.
2. Manipulate digital devices
3. Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 39

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to discuss the meaning of the term “digital” and “devices” by searching in the dictionary and on the internet

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to write the meaning of the terms “digital” and “devices

**STEP 2**

Guide the learners to observe and identify the pictures in the learner’s book page 39

**STEP 3**

Learners to list the digital devices that they have identify in their exercise books

**STEP 4**

Guide the learners to draw the digital devices

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to come up with a list of digital devices found at home or take photographs of the digital devices

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **digital devices found in our locality**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify the various digital devices in his/her locality
2. Observe safety while handling the devices
3. Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

3.

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 40

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to recall the meaning of the term “digital” and “devices” and the examples of digital devices

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide the learners to write down various digital devices found at home in pictures or photographs and real ones found in school

**STEP 2**

Teacher to display the various digital devices in class

**STEP 3**

Guide the learners to observe and identify them

**STEP 4**

Ask learners to draw and name the devices displayed to them

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to find the difference between a laptop and a desktop computer

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **Parts of digital devices in our locality**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify different parts of digital devices in his/her locality.
2. Observe safety while handling the devices
3. Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

3.

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 40

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to recall the meaning of the term “digital” and “devices” and the examples of digital devices

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide the learners to observe the digital devices in the learner’s book page 41

**STEP 2**

Guide the learners to draw the picture in their exercise book

**STEP 3**

Guide the learners to identify the main parts of a computer – CPU, mouse, monitor, cable, keyboard, screen

**STEP 4**

Learners to watch a video clip of parts of a desktop computer from the internet

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to find out the names of the parts of the digital device in page 41 of the learner’s book in the Kiswahili language

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **Functions of various parts of a digital device**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. State the functions of the various parts of a digital device.
2. Observe safety while handling the devices
3. Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

3.

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 41

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to recall the parts of digital devices learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide the learners to observe and identify the various parts of a digital device again from the picture in learner’s book page 41

**STEP 2**

Guide the learners to discuss the functions of the various parts of the digital devices

**STEP 3**

Let the learners to present their findings to the class

**STEP 4**

Learners to write the functions of the various part of the digital devices in their exercise book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to recite the poem “my digital devices” on page 42 of the learner’s book

Guide them to share the message in the poem

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **Connecting parts of a digital device**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* State the functions of the various parts of a digital device.
* Demonstrate proper connection of parts of digital devices.
* Observe safety while handling the devices
* Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

3

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 42

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to recall the parts and functions of digital devices learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide the learners to observe a video clip of a person connecting parts of a digital device- desktop computer

**STEP 2**

Guide the learners to observe connection of the various parts of the digital device as demonstrated by the teacher

**STEP 3**

Guide the learners to connect parts of a device in class in groups and find if the device works

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to connect and operate a digital device at a community function

Ask them to take photographs and put them in their portifolios

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **proper use of digital devices**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* State the functions of the various parts of a digital device.
* Demonstrate proper connection use of digital devices in their day to day life
* Observe safety while handling the devices
* Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 43

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to study the pictures on page 43 of the Learner’s book.

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide the learners to explain how digital devices are used in the pictures.

**STEP 2**

Ask learners to name the safety precautions to take when using digital devices

**STEP 3**

Ask learners to talk to their deskmates on how a mobile phone works, how a message is sent, how a call is made, how to take photographs and record a video

**STEP 4**

Guide the learners to discuss on proper use of digital devices

Learners to present their findings to the class

**STEP 5**

Demonstrate to the learners how to use digital devices properly

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to make a poster to advice people on proper use of a digital device available in the locality

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **external parts of a digital device**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* State the functions of the various parts of a digital device.
* Model external parts of a digital device using the locally available resources
* Observe safety while handling the devices
* Appreciate the importance of digital devices in daily life

**KEY INQUIRY QUESTION (S)**

1. What are the main parts of a digital device?

2. What are the functions of the main parts of a computer?

3.

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, pictures of digital devices

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 45

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to recall parts of a digital device learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to name materials used to model external parts of a digital device.

* This promotes critical thinking

**STEP 2**

Guide the learners to carry out project 6 on page 45 of the learner’s book, by following the instructions given

Guide them to work in pairs

**STEP 3**

Guide them to model the external part of a mobile phone

* Communication and collaboration as learners work together

**STEP 4**

Ask learners to share experiences on modelling external parts of a digital device

**STEP 5**

Learners to display their artworks and comment on each other’s work

* Self efficacy as learners deep affection of their artworks

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to model external parts of a digital device with the help of a parent or a guardian.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **CODING – Meaning of coding**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Define the term “coding”.
2. Identify meaning of signs
3. Appreciate coded messages in daily life

**KEY INQUIRY QUESTION (S)**

1. What is coding

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, puzzle games, magazines, textbooks

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 47

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to discuss the meaning of the term “coding” by searching in the dictionary and on the internet

Guide the learners to write the meaning of the term coding

**LESSON DEVELOPMENT**

**STEP 1**

Display learning resources brought in class and pose questions meant to identify the various resources. (how are the items used in day to day life)

**STEP 2**

Organise learners into groups, ask each learner to say a riddle while members decipher

Lead a class discussion as learners present their group work on riddles

**STEP 3**

Display a phone, point out icons on the phone and ask what each icon represents

Guide the learners to understand that riddles and phone icons are a representation of something else or hidden information or message

**STEP 4**

Guide the learners to observe and identify the meaning of the signs on page 47 of the learner’s book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points ( meaning of coding)

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to decipher and compose riddles and state the meaning of the word coding

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **CODING – coded pattern**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Define the term “coding”.
2. Identify coded patterns.
3. Appreciate coded messages in daily life

**KEY INQUIRY QUESTION (S)**

1. What is coding

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, puzzle games, magazines, textbooks

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 48

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to discuss the meaning of the term “coded pattern” by searching in the dictionary and on the internet

Guide the learners to write the meaning of the term coded pattern

**LESSON DEVELOPMENT**

**STEP 1**

Introduce learning resources such as tennis balls, potted plants, magazines with Sudoku and crossword puzzles and smart phones

Organise learners into small groups, present each group with a ball, crossword and sudoku cutting

**STEP 2**

Guide the learners to discuss in their groups the pattern on the tennis balls and phone icons guided by questions

1. What shapes are on the tennis balls and smart phone?
2. What colours are the shapes and icons
3. How are the differently coloured shapes put on the ball?

**STEP 3**

Guide the learners to observe the Sudoku and crosswords cuttings guided y the questions such as

1. What shapes do you observe in the Sudoku?
2. How are the shapes arranged in the Sudoku?
3. How many small boxes made a medium box?
4. How many medium boxes make the whole Sudoku?

**STEP 4**

Guide the learners to observe the crossword puzzles and identify the patterns used in the puzzles

**STEP 5**

Ask groups to observe the pictures in the learner’s book page 48

Ask leading and guiding questions to enable learners identify the pattern on each picture

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to search for a Sudoku in mathematics on the internet or newspaper and play, learner to discuss the pattern in the sudoku

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: DIGITAL DEVICES

**SUB STRAND**:  **CODING – simple puzzle game**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Play simple puzzle games.
* Solve simple puzzle games
* Appreciate coded messages in daily life

**KEY INQUIRY QUESTION (S)**

1. What is coding

**LEARNING RESOURCES**

Computers desktops, mobile phones, laptops, tablets, puzzle games, magazines, textbooks

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 49

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In pairs, guide the learners to discuss the meaning of the term “coding” by searching in the dictionary and on the internet

Guide the learners to answer questions as you summarize the responses on the chalkboard

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to look at the pictures on page 49 of the learner’s book in pairs

Ask learners to talk about the pictures

**STEP 2**

Teacher to provide manila paper and guide learners to cut out the shapes in the pictures and make the things as in the pictures on page 50 of the learner’s book

**STEP 3**

Ask learners to name the shapes and number of each shape in each picture

**STEP 4**

Guide the learners to find farm animals from the puzzle in the learner’s book

**STEP 5**

Provide blocks of different shapes for learners to arrange and make patterns.

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to do play station in pairs in the school computer

In groups learners to discuss their experiences on coding games like play station

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **THE THREE STATE OF MATTER**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify the three states of matter.
2. Observe safety when working with different materials.
3. Show curiosity while categorising different materials according to their states.

**KEY INQUIRY QUESTION (S)**

1. What are the characteristics of matter?

2. How can we show that there is air around us?

**LEARNING RESOURCES**

Water in glass, a book, a stick, a stone, air in ballon, pictures of the 3 states of matter

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 52

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to display water in a glass, a book, a stick, a stone, balloons of different shapes and sizes, filled with air, water, containers, soil, to the class

**STEP 2**

Guide the learners to carry out activity 1 on page 52 of the learner’s book.

**STEP 3**

Let the learners answer the questions in the learner’s book

**STEP 4**

Guide the learners to identify the three states of matter

.

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to recite the poem on page 52 of the learner’s book

Ask learners to discuss the messages in the poem in pairs

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **characteristics of the three states of matter**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Investigate different states of matter to show their characteristics.
2. Observe safety when working with different materials.
3. Show curiosity while categorising different materials according to their states

**KEY INQUIRY QUESTION (S)**

1. What are the characteristics of matter?

2. How can we show that there is air around us?

**LEARNING RESOURCES**

Water in glass, a book, a stick, a stone, air in ballon, pictures of the 3 states of matter

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 53

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to recall the identity of the three states of matter learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into groups

Assemble the materials need for the activity 2 in the learner’s book page 53

**STEP 2**

Guide the learners to carry out activity 2, 3 and 4 to investigate the characteristics of gases, liquids and solid

**STEP 3**

Guide the learners to suggest the characteristics of gasses, liquids and solids

**STEP 4**

Learners to summarize the characteristics of gasses, solids and liquids as outlined in the results of the activities 2, 3 and 4

.

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to compare the characteristics of gases, solids and liquids

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **three states of matter in our environment**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Categorise substances in his/her environment into the three states of matter.
2. Observe safety when working with different materials.
3. Show curiosity while categorising different materials according to their states.

**KEY INQUIRY QUESTION (S)**

1. What are the characteristics of matter?

2. How can we show that there is air around us?

**LEARNING RESOURCES**

Water in glass, a book, a stick, a stone, air in ballon, pictures of the 3 states of matter

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 57

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the characteristics of the three states of matter learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Lead learners outside the classroom

Guide learners to carry out activity 5b

**STEP 2**

Ask learners to group substances that they see as solids, liquids or gases

**STEP 3**

Let them record in a table as guide by the teacher

**STEP 4**

Ask learners to discuss their experiences on uses of solids, liquids and gases at home

.

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to categorise objects as solids, liquids or gases at home so as to understand the features of each state of matter and categorise accordingly

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **safety precautions when handling different materials**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Observe safety when working with different materials.
2. Show curiosity while categorising different materials according to their states.

**KEY INQUIRY QUESTION (S)**

1. What are the characteristics of matter?

2. How can we show that there is air around us?

**LEARNING RESOURCES**

Water in glass, a book, a stick, a stone, air in ballon, pictures of the 3 states of matter

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 58

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the characteristics of the three states of matter learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Ask learners to write the dangers that can be caused by any of the three states of matter

**STEP 2**

Guide the learners to look at the pictures on page 58 of the learner’s book

**STEP 3**

Ask learners to name the precautions taken when handling different substances as shown in the pictures

**STEP 4**

Ask learners to list the precautions they should observe when handling solids, gases and liquids

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to categorise objects as solids, liquids or gases at home so as to understand the features of each state of matter and categorise accordingly identify dangers that they can cause

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **categorising different materials according to their states**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Observe safety when working with different materials.
2. Show curiosity while categorising different materials according to their states.

**KEY INQUIRY QUESTION (S)**

1. What are the characteristics of matter?

2. How can we show that there is air around us?

**LEARNING RESOURCES**

Water in glass, a book, a stick, a stone, air in ballon, pictures of the 3 states of matter

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 58

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the characteristics of the three states of matter learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to recall how to categorise substances in the environment into three states of matter learnt in the previous lesson

**STEP 2**

Organise learners in pairs, guide learners to research on the internet for digital games on matter

**STEP 3**

Lead learners to play digital games – states of matter millionaire game from the link provided by the teacher

**STEP 4**

Ask learners to share their experiences when playing the digital games used to demonstrate the characteristics of the three states of matter

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to draw and name different items in the three categories of matter

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **Properties of matter floating and sinking using different materials**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Demonstrate sinking and floating using different materials.
2. Appreciate use of floaters as life savers..

**KEY INQUIRY QUESTION (S)**

1. Why do some materials float and others sink?

2. How are floaters useful in our lives?

**LEARNING RESOURCES**

Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 60

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the states of matter and their properties learnt in the previous sub strand

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into groups; assemble all the materials required for the activity

(Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick)

**STEP 2**

Guide the learners to half fill a basin with water and drop various objects in water

**STEP 3**

Ask learners to take photographs and observe what happens to the materials

**STEP 4**

Learners to identify which objects floated and sink

Teacher to explain what it means to float and sink

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Learners to find out the objects that remain on the surface of water and those that go to the bottom of the container in their homes

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **Properties of matter – objects that can float and those that can sink**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify objects that can float and those that can sink in water.
2. Observe safety while handling devices
3. Appreciate use of floaters as life savers

**KEY INQUIRY QUESTION (S)**

1. Why do some materials float and others sink?

2. How are floaters useful in our lives?

**LEARNING RESOURCES**

Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 60

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall objects that remain on the surface of water and those that sink to the bottom of the container

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to search on the internet for a fun video on floating and sinking of different materials

**STEP 2**

Let the learners watch the video and write down different materials that sink and those that float

**STEP 3**

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to identify materials similar to the ones in the video in their immediate environment

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **Properties of matter – factors affecting floating and sinking**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify factors that affect floating and sinking of objects in water.
2. Observe safety while handling devices

Appreciate use of floaters as life savers

**KEY INQUIRY QUESTION (S)**

1. Why do some materials float and others sink?

2. How are floaters useful in our lives?

**LEARNING RESOURCES**

Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 61

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the items that float and sink in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into groups

Guide learners in groups to collect a basin half full of water

**STEP 2**

Guide learners to place normal and crushed bottle tops on water(normal bottle top will float while crushed tops will sink in water)

Ask learners to make a plasticine ball and place it on water.

Ask learners to shape the plasticine into a boat and place it on water.

Let them record what they see ( a plasticine ball will sink in water while plasticine shaped into a boat will float

Ask learners to take a video and photographs as they carry out the activity

**STEP 3**

Guide the learners to fill in table 5 copied in their textbooks

**STEP 4**

Organise learners into groups to carry out activity 4 on page 62 of the learner’s book.

Guide learners to fill in table 6 in their exercise books.

Let learners take a video and photographs as they carry out the activity 3 on page 61 of the learners book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Lead learners to recite the poem on pages 62-63 of the learners book

Guide them to identify and record the materials that sink and float in the poem

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **Properties of matter – making floaters using locally available materials**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Make a floater using locally available materials.
2. Observe safety while handling devices
3. Appreciate use of floaters as life savers

**KEY INQUIRY QUESTION (S)**

1. Why do some materials float and others sink?

2. How are floaters useful in our lives?

**LEARNING RESOURCES**

Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 60

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall objects that remain on the surface of water and those that sink to the bottom of the container

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into groups

Guide them to carry out activity 5 in the learner’s book page 63 on making floaters to sink

**STEP 2**

Ask learners to complete table 7 in the learner’s book and discuss the observation made

Ask learners to compare their results with other groups

**STEP 3**

Guide the learners to carry out activity 6 in the learner’s book on making sinkers to float

**STEP 4**

Ask learners to record and discuss the observation made

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to carry out the project on making a floater using locally available materials in groups.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **STATE OF MATTER**

**SUB STRAND**:  **Properties of matter – floaters as life savers**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Make a floater using locally available materials.
2. Observe safety while handling devices
3. Appreciate use of floaters as life savers.

**KEY INQUIRY QUESTION (S)**

1. Why do some materials float and others sink?

2. How are floaters useful in our lives?

**LEARNING RESOURCES**

Materials in the sorrounding, rubber tubes, bottle tops, basin of water, a key, piece of stick

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 66

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall how floaters and sinkers are made

**LESSON DEVELOPMENT**

**STEP 1**

In groups, guide learners to search on their digital devices for a video showing use of floaters as life savers during swimming

**STEP 2**

Lead the learners to fill in table 8 in the learner’s book page 67

**STEP 3**

Guide the learners to watch a video clip again and listen to the online teacher as he talks about life savers activities

**STEP 4**

Guide the learners to discuss experiences on use of floaters in a swimming pool

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to do the assessment exercise in the learner’s book page 68

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **FORCE AND ITS EFFECT**

**SUB STRAND**:  **Meaning of force**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* State the meaning of term “force”.
* Appreciate effects of force in everyday life.
* Observe safety precautions when dealing with force.

**KEY INQUIRY QUESTION (S)**

1. What is force?

2. What are the effects of force in everyday life?

**LEARNING RESOURCES**

Dictionary, internet, pictures, books, pens, ugali, plastic bottles, tyres, wheelbarrow

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 69

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to look at the pictures on page 69 of the learner’s book.

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to discuss their observations about the pictures

1. Picture a, the girl is pushing an empty box, therefore, requires little force
2. Picture b, the boy and girl are pushing a box of objects, therefore require lot of force
3. Picture c, boys are pushing toy cars
4. Picture d, the donkey is pulling a cart with water container

**STEP 2**

In pairs, guide the learners to discuss the meaning of the term “force” by searching in the dictionary and on the internet

**STEP 3**

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to draw and colour picture describing force(push or pull of a n object)

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **FORCE AND ITS EFFECT**

**SUB STRAND**: **Effects of force on an object**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate the effects of force on an object
* Appreciate effects of force in everyday life.
* Observe safety precautions when dealing with force

**KEY INQUIRY QUESTION (S)**

1. What is force?

2. What are the effects of force in everyday life?

**LEARNING RESOURCES**

Dictionary, internet, pictures, books, pens, ugali, plastic bottles, tyres, wheelbarrow

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 70

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the meaning of force discussed in the previous lesson.

**LESSON DEVELOPMENT**

**STEP 1**

Let learners push and pull objects like chairs, tables, pens and books in class and discuss their findings

**STEP 2**

Ask learners to suggest the effects of force on the objects they pushed and pulled

**STEP 3**

Guide the learners in writing the effects of force observed in activity 2

**STEP 4**

Guide the learners to share their experiences on effects of force on objects

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to demonstrate effects of force in the classroom showing how objects can start and stop movement using objects like pencils, shaping into kites and boats to show the shape of an object when force is applied

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **FORCE AND ITS EFFECT**

**SUB STRAND**: **Effects of force in everyday life**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate the effects of force on an object
* Appreciate effects of force in everyday life.
* Observe safety precautions when dealing with force

**KEY INQUIRY QUESTION (S)**

1. What is force?

2. What are the effects of force in everyday life?

**LEARNING RESOURCES**

Dictionary, internet, pictures, books, pens, ugali, plastic bottles, tyres, wheelbarrow

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 71

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to tell occasion when force has been of help in their day t day life

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to identify force at work in the pictures in activity 3 on page 71 of the learner’s book

1. Picture 1a – the learners are adding water to a pile of clay
2. Picture 1b - the learners are modelling different animals by stretching or compressing the clay
3. Picture 3a – learners are doing tug of war
4. Picture 3b - an ox cart pulling luggage
5. Picture 3c a boy is pushing a bicycle uphill
6. Picture 3d – a man is pulling a hand cart

**STEP 2**

Lead learners outside the classroom to the field

Ask learners to push tyres or wheelbarrow/ ride a bicycle in turns/do a tug of war

**STEP 3**

Ask learners to discuss the importance of force in the activities they have carried out

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to recite the poem on page 72 of the learner’s book

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **FORCE AND ITS EFFECT**

**SUB STRAND**: SAFETY PRECAUTIONS WHEN DEALING WITH FORCE

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate the effects of force on an object
* Appreciate effects of force in everyday life.
* Observe safety precautions when dealing with force

**KEY INQUIRY QUESTION (S)**

1. What is force?

2. What are the effects of force in everyday life?

**LEARNING RESOURCES**

Dictionary, internet, pictures, books, pens, ugali, plastic bottles, tyres, wheelbarrow

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 73

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask Learners to share their experiences when pushing or pulling objects

**LESSON DEVELOPMENT**

**STEP 1**

Ask learners to study the pictures on page 73 of the learner’s book.

**STEP 2**

Lead a class discussion on the safety precautions observed during the activities in the pictures

1. Picture a – the man is wearing gloves to protect the hands when pusg=hing a wheelbarrow and boots to protect the feet in case the jerrycans fell.
2. Picture – the girl is wearing a helmet to protect the head in case she falls
3. Picture c – the cricket player is wearing leg guards, head gear and gloves

**STEP 3**

Guide the learners to mention other safety precautions applied when dealing with force

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to recite the poem on page 72 of the learner’s book

Learners to do assessment exercise 10, learner’s book page 74

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **SOUND ENERGY**

**SUB STRAND**: PROPERTIES OF SOUND

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate that sound travels in all directions from a source.
* Demonstrate that sound can be reflected
* Appreciate sound in daily life situations

**KEY INQUIRY QUESTION (S)**

How does sound travel?

**LEARNING RESOURCES**

Sound producing instrument, digital device, stick, empty bottles, mobile phone,

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 75

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Lead learners to recall what they learnt in grade 1 on different sources of sound, ways of producing sound responses to sounds that alert us and effects of loud sound

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to carry out activity 1 in the learners book page 75

**STEP 2**

Guide the learners to repeat the activity such that each learner is blindfolded and can identify the direction sound is coming from

**STEP 3**

Let the learners discuss how sound travels

**STEP 4**

Guide the learners to compare their findings with the information on page 76 of the learner’s book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to go outside and record an evidence of sound travelling in all directions

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **SOUND ENERGY**

**SUB STRAND**: SOUND REFLECTION

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate that sound travels in all directions from a source.
* Demonstrate that sound can be reflected
* Appreciate sound in daily life situations

**KEY INQUIRY QUESTION (S)**

How does sound travel?

**LEARNING RESOURCES**

Sound producing instrument, digital device, stick, empty bottles, mobile phone,

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 76

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Lead learners to an empty classroom/school hall

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to carry out activity 2 on page 76 of the learner’s book in groups

**STEP 2**

Encourage them to record what they hear sing a mobile phone or tablet

**STEP 3**

Ask learners to replay the record and listen

**STEP 4**

Ask learners to suggest the meaning of sound reflection

Guide the learners to write meaning of sound reflection in their notebooks

Emphasis that sound reflection is the same as echo

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to explore other areas that learners can hear sound echo and let them record and listen to the reflections

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **SOUND ENERGY**

**SUB STRAND**: SOUND REFLECTION

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Make a sound producing instrument from locally available materials
* Demonstrate that sound travels in all directions from a source.
* Demonstrate that sound can be reflected
* Appreciate sound in daily life situations

**KEY INQUIRY QUESTION (S)**

How does sound travel?

**LEARNING RESOURCES**

Sound producing instrument, digital device, stick, empty bottles, mobile phone,

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 77

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Teacher to avail the items needed to Carry out activity 3 on page 77 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to maker a shaker with the materials provided

**STEP 2**

Guide the learners to sing, in groups common songs using the shaker they made

Encourage them to record what themselves as they sing using mobile phone/tablet

**STEP 3**

Ask learners to draw and name the sound producing instruments in activity 3 on page 77 of the learner’s book

**STEP 4**

Let learners name and draw sound producing instruments in their locality in English and in the local language

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to carry out project 8 at home with the help of their parents or guardians and bring their instruments at home

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **LIGHT ENERGY**

**SUB STRAND**: LIGHT TRAVELS IN A STRAIGHT LINE

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate that light travels in a straight line.
* Observe safety precautions while using light
* Appreciate the importance of light in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How does light move from the source to its surroundings?

2. How does light behave when shone on different materials?

**LEARNING RESOURCES**

cardboards, pieces of wood. Glue, table, candle, ruler, matchbox

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 79

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to mentionhow they use light at home and in school and explain how lights travels from the source to their books as they are doing their homework

**LESSON DEVELOPMENT**

**STEP 1**

Ask learners to assemble al the materials/requirement need for the activity to be carried out

**STEP 2**

Organise learners in pairs

Guide the learners to carry out activity 1 and record their observation

**STEP 3**

Ask learners to draw present what they saw in their groups to the class

**STEP 4**

Guide learners to write their observation on how light from the torch travels in a straight line

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to carry out activity again at home with the help of their parents or guardians

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **LIGHT ENERGY**

**SUB STRAND**: TRANSIMISSION OF LIGHT THROUGH DIFFERENT MATERIALS

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Demonstrate the transmission of light through different materials.
* Observe safety precautions while using light
* Appreciate the importance of light in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How does light move from the source to its surroundings?

2. How does light behave when shone on different materials?

**LEARNING RESOURCES**

cardboards, pieces of wood. Glue, table, candle, ruler, matchbox

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 81

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the movement of light through the cardboard carried out in the previous lesson

Ask learners to mention and explain how light travels in a straight line

Let learners identify materials in class that can be used to shine light on

**LESSON DEVELOPMENT**

**STEP 1**

Ask a learner in each group to look at a candle flame through the materials such as paper, cardboard, piece of wood

Guide the learners to see through all the materials

**STEP 2**

Ask learners to name the materials that allow light to pass through and those that do not allow light to go through

**STEP 3**

Ask learners to research on the internet the name given to the materials that allow light to go through them – TRANSLUCENT -

Guide learners in groups to share their findings

**STEP 4**

Ask learners to carry out activity 3b on page 81 of the learner’s book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to list the materials that allow light to pass through and those that do not allow light to pass through

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **LIGHT ENERGY**

**SUB STRAND**: TRANSPARENT, TRANSLUCENT AND OPAQUE

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Classify materials into transparent, translucent and opaque.
* Observe safety precautions while using light
* Appreciate the importance of light in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How does light move from the source to its surroundings?

2. How does light behave when shone on different materials?

**LEARNING RESOURCES**

cardboards, pieces of wood. Glue, table, candle, ruler, matchbox

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 82

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to recall the activities on transmission of light through different materials .

Ask the learners to list materials that allow light to pass through

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups

Ask them to discuss classify different materials into transparent, translucent and opaque

**STEP 2**

Ask learners to share their experiences on classifying different materials at school/class

**STEP 3**

Learners to list materials those are transparent, translucent and opaque

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to recite the poem on page 83 of the learner’s book on transparent, translucent and opaque materials

Ask learners to discuss the messages in the poem

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **LIGHT ENERGY**

**SUB STRAND**: making a projector screen of still images

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Make a projector screen of still images
* Observe safety precautions while using light
* Appreciate the importance of light in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How does light move from the source to its surroundings?

2. How does light behave when shone on different materials?

**LEARNING RESOURCES**

cardboards, pieces of wood. Glue, table, candle, ruler, matchbox

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 83

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to recall examples of translucent, transparent and opaque materials in their immediate environment

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups

Guide the learners to assemble materials need for making a projector screen

**STEP 2**

Guide learners to make a projector of still images by following the procedure on pages 83-84 of the learner’s book

Carry out discussions during the activity

* Communication and collaboration as learners work together

**STEP 3**

Learners to display their work and comment on each other’s work

* Self efficacy as learners have deep affection of their artworks

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to place a hook on a wall and hang the projector screen

Let learners pin some photographs taken during the lesson

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **HEAT ENERGY**

**SUB STRAND**: CONDUCTION OF HEAT

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Define the term conduction
* Demonstrate conduction of heat
* Appreciate heat energy in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How does heat move from one point to another in solids?

**LEARNING RESOURCES**

Source of heat, water, spoon, cooking stick, maize cob, pins, biro pen, ruler, needle,wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 86

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Using the key inquiry question, find out if learners know how heat travels in solids

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups

Guide the learners to set up experiment to investigate transfer of heat in solids

Activity 1a on page 86 of the learner’s book

**STEP 2**

Guide learners to discuss their findings and present to others in class

**STEP 3**

In pairs, guide learners to observe and talk about the picture on Page 87

Guide learners to discuss what is happening

Let them tell how heat moves from the jiko to the sufuria

**STEP 4**

Ask learners to suggest the meaning of the word “conduction”

Compare their findings on the meaning of conduction with the information in the learner’s book page 87

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to watch a video showing how conduction of heat takes place using digital devices

Ask learners to write the materials used in the set up they watched

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **HEAT ENERGY**

**SUB STRAND**: POOR AND GOOD CONDUCTORS OF HEAT

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify poor and good conductors of heat
2. Observe safety when handling materials
3. Appreciate heat energy in daily life

**KEY INQUIRY QUESTION (S)**

1. How does heat move from one point to another in solids?

**LEARNING RESOURCES**

Source of heat, water, spoon, cooking stick, maize cob, pins, biro pen, ruler, needle,wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 88

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

In groups guide learners to brainstorm on conduction of heat in solids

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to assemble materials in groups and discuss the procedure to follow in investigating good and poor conductors

**STEP 2**

Guide learners to safely set up the experiment to investigate poor and good conduction of heat.

Ask learners to feel the objects from the top using their fingers

**STEP 3**

Guide the learners to record their observation and answer the questions on page 88 of the learner’s book

**STEP 4**

Guide the learners to list the good and poor conductors of heaat

Ask learners to share their experiences on investigation of poor and good conductors of heat

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

In groups guide learners to walk around the school compound and the kitchen to investigate and record good and poor conductors of heat

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **HEAT ENERGY**

**SUB STRAND**: USES OF POOR AND GOOD CONDUCTORS OF HEAT

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify uses of poor and good conductors of heat
2. Observe safety when handling materials
3. Appreciate heat energy in daily life

**KEY INQUIRY QUESTION (S)**

1. How does heat move from one point to another in solids?

**LEARNING RESOURCES**

Source of heat, water, spoon, cooking stick, maize cob, pins, biro pen, ruler, needle,wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 89

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to share their experiences on the uses of poor and good conductors of heat at home

**LESSON DEVELOPMENT**

**STEP 1**

In groups, ask learners to observe pictures on page 89 of the learner’s book showing various uses of poor and good conductors of heat

**STEP 2**

Guide learners to discuss the uses of good conductors of heat in the pictures in activity 4

Ask the learners to write the other uses of good conductors of heat

**STEP 3**

Guide the learners to observe in pairs the pictures in the learner’s book page 90

Ask learners to write the uses of poor conductors of heat in the pictures

**STEP 4**

Guide learners to list all the uses of poor and good conductors of heat

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

In groups guide learners to carry out activities to show the uses of poor and good conductors of heat

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **HEAT ENERGY**

**SUB STRAND**: MAKING OVEN GLOVES

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Make oven gloves from locally available materials
* Observe safety when handling materials
* Appreciate heat energy in daily life

**KEY INQUIRY QUESTION (S)**

1. How does heat move from one point to another in solids?

**LEARNING RESOURCES**

Source of heat, water, spoon, cooking stick, maize cob, pins, biro pen, ruler, needle,wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 91

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the uses of poor conductors of heat learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups.

Guide learners to assemble the required materials

**STEP 2**

Ask learners to follow the steps outlined on page 91 of the learner’s book to make a pair of oven gloves

**STEP 3**

Demonstrate to learners how to make a circular shape of their hand on a piece of paper.

Guide the learners to transfer this shape to a piece of cloth and cut two similar designs

**STEP 4**

Guide the learners to place the pieces of cloth between two pieces of towel cut outs, pin them and stitch them.

Ensure that learners put on a thimble when stitching the pieces of oven cloths

**STEP 5**

Ask learners to share their experiences when making oven gloves

Ask learners put on their gloves and see if they work

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to make a pair of oven gloves at home using locally available materials and bring them to school

Guide learners to observe and select the best pair of oven gloves

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **HEAT ENERGY**

**SUB STRAND**: MAKING A FIRELESS COOKER IN CLASS

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Make a fireless coooker from locally available materials
* Observe safety when handling materials
* Appreciate heat energy in daily life

**KEY INQUIRY QUESTION (S)**

1. How does heat move from one point to another in solids?

**LEARNING RESOURCES**

Source of heat, water, spoon, cooking stick, maize cob, pins, biro pen, ruler, needle,wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 92

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the process of making oven gloves in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups.

Guide learners to assemble the required materials to make a fireless cooker

**STEP 2**

Ask learners to follow the steps outlined on page 92-94 of the learner’s book to make a fireless cooker

**STEP 3**

Demonstrate to learners how to make a fireless cooker

Lead a class discussion on every step

Encourage learners to take photographs during each step

**STEP 4**

Guide the learners to use the fireless cooker to keep their packed lunch warm

**STEP 5**

Let the learners display their fireless cookers.

Ask them to select the best fireless cooker in their group

Ask learners to share experiences when making a fireless cooker

Let them compare this experience and that of making a pair of oven gloves

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to make poster to advertise the sale of the best of their oven gloves and fireless cookers to the community

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: LEVER AS MACHINES

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify the lever as a machine used in everyday life.
2. Appreciate levers in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 96

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to observe the pictures in the learner’s book

Ask learners to name the activities in the pictures

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to identify and suggest the meaning of a lever

**STEP 2**

Organise learners into small groups.

Guide learners to assemble the required materials to for lesson activity

**STEP 3**

Guide the learners to identify the lever as a machine used in everyday life using the resources provided and steps on page 96 of the learner’s book

Guide each group to present to the class how the lever has made work easier

Ask learners to share their experiences on the observation made in the activity

**STEP 4**

Guide the learners to identify the tree parts of a lever – load, fulcrum and effort

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to search for more examples of levers in their immediate environment

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: LEVER USED IN OUR LOCALITY

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify the lever used in our locality in everyday life.
2. Appreciate levers in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 97

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the levers learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Ask learners to study the pictures on page 97 of the learner’s book

Guide learners to name and draw the levers in the pictures shown

**STEP 2**

Guide learners to name and draw other levers in their locality

**STEP 3**

Guide the learners to search on the internet other levers

Guide learners to write the list and confirm whether the levers are found in their locality

**STEP 4**

Guide the learners to match lever and their uses

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide the learners to name levers found at their home

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: **PARTS OF A LEVER**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Identify parts of a lever.
2. Appreciate levers in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 98

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to observe the picture in the learner’s book page 98.

Ask learners to identify the parts of the lever

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into pairs

Guide the learners to carry out activity 3 by following the steps outlined in the learner’s book page 98

**STEP 2**

Ask learners to identify the parts of the lever created in the activity using the coins and ruler

**STEP 3**

Guide the learners to draw a lever show the three parts of a lever

**STEP 4**

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

In pairs, ask the learners to recite the poem on a lever in the learner’s book page 99

Guide the learners to discuss the message in the poem

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: **MAKING A SEE SAW**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Make a see saw
2. Show curiosity to use levers to make work easier

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 99

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall parts of a lever studied in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to make a see saw using the plank of wood and Y shaped log

Ask learners to arrange the see saw as in the diagram on page 99 of the learner’s book

**STEP 2**

Ask learners to predict where to sit in order to balance with the friend.

Let them suggest reasons for their prediction

**STEP 3**

Guide the learners to identify the effort, load and fulcrum of the see saw

**STEP 4**

Guide them to discuss safety precautions to take when using a see saw

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Guide learners to share experiences on making and using a see saw at home.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: **Using levers to make work easier**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Appreciate levers in daily life situations
* Show curiosity to use levers to make work easier
* Use levers to make work easier

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 100

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Ask learners to recall making of a see saw learnt in the previous lesson.

Guide learners to observe the pictures on page 100 of the learner’s book

Ask learners in groups to identify the levers used in the pictures

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to discuss their experiences on using levers safely at home

**STEP 2**

Ask learners to demonstrate to the class safe use of available levers to make work easier

**STEP 3**

Guide the learners to use a wooden bar to roll a drum full of water from one point to another

Learners can take photographs as they carry out the activity

**STEP 4**

Guide learners to share their experience on use of levers in their locality

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Watch a video clip of uses of levers to make work easier

.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**:  **MACHINES**

**SUB STRAND**: **MAKING A BEAM BALANCE USING LOCALLY AVAILAV**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

1. Make a functional beam balance using the locally  
   available materials
2. Appreciate levers in daily life situations

**KEY INQUIRY QUESTION (S)**

1. How are levers useful in our everyday life?

**LEARNING RESOURCES**

Text book, 30-centimetre ruler, round pencil. Pictures, coins, plank of wood

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 101

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to recall the safe use of levers learnt in the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners into small groups.

Guide learners to assemble the required materials to for lesson activity

**STEP 2**

Guide learners to make a beam balance by following the procedure in the learner’s book

**STEP 3**

Ask learners to hang 2 plastic cups at equal distance from the fulcrum using strings

Let them write what they see

**STEP 4**

Guide learners to balance the cups using bottle tops

Let the learners write what they see

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Ask learners to suggest an example of beam balance in their locality

.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: **WEATHER AND THE SKY**

**SUB STRAND**: **BODIES IN THE SKY DURING THE DAY AND NIGHT**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Identify bodies observed in the sky during day and night
* Appreciate the importance of weather conditions within the locality

**KEY INQUIRY QUESTION (S)**

1. What can be observed in the sky during the day?  
2. Which are the activities done in the locality during wet and dry weather conditions?

**LEARNING RESOURCES**

Weather clock, weather chart, textbooks, internet, and digital devices, sun glasses, binoculars,

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 104

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to identify clouds as objects in the sky

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to look at the pictures in activity 1 in the learner’s book page 104

Ask learners to name the bodies in the sky during the day and at night

**STEP 2**

Lead the learners outside the classroom.

Ask them to look up in the sky using a pair of binoculars

Guide them to make observations by asking them leading questions on page 105 of the learner’s book

**STEP 3**

Ask learners to record the observation by drawing or taking photographs

Let them discuss and explain the observation in pairs

**STEP 4**

Guide learners to write the objects seen in the sky at night and during the day

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

With the help of guardian or parent learners to observe the sky at night

Let the learners record the observation made.

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 4 |  |  |  |

**STRAND**: **WEATHER AND THE SKY**

**SUB STRAND**: **types of clouds in the sky during the day**

**SPECIFIC LEARNING OUTCOMES**: by the end of the lesson, the learner should be able to:

* Identify types of clouds
* Record types of clouds in the sky during the day.
* Appreciate the importance of weather conditions within the locality

**KEY INQUIRY QUESTION (S)**

1. What can be observed in the sky during the day?  
2. Which are the activities done in the locality during wet and dry weather conditions?

**LEARNING RESOURCES**

Weather clock, weather chart, textbooks, internet, and digital devices, sun glasses, binoculars,

SCIENCE AND TECHNOLOGY (MORAN PUBLISHERS) GRADE 4 LEARNERS BK. PG. 104

**ORGANISATION OF LEARNING**

Learning will take place in an actual classroom. Learners will work individually, in pairs and small groups

**INTRODUCTION**

Review the previous lesson

Guide the learners to identify clouds as objects in the sky

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to search for names of different types of clouds and their characteristics using digital device

Ask learners to write sentences about each type of cloud identified

**STEP 2**

Guide learners to name the clouds in the learner’s book activity 2 page 105-106

Guide learners to compare their findings on clouds with the information on page 106 of the learner’s book

**STEP 3**

Lead learners outside of the classroom

Guide learners to check out for clouds in the sky

Ask learners to record the shapes of the clouds by drawing or taking photographs

**STEP 4**

Guide learners to discuss the shapes and put them in groups

Ask learners to compare the shapes of the clouds with the pictures in the learner’s book

**CONCLUSION:**

Teacher to highlight the main points of the lesson

Elaborate on the learners’ main points

Make a recapitulation of the lesson as you focus on learners’ attention to the next lesson

Teacher to conclude the lesson by asking oral question

**EXTENDED ACTIVITIES:**

Learners to draw different types of clouds

**REFLECTION ON THE LESSON:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_