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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **parts of the female reproductive system**

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

* Identify the major parts of the female reproductive system
* Draw the major of parts of the female reproductive system
* Using IT devices watch video clips of female reproductive system
* Appreciate the importance of female reproductive system

**KEY INQUIRY QUESTION (S)**

Which are the major parts of female reproductive system?

What are the functions of these parts?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of female reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 50-52

**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

Guide the learners to look up the meaning of the word reproduction

Guide a brief discussion on what reproduction is

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to display a chart showing the female reproductive system

Let the learners observe the picture

**STEP 2**

Guide the learners identify and name the major parts of the female reproductive system

Let the learners look at the chart again and write down the major parts of the female reproductive system

**STEP 3**

Task the learners to draw the major parts of the female reproductive system in their exercise book

Let them label the major parts

Assess the learners 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:**

Learners to use digital devices to search in the internet about the functions of the major parts of the female reproductive system

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **Functions of the female reproductive system**

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

* Identify the major parts of the female reproductive system
* Draw the major of parts of the female reproductive system
* Discuss the functions of parts of the female reproductive system
* Using IT devices watch video clips of female reproductive system
* Appreciate the importance of female reproductive system

**KEY INQUIRY QUESTION (S)**

Which are the major parts of female reproductive system?

What are the functions of these parts?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of female reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 50-52

**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

Guide the learners to look up the meaning of the word reproduction

Guide a brief discussion on what reproduction is

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to display a chart showing the female reproductive system

Let the learners observe the picture

**STEP 2**

Guide the learners identify and name the major parts of the female reproductive system

Let the learners look at the chart again and write down the major parts of the female reproductive system

**STEP 3**

Guide a discussion on the function of the different parts of the female reproductive system

Talk about the functions of the ovaries, oviduct, uterus, cervix and the vagina

**STEP 4**

Guide the learners to write down notes on functions of the different parts female reproductive system in their notebooks

**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 use digital devices to search in the internet about the functions of the major parts of the female reproductive system

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **parts of the male reproductive system**

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

* Identify the major parts of the male reproductive system
* Draw the major of parts of the male reproductive system
* Using IT devices watch video clips of male reproductive system
* Appreciate the importance of male reproductive system

**KEY INQUIRY QUESTION (S)**

Which are the major parts of male reproductive system?

What are the functions of these parts?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 52-54

**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 look up the meaning of the word reproduction

Guide a brief discussion on what reproduction is

Inform the learners that male and female reproductive systems are different

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to display a chart showing the male reproductive system

Let the learners observe the picture

**STEP 2**

Guide the learners identify and name the major parts of the male reproductive system

Let the learners look at the chart again and write down the major parts of the male reproductive system

**STEP 3**

Task the learners to draw the major parts of the male reproductive system in their exercise book

Let them label the major parts

Assess the learners 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:**

Learners to use digital devices to search in the internet about the functions of the major parts of the male reproductive system

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **Functions of the male reproductive system**

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

* Identify the major parts of the male reproductive system
* Draw the major of parts of the male reproductive system
* Discuss the functions of parts of the male reproductive system
* Using IT devices watch video clips of male reproductive system
* Appreciate the importance of male reproductive system

**KEY INQUIRY QUESTION (S)**

Which are the major parts of female reproductive system?

What are the functions of these parts?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 52-54

**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 look up the meaning of the word reproduction

Guide a brief discussion on what reproduction is

Inform the learners that male and female reproductive systems are different

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to display a chart showing the male reproductive system

Let the learners observe the picture

**STEP 2**

Guide the learners identify and name the major parts of the male reproductive system

Let the learners look at the chart again and write down the major parts of the female reproductive system

**STEP 3**

Guide a discussion on the function of the different parts of the male reproductive system

Talk about the functions of the penis, testis, urethra and glands

**STEP 4**

Guide the learners to write down notes on functions of the different parts male reproductive system in their notebooks

**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 use digital devices to search in the internet about the functions of the major parts of the male reproductive system

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **Physical changes that take place during adolescence**

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

* Describe the physical changes that take place during adolescence
* Watch video clip on changes during adolescence
* Appreciate the importance of reproductive system

**KEY INQUIRY QUESTION (S)**

* What is the adolescence period?
* What physical changes occur in boys during adolescence?
* What physical changes occur in girls during adolescence?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 54-56

**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 the learners to use a dictionary to find the meaning of the word adolescence

Ask the learners to share their findings with fellow learners

Learners write the meaning of the word adolescence in their notebooks

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to use digital devices connected to the internet to search for changes that take place in boys and in girls during adolescence

**STEP 2**

Let them discuss amongst themselves and then conduct a whole class discussion on the physical changes that occur in boys during adolescence

**STEP 3**

Guide a discussion for the learners to understand that changes that occur during the adolescence are completely natural and that they should embrace them because it is part of growth

Emphasise on the importance of respect for each other and appreciate the uniqueness of individuals

**STEP 4**

Guide the learners to write down all the physical changes during adolescence in their note books

**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 use digital devices to search in the internet similar physical changes that occur both in boys and girls

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **social implication of changes that occur during adolescence**

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

* Discuss the social implications of changes that come with adolescence
* Watch video clip on changes during adolescence
* Appreciate the importance of reproductive system

**KEY INQUIRY QUESTION (S)**

What are the social effects of changes that come with adolescence?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 56-57

**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

Use key inquiry question to assess learner’s knowledge on social implications of changes that come with adolescence

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to use digital devices connected to look for information on social implications of changes that occur during adolescence

* Digital literacy -

**STEP 2**

Let them discuss in groups and then conduct class discussion on the same

* Communication and collaboration

**STEP 3**

Ask the learners to write the social implications of changes that occur during adolescence

**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:**

Learners to ask their parents to help them on how to cope with social implication that occur during adolescence

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **Health implication of changes that occur during adolescence**

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

* Discuss The health implications of changes that come with adolescence
* Watch video clip on changes during adolescence
* Appreciate the importance of reproductive system

**KEY INQUIRY QUESTION (S)**

What are the health implication of changes that come with adolescence?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 57-58

**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

Use key inquiry question to assess learner’s knowledge on health implications of changes that come with adolescence

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to use digital devices connected to look for information on health implications of changes that occur during adolescence

* Digital literacy -

**STEP 2**

Let them discuss in groups and then conduct class discussion on the same

* Communication and collaboration

**STEP 3**

Guide the learners to discuss items that are used for hygiene.

This activity will help them observe proper body hygiene

**STEP 4**

Guide the learners to come up with a list of items that can be used for grooming in girls and those that can be used by boys in order to observe proper body hygiene

**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 ask their parents to help them on how to cope with health implication that occur during adolescence

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **REPRODUCTIVE SYSTEM**

**SUB STRAND**:  **Health implication of changes that occur during adolescence**

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

* Discuss The health implications of changes that come with adolescence
* Watch video clip on changes during adolescence
* Appreciate the importance of reproductive system

**KEY INQUIRY QUESTION (S)**

What are the health implication of changes that come with adolescence?

**LEARNING RESOURCES**

Pictures/posters/chart showing the major parts of male reproductive system, dictionary

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 57-58

**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

Use key inquiry question to assess learner’s knowledge on health implications of changes that come with adolescence

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to listen to the invited resource person talking about the health implications of changes that occur during adolescence

**STEP 2**

Put them in groups. Assign each group a topic

Brief them on how to write a report

Each group to work together and write a report on the topic assigned

They can use the notes taken during the talk

Each group to present their report to the class about health implication of changes that come with adolescence

**STEP 3**

Guide the learners to discuss items that are used for hygiene.

This activity will help them observe proper body hygiene

**STEP 4**

Guide the learners to come up with a list of items that can be used for grooming in girls and those that can be used by boys in order to observe proper body hygiene

**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 ask their parents to help them on how to cope with health implication that occur during adolescence

**REFLECTION ON THE LESSON:**

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

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – Meaning of water conservation**

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

* Discuss the meaning of water conservations
* Describe ways of conserving water at home
* Draw pictures of items used in conserving water
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 61-62

**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

Have a pre assessment using the key inquiry question to find out what learners know about water

**LESSON DEVELOPMENT**

**STEP 1**

Guide a discussion on sources of water

Let the learners share experiences on where they get water that they use at home

**STEP 2**

Guide a discussion for the learners to understand that water must be used in such a way that it is not wasted

**STEP 3**

Organise the learners in pairs

Allow learners to search on the internet or dictionaries for the meaning of the words water conservation

Allow the learners to discuss what they found out

**STEP 4**

Guide a class discussion on the meaning of the words “water conservation”

Let the learners write down the meaning of water conservation in their notebooks

**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 print pictures of different ways of conserving water at home

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – Meaning of water conservation**

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

* Discuss the meaning of water conservations
* Describe ways of conserving water at school
* Draw pictures of items used in conserving water
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 61-62

**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

Have a pre assessment using the key inquiry question to find out what learners know about water

**LESSON DEVELOPMENT**

**STEP 1**

Guide a discussion on sources of water

Let the learners share experiences on where they get water that they use at home

**STEP 2**

Guide a discussion for the learners to understand that water must be used in such a way that it is not wasted

Guide a class discussion on the meaning of the words “water conservation”

**STEP 3**

Organise the learners in groups to go outside the class and explore how the school conserve water

Teacher to caution the learners against playing near the water ponds and dams

Guide the learners to identify, observe and write down all different ways the school conserve water

**STEP 4**

Guide the learners to take pictures of the different ways that water iss conserved in the school

**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 print pictures of different ways of conserving water in their locality

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – ways of conserving water**

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

* Discuss the meaning of water conservations
* Describe ways of conserving water at school
* Draw pictures of items used in conserving water
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

What is reusing water?

What is reducing water?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 62-66

**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

Introduce the lesson by guiding a discussion on what water conservation is

Ask learners to name some of the methods of water conservation

**LESSON DEVELOPMENT**

**STEP 1**

Guide a discussion on reuse as a way of conserving water.

Guide a discussion on the meaning of reusing water

Emphasize to the learners that water is reused as it is

Let learners give scenarios where water is reused

**STEP 2**

Guide the learners to brainstorm on the different ways they can reuse water at home

Guide them to draw table 1 in their notebook and fill it in.

Let them write as many ways of reusing water at home and school in the table

**STEP 3**

Guide a discussion on reducing as one of the ways of conserving water

Guide the learners to work in pairs to discuss the question in activity 2 in the learner’s book page 65

**STEP 4**

Guide a discussion on the different ways of reducing the amount of water used for different activities

* This will enhances their self efficacy

**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 guide their parents on how water can be reuse and reduced at home

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – Recycling and harvesting rain water**

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

* Describe recycling, harvesting rainwater and construction of dams as ways of conserving water
* Model items used in water conservation
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

What is recycling water?

Do dams conserve water?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 66-68

**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 learners to list ways of conserving water

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to discuss recycling as one of the ways of conserving water

Guide a discussion on what it is and how it helps to conserve water

Teacher to explain what recycling of water means

Remind the learners that in recycling, the used water is treated before it is released into the environment

**STEP 2**

Guide a discussion on harvesting rainwater as one of the ways of conserving water

Ask learners to share experiences on how they collected and store rainwater at home

**STEP 3**

Teacher to take learners through the points given in the learner’s book page 67

**STEP 4**

Remind the learners that rainwater harvested from some rooftops such as those made of asbestos is not good for drinking or cooking

The can be used for cleaning ]

**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:**

Model items used in water conservation

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – mulching and construction of dams**

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

* Describe recycling, harvesting rainwater and construction of dams as ways of conserving water
* Model items used in water conservation
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

What is recycling water?

Do dams conserve water?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 66-68

**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 learners to list ways of conserving water

**LESSON DEVELOPMENT**

**STEP 1**

Teacher to explain the meaning of mulching

Guide a discussion on mulching and how it helps to conserve water

**STEP 2**

Guide a discussion on construction of dams as ways of conserving water

Guide a discussion on how dams contribute to water conservation

**STEP 3**

Guide the learners to discuss home activity 2 in the learner’s book page 68

Ask learners to mulch a plant at school, take a picture and bring the picture to school

**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:**

Model items used in water conservation

**REFLECTION ON THE LESSON:**

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| SCHOOL | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **ENVIRONMENT**

**SUB STRAND**:  **WATER CONSERVATION – importance of conserving water**

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

* Describe recycling, harvesting rainwater and construction of dams as ways of conserving water
* Explain the importance of conserving water at home
* Model items used in water conservation
* Appreciate the importance of water in day-to-day life

**KEY INQUIRY QUESTION (S)**

What is water conservation?

Why is it important to conserve water at home?

**LEARNING RESOURCES**

Pictures/posters/charts of sources of water, digital devices

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 66-68

**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 learners to list ways of conserving water

**LESSON DEVELOPMENT**

**STEP 1**

Guide a discussion on the importance of conserving water at home.

Teacher to take the learners through the notes on page 68/69 of the learner’s book

**STEP 2**

Guide the learners to watch videos on the importance of conserving water

**STEP 3**

Using the key inquiry questions, guide the learners to appreciate the fact that it is possible to use less water while carrying out various activities at home and in school

**STEP 4**

Design/ create posters that carry messages of water conservation

**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 accompany parents to take part in communal activities that involves conserving water

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 5 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – safety precautions to observe while using computing devices in the locality**

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

* Discuss safety precautions when using computing devices
* Observe safety when using computing devices in their locality
* Appreciate the use of word documents in their everyday life

**KEY INQUIRY QUESTION (S)**

What safety precautions should be observed while using computing devices in the locality?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 71-72

**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

Direct the learners to activity 1 on page 71 of the learner’s book

Let learners observe and study the questions an answer the questions that follow

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to brainstorm some the accidents that might happen while handling computing devices

**STEP 2**

Guide the learners to discuss other safety rules that they should observe when using computing devices

Ask the learners to write them down

**STEP 3**

Take the learners through the “what we have learnt ...” section on the learner’s book page 72

**STEP 4**

Remind the learners the right sitting posture when they are working with computers to avoid hurting their back

Remind the learners that they need to observe the safety measures at all times

**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 come with class safety measures to observe while handling computing devices

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – creating a spreadsheet**

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

* Create a spreadsheet document using ict devices
* Observe safety when using computing devices in their locality
* Appreciate the use of spreadsheet documents in their everyday life

**KEY INQUIRY QUESTION (S)**

1. What is spreadsheet document?
2. How do you create a spreadsheet document?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 5 LEARNERS BK. PG. 72-75

**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

Find out whether learners remember how to switch on a computer

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet the meaning of the word spreadsheet

Teacher to elaborate what spreadsheet is

**STEP 2**

Let them watch the video and follow the instructions on how to open a word document

**STEP 3**

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**STEP 4**

Take the learners through the “what we have learnt ...” section on the learner’s book page 73

**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:**

Parents to provide the learners with opportunities to create spreadsheet document at home

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – KEYING IN INFORMATION**

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

* Key in information in a MS EXCEL program/document
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

1. What is spreadsheet document?
2. How do you create a spreadsheet document?
3. **H**ow do you key in information in a spreadsheet?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 72-75

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Let the learners discuss what appears on the screen

Ask them to find out from the internet the different parts of the Microsoft excel window

**STEP 2**

Guide the learners to identify and name the parts of the Microsoft excel document

**STEP 3**

Individually, guide the learners to follow the steps in activity 3 on page 74 of the learner’s book to create a word document and key in the information given

**STEP 3**

Let the learners keep practising keying in information until they are competent

**STEP 4**

Take the learners through the “what we have learnt....” section on page 75 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:**

Parents to provide the learners with opportunities to create spreadsheet document and keying in information at home

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – Editing a spreadsheet document**

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

* Identify ways of editing a spreadsheet
* Edit information in a MS excel document
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

1. What are the different ways you can edit information in a spreadsheet document**?**

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 75-77

**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

**LESSON DEVELOPMENT**

**STEP 1**

Direct the learners to search from the internet a video about editing a spreadsheet

Let them watch the video clip

**STEP 2**

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

Direct the learners to activity 4 on page 75-76 of the learners’ book

Ask them to create a excel document and type the information in activity 4

**STEP 3**

Guide the learners to select the text they want to edit

Guide them to

1. Change the width of a column
2. Change the width of a row
3. Fitting text in one cell to avoid overlapping of text into the next cell
4. Changing font size, type and colour of data
5. Selecting text
6. Highlighting text
7. Moving from one cell to another within a spreadsheet documents
8. Sorting numbers in order of smallest to the largest of from the largest to smallest
9. Copying and pasting text
10. Saving a word document

**STEP 4**

Take the learners through the “what we have learnt....” section on page 76-77 of the learner’s book

**STEP 5**

Guide the learners to follow the steps given on the learners textbook

Let the learners keep practising TASK 1 on page 78 of the learner’s book until they are competent

**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:**

Parents to provide the learners with opportunities to create spreadsheet document, keying in information and editing at home

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – Editing a spreadsheet document**

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

* Identify ways of editing a spreadsheet
* Edit information in a MS excel document
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

1. What are the different ways you can edit information in a spreadsheet document**?**

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 75-77

**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

**LESSON DEVELOPMENT**

**STEP 1**

Direct the learners to search from the internet a video about editing a spreadsheet

Let them watch the video clip

**STEP 2**

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

Direct the learners to activity 4 on page 75-76 of the learners’ book

Ask them to create a excel document and type the information in activity 4

**STEP 3**

Guide the learners to select the text they want to edit

Guide them to

1. Change the width of a column
2. Change the width of a row
3. Fitting text in one cell to avoid overlapping of text into the next cell
4. Changing font size, type and colour of data
5. Selecting text
6. Highlighting text
7. Moving from one cell to another within a spreadsheet documents
8. Sorting numbers in order of smallest to the largest of from the largest to smallest
9. Copying and pasting text
10. Saving a word document

**STEP 4**

Take the learners through the “what we have learnt....” section on page 76-77 of the learner’s book

**STEP 5**

Guide the learners to follow the steps given on the learners textbook

Let the learners keep practising TASK 1 on page 78 of the learner’s book until they are competent

**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:**

Parents to provide the learners with opportunities to create spreadsheet document, keying in information and editing at home

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – Editing a spreadsheet document**

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

* Identify ways of editing a spreadsheet
* Edit information in a MS excel document
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

What are the different ways you can edit information in a spreadsheet document**?**

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 75-77

**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

**LESSON DEVELOPMENT**

**STEP 1**

Direct the learners to search from the internet a video about editing a spreadsheet

Let them watch the video clip

**STEP 2**

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

Direct the learners to activity 4 on page 75-76 of the learners’ book

Ask them to create a excel document and type the information in activity 4

**STEP 3**

Guide the learners to select the text they want to edit

Guide a discussion about the ms excel ribbon and the uses of the different buttons in different groups namely:

1. Clipboard
2. Font group
3. Alignment group
4. Number group
5. Styles group
6. Styles group
7. Cell group
8. Editing group

**STEP 4**

Take learners through the “what we have learnt....” section on page 76-77 of the learner’s book

**STEP 5**

Guide the learners to follow the steps given on the learners textbook

Let the learners keep practising TASK 1 on page 78 of the learner’s book until they are competent

**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 and practise other aspects of editing of spreadsheets

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – carrying out simple operations on data in spreadsheet**

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

* Carry out simple operations on data in a spreadsheet
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you perform simple operations such as addition, multiplication, subtraction, and division on data in a spreadsheet?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 79-83

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to create a spreadsheet document and enter data

**STEP 2**

Guide the learners through the steps of doing addition of the data in a spreadsheet

**STEP 3**

Individually, guide the learners to follow the steps in activity 5 on page 79/80 of the learner’s book

Assess their work

**STEP 3**

Let the learners keep practising addition of data until they are competent

Teacher to also guide them to add figures by using autosum in the editing tab

**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:**

Let the learners keep practising TASK 1 on page 81 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – carrying out simple operations on data in spreadsheet**

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

* Carry out simple operations on data in a spreadsheet
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you perform simple operations such as addition, multiplication, subtraction, and division on data in a spreadsheet?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 79-83

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to create a spreadsheet document and enter data

**STEP 2**

Guide the learners through the steps of doing subtraction of the data in a spreadsheet

**STEP 3**

Individually, guide the learners to follow the steps in activity 5 on page 79/80 of the learner’s book

Assess their work

**STEP 3**

Let the learners keep practising subtraction of data until they are competent

**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:**

Let the learners keep practising TASK 2 on page 81 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – carrying out simple operations on data in spreadsheet**

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

* Carry out simple operations on data in a spreadsheet
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you perform simple operations such as addition, multiplication, subtraction, and division on data in a spreadsheet?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 79-83

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to create a spreadsheet document and enter data

**STEP 2**

Guide the learners through the steps of doing multiplication of the data in a spreadsheet

**STEP 3**

Individually, guide the learners to follow the steps in activity 6 on page 81-83 of the learner’s book

Assess their work

**STEP 3**

Let the learners keep practising multiplication of data until they are competent

**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:**

Let the learners keep practising TASK 3 on page 83-84 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – carrying out simple operations on data in spreadsheet**

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

* Carry out simple operations on data in a spreadsheet
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you perform simple operations such as addition, multiplication, subtraction, and division on data in a spreadsheet?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 79-83

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to create a spreadsheet document and enter data

**STEP 2**

Guide the learners through the steps of doing division of the data in a spreadsheet

**STEP 3**

Individually, guide the learners to follow the steps in activity 6 on page 81-83 of the learner’s book

Assess their work

**STEP 3**

Let the learners keep practising division of data in a spreadsheet until they are competent

**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:**

Let the learners keep practising TASK 3 on page 83-84 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – saving a spreadsheet document on a computing device**

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

* Save a spread sheet document on a computingdevice
* Observe safety when using computing devices in their locality
* Appreciate the use of excel documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you save a spreadsheet document on a computing device?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 84-85

**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

Let them type MICROSOFT EXCEL on the TYPE HERE TO SEARCH section

After that they should double click on the EXCEL 2010

This will open the EXCEL 2010 window

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to create a spreadsheet document and enter data

**STEP 2**

Use the key inquiry questions find out whether the learners recall how to save a document from grade 5 lessons about ms word

**STEP 3**

Guide the learners through the process of saving a spreadsheet document in different locations on the computer

Guide a discussion about different locations (desktop, document folder, local disk, portable storages) where one can save their work

Guide a discussion on the different parts of a “save as” dialogue box.

**STEP 4**

Individually, guide the learners to follow the steps in activity 9 on page 84/85 of the learner’s book of saving a spreadsheet document

**STEP 5**

Let the learners keep practising saving a spreadsheet document in different locations on a computer until they are competent

**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:**

Let the learners keep practising TASK 4 on page 83-84 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – retrieving a spreadsheet documents on a computing device**

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

* Save and retrieve a document from a computing device
* Observe safety when using computing devices in their locality
* Appreciate the use of word documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How do you retrieve a spreadsheet document on a computing device?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 78-79

**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

Guide learners to recall the steps they followed when saving a document in different locations on a computer

Guide a brief discussion on locations in a computer where one can save a document

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners through the steps on page 86 in activity 8 of retrieving saved documents

**STEP 2**

Ask the learners to retrieve other spreadsheet documents that they had saved in the computer

**STEP 3**

Ask learners to practise retrieving different spreadsheet documents until they become competent

**STEP 4**

Guide a discussion on different parts of a “open “ dialogue box

**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:**

Let the learners keep practising TASK 5 on page 87 of the learner’s book until they are competent

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – uses of spreadsheet in everyday life**

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

* Identify uses of spreadsheet in everyday life
* Create and maintain a personal assessment portfolio in a spreadshee
* Observe safety when using computing devices in their locality
* Appreciate the use of spreadsheets in everyday life
* Appreciate the use of word documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How are spreadsheet useful in our everyday lives?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 78-79

**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

Use the key inquiry question to find out from the learners how they think a spreadsheet is useful in their everyday life

Guide a discussion based on their responses

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners in groups

Guide the learners to search the internet for the various uses of spreadsheet

**STEP 2**

Guide the learners to brainstorm on the areas that they think a spreadsheet document can be used at home and in school

**STEP 3**

Guide a discussion on the different ways spreadsheet can be used in everyday life

**STEP 4**

Guide the learners to go through the points given in the learner’s book pages 87-88

**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:**

Let the learners keep practising doing simple operation of data using spreadsheet during their free time

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **INTERACTING WITH COMPUTING DEVICES**

**SUB STRAND**:  **HANDLING DATA – personal assessment portifolio**

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

* Identify uses of spreadsheet in everyday life
* Create and maintain a personal assessment portfolio in a spreadshee
* Observe safety when using computing devices in their locality
* Appreciate the use of spreadsheets in everyday life
* Appreciate the use of word documents in their everyday life

**KEY INQUIRY QUESTION (S)**

How are spreadsheet useful in our everyday lives?

**LEARNING RESOURCES**

Computing devices – desktop, tablets, laptops smartphones

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 78-79

**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

Use the key inquiry question to find out from the learners how they think a spreadsheet is useful in their everyday life

Guide a discussion based on their responses

**LESSON DEVELOPMENT**

**STEP 1**

Organise learners in groups

Guide the learners to search the internet for the various uses of spreadsheet

Guide the learners to brainstorm on the areas that they think a spreadsheet document can be used at home and in school

Guide a discussion on the different ways spreadsheet can be used in everyday life

**STEP 2**

Guide the learners to create a personal assessment portfolio in a spreadsheet

Let them follow /use the sample given in the learner’s book pages 88 and 89

**STEP 3**

Teacher to go round the class assisting the learners and guide them on what to do

**STEP 4**

Emphasize that they should be responsible and update the portfolio every day for a whole term

Remind them to save their 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:**

Let the learners keep practising TASK 6 on page 89 of the learner’s book

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of solids**

* Carry out activities to demonstrate the expansion and contraction of solids
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

1. What is expansion?
2. What is contraction?

**LEARNING RESOURCES**

Computing devices, pens, a metallic ring, metallic ball, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 91-94

**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

Use the key inquiry question to find out what learners know about expansion and contraction

**LESSON DEVELOPMENT**

**STEP 1**

Refer the learner’s to activity 1 in the learner’s book page 91

Guide the learners to assemble all the materials required for the activity

**STEP 2**

Demonstrate activity 1 in the learner’s book page 91

Pass the metallic ball through the ring

Ask the learners to observe whether the metallic ball goes through the ring

**STEP 3**

Cool the metallic ball by placing it in cold water, then pass it through the metallic ring again

Ask learners to make observation

* This will enhance their critical thinking

**STEP 4**

Use the words expansion and contraction to describe the metallic ball

Guide a discussion on how the metallic ball expands when heated and how it contacts after cooling

Let the learners conclude that the metallic ball when it was heated, it expands (becomes bigger) and that is why it could not go through the metallic ring. When it was cooled, it contracted and that is why it went through the metallic ring

**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 use digital devices to explore more on expansion and contraction of matter

Parents to show learners situation at home where expansion and contraction of solids are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of solids**

* Carry out activities to demonstrate the expansion and contraction of solids
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

1. What is expansion?
2. What is contraction?

**LEARNING RESOURCES**

Computing devices, pens, a metallic ring, metallic ball, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 91-94

**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

Use the key inquiry question to find out what learners know about expansion and contraction

**LESSON DEVELOPMENT**

**STEP 1**

Refer the learner’s to activity 2 in the learner’s book page 92/93

Guide the learners to assemble all the materials required for the activity

**STEP 2**

Demonstrate activity 2 in the learner’s book page 92/93

Guide the learners to make observation on the behaviour of the nail before heating, after heating and after cooling

**STEP 3**

Guide the learners to carry out the same activity

Caution them to be careful and not to touch hot nails with bare hands as they may get burnt

**STEP 4**

Guide the learners to use digital devices connected to the internet to find more information on the expansion and contraction of solids

Ask the learners to make short notes on the expansion and contraction of solids in their notebooks

**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 use digital devices to explore more on expansion and contraction of matter

Parents to show learners situation at home where expansion and contraction of solids are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of liquids**

* Carry out activities to demonstrate the expansion and contraction of liquids
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

1. Do liquids expand when they are heated

**LEARNING RESOURCES**

Computing devices, a straw, a bottle, a cork, stopwatch, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 94-95

**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

Use the key inquiry question to find out what learners know about heating water

**LESSON DEVELOPMENT**

**STEP 1**

Organise the learners in groups to carry out activity 3 in the learner’s book page 94 and 95

Help the learners assemble all the requirements for the activity

**STEP 2**

Guide the learners to observe what is happening to the level of the coloured water in the straw as heating continues

Ask them to record their observation

**STEP 3**

Guide the learners to observe the level of the coloured water in the straw over a period of five minutes

Let them compare the levels of the coloured water before and after the bottle was heated

**STEP 4**

Guide the learners a discussion on the expansion and contraction of 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:**

Learners to use digital devices to explore more on expansion and contraction of liquids

Parents to show learners situation at home where expansion and contraction of liquids are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of liquids**

* Carry out activities to demonstrate the expansion and contraction of liquids
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

1. Do liquids expand when they are heated

**LEARNING RESOURCES**

Computing devices, a straw, a bottle, a cork, stopwatch, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 94-95

**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

Use the key inquiry question to find out what learners know about heating water

**LESSON DEVELOPMENT**

**STEP 1**

Organise the learners in groups to carry out activity 3 in the learner’s book page 94 and 95

Help the learners assemble all the requirements for the activity

**STEP 2**

Guide the learners to observe what is happening to the level of the coloured water in the straw as heating continues

Ask them to record their observation

Let learners make observation of water level in the straw over a period of 5 minutes

Let them compare the levels of coloured water before and after the bottle was heated

**STEP 3**

Guide the learners to use digital devices to watch videos on expansion and contraction of liquids

Ask them to share with fellow learners what they found out

**STEP 4**

Guide the learners a discussion on the expansion and contraction of liquids

Guide the learner’s to write down notes on the expansion and contraction of 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:**

Learners to use digital devices to explore more on expansion and contraction of liquids

Parents to show learners situation at home where expansion and contraction of liquids are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of gases**

* Carry out activities to demonstrate the expansion and contraction of gases
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

How can you show that gases expand when exposed to heat

**LEARNING RESOURCES**

Computing devices, a straw, a bottle, a balloon, rubber bands, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 96-97

**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

Use the key inquiry question to find out what learners know about gases

**LESSON DEVELOPMENT**

**STEP 1**

Organise the learners in groups to carry out activity 4 in the learner’s book page 96 and 97

Help the learners assemble all the requirements for the activity

**STEP 2**

Teacher to demonstrate the activity

Guide the learners to observe what happens to the balloon when the bottle is placed in hot water and when the bottle is removed from the hot water and left to cool

**STEP 3**

After demonstration, allow learners to carry out the experiment and make observations

Caution learners to be careful to avoid burn accidents from the hot water

**STEP 4**

Guide the learners a discussion on the expansion and contraction of gases

**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 use digital devices to explore more on expansion and contraction of gases

Parents to show learners situation at home where expansion and contraction of gases are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – expansion and contraction of gases**

* Carry out activities to demonstrate the expansion and contraction of gases
* Differentiate between expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

How can you show that gases expand when exposed to heat

**LEARNING RESOURCES**

Computing devices, a straw, a bottle, a balloon, rubber bands, water, source of heat

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 96-97

**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

Use the key inquiry question to find out what learners know about gases

**LESSON DEVELOPMENT**

**STEP 1**

Organise the learners in groups to carry out activity 4 in the learner’s book page 96 and 97

Help the learners assemble all the requirements for the activity

**STEP 2**

Teacher to demonstrate the activity

Guide the learners to observe what happens to the balloon when the bottle is placed in hot water and when the bottle is removed from the hot water and left to cool

After demonstration, allow learners to carry out the experiment and make observations

Caution learners to be careful to avoid burn accidents from the hot water

**STEP 3**

Guide the learners to use digital devices to watch video clips on expansion and contraction in gases

Ask them to share with fellow learners what they found out

**STEP 4**

Guide the learners a discussion on the expansion and contraction of gases

Guide the learners to write down notes on the expansion and contraction of gases

**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 use digital devices to explore more on expansion and contraction of gases

Parents to show learners situation at home where expansion and contraction of gases are applied

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – application of expansion and contraction in everyday life**

* Discuss application of expansion and contraction in everyday life.
* Watch a video clip on application of expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

What is the importance of contraction and expansion in our everyday life?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 96-97

**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

Use the key inquiry question to find out what learners know about areas where expansion and contraction are applied in their community

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet , the application of expansion and contraction in everyday life

Let the learners discuss what they have found out with fellow learners in their groups

**STEP 2**

Conduct a discussion involving the whole class on the application of expansion and contraction

**STEP 3**

Guide the learners to identify the application of expansion and contraction in everyday life within their locality

**STEP 4**

Guide the learners to write down notes on the application of expansion and contraction in everyday life in their notebooks

**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 use digital devices to explore more on the application of expansion and contraction in everyday life

Parents to help learners identify areas where contraction and expansion are applied in our daily lives

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **MATTER**

**SUB STRAND**:  **Properties of matter – application of expansion and contraction in everyday life**

* Discuss application of expansion and contraction in everyday life.
* Watch a video clip on application of expansion and contraction
* Value the importance of matter in daily life

**KEY INQUIRY QUESTION (S)**

What is the importance of contraction and expansion in our everyday life?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 96-97

**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

Use the key inquiry question to find out what learners know about areas where expansion and contraction are applied in their community

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet, the application of expansion and contraction in everyday life

Let the learners discuss what they have found out with fellow learners in their groups

**STEP 2**

Conduct a discussion involving the whole class on the application of expansion and contraction

**STEP 3**

Guide the learners to identify the application of expansion and contraction in everyday life within their locality

**STEP 4**

Guide the learners to write down notes on the application of expansion and contraction in everyday life in their notebooks

**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 use digital devices to explore more on the application of expansion and contraction in everyday life

Parents to help learners identify areas where contraction and expansion are applied in our daily lives

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Demonstrate that air is a mixture of gases
* Identify the components of air
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Use the key inquiry question to find out what learners know about the components of air

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet for the different components of air

Let the learners discuss what they have found out with fellow learners in their groups

Let them write down the components of air

**STEP 2**

Demonstrate activity 1 in the learner’s book page 101 and 102 (to show that air contain oxygen and nitrogen)

Guide the learners to observe the level of water in the gas jar after the experiment

**STEP 3**

Guide the learners to carry out the experiment under the teacher supervision

Guide them to make observation

**STEP 4**

Guide a discussion on the observation and conclusion 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:**

Learners to use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Demonstrate that air is a mixture of gases
* Identify the components of air
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks, water, candle, jar, matchboxes, plasticine,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Use the key inquiry question to find out what learners know about the components of air

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet for the different components of air

Let the learners discuss what they have found out with fellow learners in their groups

Let them write down the components of air

**STEP 2**

Demonstrate activity 1 in the learner’s book page 101 and 102 (to show that air contain oxygen and nitrogen)

Guide the learners to observe the level of water in the gas jar after the experiment

**STEP 3**

Guide the learners to carry out the experiment under the teacher supervision

Guide them to make observation

**STEP 4**

Guide a discussion on the observation and conclusion 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:**

Learners to use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Demonstrate that air is a mixture of gases
* Identify the components of air
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Use the key inquiry question to find out what learners know about the components of air

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet for the different components of air

Let the learners discuss what they have found out with fellow learners in their groups

Let them write down the components of air

**STEP 2**

Using digital devices connected to the internet watch videos that demonstrate the presence of carbon dioxide (to show that air contain carbon dioxide)

**STEP 3**

Guide the learners to carry out the experiment under the teacher supervision

Guide them to make observation

**STEP 4**

Guide a discussion on the observation and conclusion 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:**

Learners to use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Demonstrate that air is a mixture of gases
* Identify the components of air
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks, ice cubes, water, metallic tumber

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Use the key inquiry question to find out what learners know about the components of air

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to search the internet for the different components of air

Let the learners discuss what they have found out with fellow learners in their groups

Let them write down the components of air

**STEP 2**

Demonstrate activity 2 in the learner’s book page 104 (to show that air contain water vapour)

Guide the learners to observe the outer surface of the metallic tumbler

**STEP 3**

Guide the learners to carry out the experiment under the teacher supervision

Guide them to make observation

**STEP 4**

Guide a discussion on the observation and conclusion 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:**

Learners to use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Identify the components of air
* Discuss the uses of the different components of air in nature
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

What are the uses of different components of air in nature?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Introduce the lesson by asking learners to mention the different components of air

**LESSON DEVELOPMENT**

**STEP 1**

Find out what learners know about the uses of different components of air

Discuss the use of each component of air

**STEP 2**

Guide a discussion on the uses of oxygen

Guide the learners to watch videos on the uses of oxygen

Discuss each uses of oxygen

**STEP 3**

Demonstrate to the learners the experiment that shows that oxygen supports combustion

Remind the learners about the importance of observing safety while working with heat

**STEP 4**

Ask learners to write down the uses of oxygen

**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 use digital devices to explore more on uses of different components of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Identify the components of air
* Discuss the uses of the different components of air in nature
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

What are the uses of different components of air in nature?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Introduce the lesson by asking learners to mention the different components of air

**LESSON DEVELOPMENT**

**STEP 1**

Find out what learners know about the uses of different components of air

Discuss the use of each component of air

**STEP 2**

Guide the learners to search on the internet for the uses of carbon dioxide

Guide the learners to share what they have found out

**STEP 3**

Guide a discussion on the uses of carbon dioxide

**STEP 4**

Ask learners to write down the uses of carbon dioxide

**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 use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **COMPOSITION OF AIR**

**SUB STRAND**:  **components of air in the atmosphere**

* Identify the components of air
* Discuss the uses of the different components of air in nature
* Appreciate the importance of air in our lives

**KEY INQUIRY QUESTION (S)**

What does air contain?

How can you demonstrate that air is made up of different components?

What are the uses of different components of air in nature?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 101-104

**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

Introduce the lesson by asking learners to mention the different components of air

**LESSON DEVELOPMENT**

**STEP 1**

Guide a discussion on the uses of nitrogen

Direct the attention of learners to activity 4 in the learner’s book page 108

Guide a discussion on the pictures provided and how nitrogen is involved in each picture

**STEP 2**

Ask the learners to write down in their notebooks the uses of nitrogen

**STEP 3**

Guide a discussion on the uses of noble gases

Guide the learners to discuss the pictures on page109 of the learner’s book

**STEP 4**

Ask learners to write down the uses noble gases in their notebooks

**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 use digital devices to explore more on composition of air

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **FRICTION**

1. Define friction
2. Carry out an activity to demonstrate friction
3. Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

What is friction?

What happens when two surfaces rub against each other?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 111-112

**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

Use key inquiry questions to provoke the learner’s thinking on the meaning of friction

**LESSON DEVELOPMENT**

**STEP 1**

In pairs, guide the learners to use digital devices to look for the meaning of the word friction

Allow them to discuss amongst themselves and share what they have found out with other pairs

Guide the learners to understand the meaning of the word friction

**STEP 2**

Guide learners to carry out an activity 1 on page 112 of the learner’s book to demonstrate friction

**STEP 3**

Explain to the learners that the reason they find difficult to pull or push the box on the rough surface is because of friction, which is a force that opposes motion

**STEP 4**

Ask learners to brainstorm and give other demonstration of activities that involve friction

Guide them to use digital devices to watch videos on activities that demonstrate friction and its effects

**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 carry out activities that demonstrate friction at home

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **Advantages of FRICTION**

1. State the advantages of friction
2. Identify activities that demonstrate advantages of friction
3. Carry out simple activities that demonstrate advantages of friction
4. Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

Is friction useful?

How is it useful?

Which activities involve friction?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 112-115

**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

Use key inquiry questions to review the previous lesson on the meaning of friction

**LESSON DEVELOPMENT**

**STEP 1**

Use key inquiry questions to inquire from the learners whether they thin friction is useful

Guide them to brainstorm on activities in their daily lives that involve friction

* This will enhance their critical thinking

**STEP 2**

Direct the attention of the learners to the learner’s book page 113

Ask learners to describe what is happening in each picture

Guide a discussion on how each of the activities involves friction

Explain to the learners that without friction, those activities would not take place

* This will enhance learning to learn

**STEP 3**

Use digital devices to watch videos on activities that involve friction

Discuss advantages of friction

* This will enhance their digital literacy

**STEP 4**

Guide the learners to discuss the notes provided in the learner’s book pages 113-115

Let learners identify advantages of friction by showing how friction is used in everyday life

**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:**

Parents to assist learners to do home activity 1. This activity requires the learner to find out activities that involve friction.

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **Disadvantages of FRICTION**

1. State and identify the disadvantages of friction
2. Demonstrate the disadvantages of friction
3. Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

1. Does friction cause any harm?
2. What are the disadvantages of friction?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 112-115

**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

Use key inquiry questions to review the previous lesson on the advantages of friction.

**LESSON DEVELOPMENT**

**STEP 1**

Use key inquiry questions to assess whether learners have prior knowledge of the disadvantages of friction

Guide a discussion based on their answers

* This will enhance their critical thinking

**STEP 2**

Direct the attention of the learners to activity 3 the learner’s book page 116

Ask learners to describe what is happening in each picture

Guide a discussion on how each of the activities involves friction

Guide them to understand that it is friction that has made sole and tyre to wear out

* This will enhance learning to learn

**STEP 3**

Use digital devices to search for other disadvantages of friction other than those listed in the learner’s book

Discuss disadvantages of friction

* This will enhance their digital literacy

**STEP 4**

Guide the learners to discuss the notes provided in the learner’s book pages 116-118

Let learners identify disadvantages of friction by showing how friction is used in everyday life

**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:**

Parents to assist learners to do home activity 2. This activity requires the learner to find out activities that involve friction.

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **ways of reducing friction**

1. State and explain the ways reducing of friction
2. Demonstrate ways of reducing friction
3. Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

1. Is it possible to reduce friction?
2. How can friction be reduced?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks,

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 118-121

**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**

In pairs, guide the learners to present their findings of the Home activity that involved looking at soles of old to see the effects of friction on soles

Allow learners to share their findings in pairs then select a few learners to make a presentation of their findings to the whole class

Encourage other learners to listen and ask question about areas that they do not understand

**STEP 2**

Guide learners to use digital devices to find out ways of reducing friction.

Let them write down and discuss what they find out

They should also share what they found out with others in the class

**STEP 3**

Guide a discussion about oiling and greasing as a way of reducing friction

Guide the learners to carry out activity 5 in the learner’s book page 119 to show that oiling and greasing reduce friction

**STEP 4**

Guide a discussion on other different ways of reducing friction such as by use of rollers and wheels, streamlining and making surfaces smooth

Guide the learners to carry out activity 6 to show that making surfaces smooth reduces friction

**STEP 5**

Guide the learners to clear the working surfaces and dispose of the litter safely.

**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:**

Parents to involve learners in activities that reduce friction at home, for example oiling and greasing door hinges

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **ways of increasing friction**

* State and explain the ways increasing of friction
* Make sandpaper using materials available in their locality
* Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

* How can we increase friction?

**LEARNING RESOURCES**

Computing devices, a pen, notebooks, sandpaper, glue

New Planet SCIENCE AND TECHNOLOGY GRADE 6 LEARNERS BK. PG. 122-123

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Begin the lesson by asking learners to discuss their findings of the home activity where they find out the different ways that have been used to reduce friction between different surfaces at home

**LESSON DEVELOPMENT**

**STEP 1**

Use the key inquiry questions to find out what the learners know about increasing friction

**STEP 2**

Direct the attention of the learners to the learner’s book page 122

Guide a discussion about the pictures

**STEP 3**

Guide a discussion on other ways of increasing friction

**STEP 4**

Guide the learners to use digital devices to watch videos that show ways of increasing friction apart from those listed in the learner’s book

**STEP 5**

Guide the learners to write down ways of increasing friction and share with fellow learners what they have found 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:**

Parents to involve learners in activities that increase friction at home, for example oiling and greasing door hinges

**REFLECTION ON THE LESSON:**

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| --- | --- | --- | --- | --- | --- |
| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | **SCIENCE AND TECH** | 6 |  |  |  |

**STRAND**: **FORCE AND ENERGY**

**SUB STRAND**:  **ways of increasing friction**

* State and explain the ways increasing of friction
* Make sandpaper using materials available in their locality
* Appreciate the use of friction in everyday life

**KEY INQUIRY QUESTION (S)**

* How can we increase friction?
* What is sandpaper?
* How can you make sandpaper?
* What is sandpaper used for?

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**INTRODUCTION**

Begin the lesson by asking learners to discuss their findings of the home activity where they find out the different ways that have been used to reduce friction between different surfaces at home

**LESSON DEVELOPMENT**

**STEP 1**

Use the key inquiry questions to find out what the learners know about increasing friction

**STEP 2**

Organise learners in groups

Learners to assemble the materials needed for making sandpaper

**STEP 3**

Guide the learners to carry out the project in the learners book page 124

**STEP 4**

Guide the learners to use digital devices to search for effects of friction on surfaces

Guide a discussion on the effects of friction

**STEP 5**

Guide the learners to discuss the effects of friction on surfaces in contact

**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:**

Let the learners brainstorm on the issue in the find out more section.

Ask them to do a write up to explain that would arise if friction force did not exist

* This exercise will enhance critical thinking

**REFLECTION ON THE LESSON:**

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