**2023 GRADE 7 MATHEMATICS LESSON PLAN TERM 3 - SMARTMINDS**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – Percentage Discount

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

* Calculate percentage discount of different goods and services
* Appreciate profit and loss in real life situation

**KEY INQUIRY QUESTION (S)**

* Why do we use money in daily activities?
* What considerations would we make when buying or selling

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 166

Price list, classroom shop, electronic money tariff charts, sample of a budget

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Ask learners to draw a table similar to the one on page 166 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Let them complete it by filing the blank rows in the column of discount and percentage discount

**STEP 2**

Choose learners from random groups to share their work with the rest of the class

**STEP 3**

Learners to identify the formula of calculating percentage discount as

**Percentage Discount = discount/ marked price X 100%**

**STEP 4**

Take the learners through Examples 11 and 112 on page 166/167 of the learner’s book

* Creativity and imagination is developed as learners learn to calculate the discount in business

**STEP 5**

Ask individual learners to task 6 questions 1- 2 page 167 of the learner’s book

* Safety and disaster risk management is promoted as learners learn to safeguard business and reduce loss

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 6 questions 3-5 on page 167 of the learner’s book

Learners to do more practise on calculating percentage DISCOUNT

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – Commission and percentage commission

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

* Calculate Commission and percentage commission in real life situations
* Appreciate profit and loss in real life situation

**KEY INQUIRY QUESTION (S)**

* Why do we use money in daily activities?
* What considerations would we make when buying or selling?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 167

Price list, classroom shop, electronic money tariff charts, sample of a budget

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Ask learners to read the story on page 167 of the learner’s book

Ask the learners to find out how much extra money Zawadi and Maxwell earned in the month of July

Guide the learners to talk about the name given to the extra money earned by Zawadi and Mxwell in the month of July

**LESSON DEVELOPMENT**

**STEP 1**

Let the learners read the story on page 168 of the learner’s book page 168

Ask them to draw the table shown in the story in their books

**STEP 2**

Ask them to work out the percentage commission using the formula given on the percentage column and fill in the blank rows in that column

Choose learners from random groups to share their work with the rest of the class

**STEP 3**

Learners to identify the formula of calculating percentage commission as

**Percentage commission = commission / value of goods sold X 100%**

**STEP 4**

Take the learners through Examples 13, 14 and 15 on page 168/169 of the learner’s book

* Creativity and imagination is developed as learners learn to calculate percentage discount in business

**STEP 5**

Ask individual learners to task 7 questions 1- 3 page 169/170 of the learner’s book

* Safety and disaster risk management is promoted as learners learn to safeguard business and reduce loss

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 7 questions 4-6 on page 170 of the learner’s book

Learners to do more practise on calculating percentage commission

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – bills – interpreting bills

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

* Interpret bills at home
* Prepare bills
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* Why do we use money in daily activities?
* What considerations would we make when buying or selling?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 170

Price list, classroom shop, electronic money tariff charts, sample of a budget

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Draw the attention of the learner to activity 10 page 170 of the learner’s book

Ask them to keenly look at the pictures shown on page 170 of the learner’s book an state what they can see in those pictures

**LESSON DEVELOPMENT**

**STEP 1**

Probe the learners to explain what they think a bill is.

Ask them to list e components of a bill

**STEP 2**

Guide the learners to use digital devices to search the internet for types of bills

**STEP 3**

Ask each group to share their findings with the rest of the learners in the class

**STEP 4**

Guide the learners to identify and mention different types of bills that they encounter in their daily lives

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Use IT devices to learn more about types of bills

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – bills – preparing bills

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

* Interpret bills at home
* Prepare bills
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* Why do we use money in daily activities?
* What considerations would we make when buying or selling?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 171

Price list, classroom shop, electronic money tariff charts, sample of a budget/bill

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Let learners to carefully read the story on page 171 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Ask them to prepare Gillian’s bill, based on the information given in the story.

**STEP 2**

Let them find out how much Gillian paid for the items

Ask them to find the balance she got after paying for items using a thousand shillings note

Choose random groups to share their findings with the rest of the learners in class

**STEP 3**

Guide the learners in preparing a bill,

Let them identify the symbol @ is used to mean per unit

**STEP 4**

Take the learners through example 16 on pages 171 and 172 of the learner’s book

**STEP 5**

Ask individual learners to do task 8 on pages 172/173 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 8 questions 4-6 on page 172/173 of the learner’s book

Learners to do more practise on preparing bills

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – Postal charges

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

* Work out postal charges in real life situations
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* Why do we use money in daily activities?
* What considerations would we make when buying or selling?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 173

Price list, classroom shop, electronic money tariff charts,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Lead learners to an imaginary post office. Guide them in identifying about the services offered in the post office and the charges for the service

**LESSON DEVELOPMENT**

**STEP 1**

Instruct learners to read the story on pages 173/174 of the learner’s book

**STEP 2**

Ask the learners to carefully study the table given on page 173 and let them discuss the cost of sending different items

Choose random groups to share their findings with the rest of the learners in class

**STEP 3**

Guide the learners in identifying the kinds of services offered in a post office and how to interpret the tables showing postal charges

**STEP 4**

Take the learners through example 17 and 18 on pages 175 of the learner’s book

**STEP 5**

Ask individual learners to do task 9 on pages 175 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 10 on page 177 of the learner’s book

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – mobile money service

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

* Identify mobile money services for different transactions
* Work out mobile money transactions in real life situations
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* What is involved in mobile money transactions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 173

Price list, classroom shop, electronic money tariff charts,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Let the learners read the story on page 178 of the learner’s book

Probe the learners to identify the mobile money services mentioned in the story that they read

Learners to share their findings with the rest of the class

**LESSON DEVELOPMENT**

**STEP 1**

Ask the learners to draw a word puzzle similar to the one on page 178 of the learner’s book on their exercise books

**STEP 2**

Let them circle five mobile services in the world puzzle

**STEP 3**

Ask random pairs to share their findings with the rest of the class

**STEP 4**

Learners to identify some of the mobile services that they have encountered in their daily lives

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

**REFLECTION ON THE LESSON:**

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**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – mobile money transactions

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

* Identify mobile money services for different transactions
* Work out mobile money transactions in real life situations
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* What is involved in mobile money transactions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 179

Price list, classroom shop, electronic money tariff charts,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Let learners carefully study the table about Uwezo Mobile Money found on page 179 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Ask the learners to draw a word puzzle similar to the one on page 178 of the learner’s book on their exercise books

**STEP 2**

Lead them in a discussion on the charges for different money transactions on the table

**STEP 3**

Ask them to find how much it cost to send different amount of money through Uwezo mobile money

Ask them to find out how much it costs to withdraw different amount of money using Uwezo mobile money

**STEP 4**

Take learners through example 19 on page 180 of the learner’s book

**STEP 5**

Ask individual learners to do Task 11 on page 181 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 11 question 2 on page 181 of the learner’s book

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **MEASUREMENT**

**SUB STRAND**: MONEY – mobile money service

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

* Identify mobile money services for different transactions
* Work out mobile money transactions in real life situations
* Recognise use of money in day to day activities

**KEY INQUIRY QUESTION (S)**

* What is involved in mobile money transactions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 181

Price list, classroom shop, electronic money tariff charts,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Instruct the learner’s to carefully study the table on Bora Cash lending app, found on page 181and 182 of the learner’s book

**STEP 2**

Ask them to find out how much interest is charged on the following loans

1. Shs 4000 2. Shs 7500 3. Shs 22200

**STEP 3**

Ask them to find out how much in total is paid after one takes the following loans

1. Shs 10000 2. Shs 17000 3. Shs 34000

**STEP 4**

Take learners through example 20 on page 182 of the learner’s book

**STEP 5**

Ask individual learners to do Task 12 on page 183 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to task 12 question 3 on page 183 of the learner’s book

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – Angles on a straight line**

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

1. Relate different types of angles on a straight line in real life situations

2. Measure angles in a straight line

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 184

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Learners to mention types of angles they learnt in the previous grade

**LESSON DEVELOPMENT**

**STEP 1**

Instruct learners to have a walk outside the classroom.

The learners to identify the angles made by different objects in relation to the ground

* This activity will help learners to develop creativity and imagination as they discuss in groups

**STEP 2**

Guide learners to watch a video clip on angles

* This will promote digital literacy

**STEP 3**

Guide learners to do group activity in the learner’s book page 184

* This will promote critical thinking and problem solving

Guide them to fill in the table provided in the learner’s book using the angles observes

**STEP 4**

Ask learners to share their results with the rest of class

**CONCLUSION:**

Ask oral questions about angles to conclude the lesson

**EXTENDED ACTIVITIES:**

Learners to identify angles in the environment during play time

Learners to practise relating a turn to angles during free time

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – Angles on a straight line**

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

1. Relate different types of angles on a straight line in real life situations

2. Measure angles in a straight line

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 184

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Instruct learners to have a walk outside the classroom.

The learners to identify the angles made by different objects in relation to the ground

Learners to mention types of angles they learnt in the previous grade

**LESSON DEVELOPMENT**

**STEP 1**

Instruct learners to draw a line.

Let them label the line as AB

Ask the learners to mark point P on the line

**STEP 2**

Task the learners to place a protractor at point P and measure angle APB.

**STEP 3**

Guide learners to draw different angles on a straight line and find their sum

Learners to conclude that angles in a straight line should sum up to 180 degrees

**STEP 4**

Select random groups to share their results with other members of the class

Probe the learners to explain their results

Let them discuss the sum of angle on a straight line

**STEP 5**

Take learners through examples 1 and 2 on page 185 of the learner’s book

**STEP 6**

Ask individual learners to do task 1 on page 186 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 1 question 2 on page 186 in the learner’s book

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – Angles at a point**

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

1. Solve angles at a point in learning situations

2. Measure angles at a point

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 186

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Ask learners to trace and cut out the diagram given on page 186 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Instruct learners to use a protractor and measure all the angles in the diagram.

Guide the learner’s to find the sum of the angles and conclude that the angles at a point add up to 360 degrees

**STEP 2**

Teacher to select random groups to share their findings with other members of the class

Probe the learners to explain their results

Learners should be able to come to a conclusion that angles at a point add up to 360 degrees

**STEP 3**

In pairs, guide the learners to trace and cut out figure on page 186 of the learner’s book

Guide them to use to measure and identify the ones which are equal

**STEP 4**

Take learners through examples 3 and 4 on page 187 of the learner’s book

**STEP 5**

Ask individual learners to do task 2 on page 188 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 2 question 2 on page 186 in the learner’s book

**REFLECTION ON THE LESSON:**

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|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – Angles on a transversal**

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

1. Relate angles on a transversal in different situations

2. Measure alternate angles

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 188

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

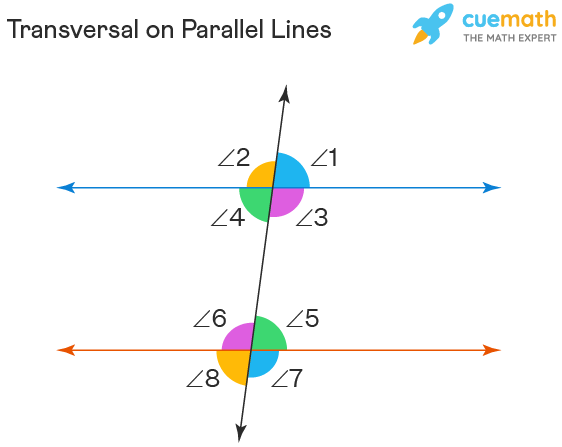
Guide learners to draw two parallel lines

The learners to then draw a straight line that crosses the parallel lines and identify the line as transversal

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to mark the angles as shown in the figure below



**STEP 2**

Guide the learners to use a pair of scissors to gut out angles 4 and 5

Learners to observe safety precautions as they cut out angles

**STEP 3**

In pairs, guide the learners to place angle 5 on top of angle 4 and compare their sizes

Learners should be able to see that the angles are equal

Guide the learners to identify the angles as alternate angles

**STEP 4**

Take learners through examples 5 on page 189 of the learner’s book

**STEP 5**

Ask individual learners to do task 3 questions 1 on page 189 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s workand assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 3 question 2 on page 189 in the learner’s book

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – corresponding angles**

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

1. Relate angles on a transversal in different situations

2. Measure corresponding angles

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 190

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

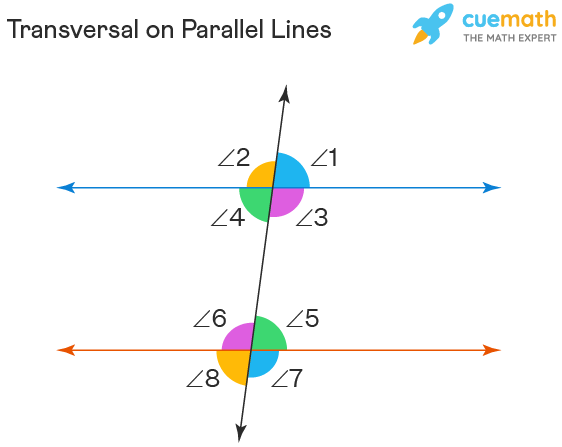
Guide learners to draw two parallel lines

The learners to then draw a straight line that crosses the parallel lines and identify the line as transversal

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to mark the angles as shown in the figure below



**STEP 2**

Guide the learners to use a pair of scissors to gut out angles 5 and 1

Learners to observe safety precautions as they cut out angles

**STEP 3**

In pairs, guide the learners to place angle 5 on top of angle 1 and compare their sizes

Learners should be able to see that the angles are equal

Guide the learners to identify the angles as corresponding angles

**STEP 4**

Take learners through examples 6 on page 190 of the learner’s book

**STEP 5**

Ask individual learners to do task 4 questions 1 and 2 on page 191 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 3 question 3 on page 189 in the learner’s book

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – co-interior angles**

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

1. Relate angles on a transversal in different situations

2. Measure co-interior angles

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 192

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

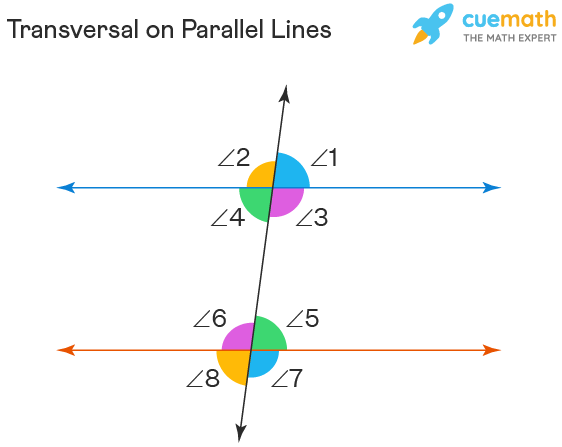
Guide learners to draw two parallel lines

The learners to then draw a straight line that crosses the parallel lines and identify the line as transversal

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to mark the angles as shown in the figure below



**STEP 2**

Guide the learners to use a pair of scissors to gut out angles 3 and 5

Learners to observe safety precautions as they cut out angles

**STEP 3**

In pairs, guide the learners to place angle 5 on top of angle 1 and compare their sizes

Guide the learners to place the angles on a straight line

Guide the learners to establish that co interior angles add up to 180 degrees

**STEP 4**

Take learners through examples 7 on page 192 of the learner’s book

**STEP 5**

Ask individual learners to do task 5 questions 1 and 2 on page 193 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 3 question 3 on page 193 in the learner’s book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **ANGLES – angles in a parallelogram**

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

1.

2. Solve angles in a parallelogram in different situations

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 192

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail straws and string to each and every group

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to form a rectangular shape using the straws

**STEP 2**

With the rectangular shape, the learners to hold the bottom firmly and push the top sideways

They will form a parallelogram

**STEP 3**

Guide the learners to trace the parallelogram on a piece of paper and measure the angles of the parallelogram

Guide the learners to establish that interior angles in a parallelogram add up to 360 degrees

**STEP 4**

Take learners through examples 7 on page 194 of the learner’s book

**STEP 5**

Ask individual learners to do task 6 questions 1 on page 195 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 3 question 2 on page 193 in the learner’s book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- TRIANGLE**

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

1. Identify angle properties of polygon - Triangle

2.

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 193

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify a triangle

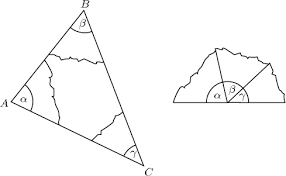
**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw the triangle on page 195 of the learner’s book

**STEP 2**

Learners to then cut out angles a, b and c and make a straight line as shown



**STEP 3**

Guide the learners to establish that angles in a triangle sum up to 180 degrees

**STEP 4**

Take learners through the different types of triangle

**CONCLUSION:**

Guide learners to draw different triangles and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a triangle during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- RECTANGLE**

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

1. Identify angle properties of polygon - rectangle

2. Measure the interior angles of a rectangle

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 196

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify a rectangle

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw the rectangles on page 195 of the learner’s book

**STEP 2**

Guide the learners to use a ruler to measure the length and the width of the rectangle

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the rectangles

**STEP 4**

Guide the learners to establish that the interior angles of rectangle sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different rectangles and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a rectangle during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- SQUARES**

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

1. Identify angle properties of polygon - squares

2. Measure the interior angles of a square

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 197

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify a square

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw the square on page 197 of the learner’s book

**STEP 2**

Guide the learners to use a ruler to measure the sides of the square

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the square

**STEP 4**

Guide the learners to establish that the interior angles of rectangle sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different sizes of square and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a square during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- rhombus**

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

1. Identify angle properties of polygon - rhombus

2. Measure the interior angles of a rhombus

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 197

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a rhombus

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a rhombus on page 197 of the learner’s book

**STEP 2**

Guide the learners to use a ruler to measure the sides of the rhombus

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the rhombus

**STEP 4**

Guide the learners to establish that the interior angles of rhombus sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different sizes of rhombus and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a rhombus during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- rhombus**

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

1. Identify angle properties of polygon - rhombus

2. Measure the interior angles of a rhombus

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 197

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a rhombus

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a rhombus on page 197 of the learner’s book

**STEP 2**

Guide the learners to use a ruler to measure the sides of the rhombus

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the rhombus

**STEP 4**

Guide the learners to establish that the interior angles of rhombus sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different sizes of rhombus and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a rhombus during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- parallelogram**

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

1. Identify angle properties of polygon - parallelogram

2. Measure the interior angles of a parallelogram

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 198

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a parallelogram

Let them model a shape of parallelogram

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a parallelogram on page 198 of the learner’s book

**STEP 2**

Guide the learners to use a ruler to measure the sides of the parallelogram

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the parallelogram

**STEP 4**

Guide the learners to establish that the interior angles of parallelogram sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different sizes of parallelogram and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a parallelogram during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- trapezium**

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

1. Identify angle properties of polygon - trapezium

2. Measure the interior angles of a trapezium

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 197

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a parallelogram

Let them model a shape of trapezium

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a trapezium on page 198 of the learner’s book

**STEP 2**

Guide the learners to identify how many pairs of parallel lines are there in the trapezium

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the trapezium

**STEP 4**

Guide the learners to establish that the interior angles of trapezium sum up to 360 degrees

Let them establish that it is equal to 4 right angles

**CONCLUSION:**

Guide learners to draw different sizes of trapezium and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a trapezium during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- pentagon**

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

1. Identify angle properties of polygon - pentagon

2. Measure the interior angles of a pentagom

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 199

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a pentagon

Let them model a shape of pentagon

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a pentagon on page 199 of the learner’s book

**STEP 2**

Guide the learners to identify how many sides are there in a pentagon.

Using a ruler, guide the Learners to measure the length of each side

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the pentagon

**STEP 4**

Guide the learners to establish that the interior angles of pentagon sum up to 540 degrees

Let them establish that it is equal to 6 right angles

**CONCLUSION:**

Guide learners to draw different sizes of pentagon and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a pentagon during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Angle property of polygons - interior angles of polygons- hexagon**

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

1. Identify angle properties of polygon - hexagon

2. Measure the interior angles of a hexagon

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 200

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Teacher to avail shapes of different objects, guide the learners to identify any object in form of a hexagon

Let them model a shape of hexagon

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and draw a hexagon on page 200 of the learner’s book

**STEP 2**

Guide the learners to identify how many sides are there in a hexagon

Using a ruler, guide the Learners to measure the length of each side

**STEP 3**

Using a protractor, learners to measure the size of the interior angles of the hexagon

**STEP 4**

Guide the learners to establish that the interior angles of hexagon sum up to 540 degrees

Let them establish that it is equal to 8 right angles

**CONCLUSION:**

Guide learners to draw different sizes of hexagon and find the sum of the interior angles

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to identify objects at home with the shape of a hexagon during their free time

Let them identify the angles

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **relating interior angles and the number of sides of a polygon**

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

1.

2. Relate interior angles and the number of sides of a polygon

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 200

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and cut out the figure on page 200 of the learner’s book

**STEP 2**

Guide them to divide the pentagon into 3 triangles

**STEP 3**

Guide the learners to determine the sum of the interior angles of a pentagon in relation to the number of triangles

**STEP 4**

Guide the learners to learners establish

* Pentagon has **3 triangles**
* Sum of interior angles of a triangles is **180 degrees**
* Therefore, the sum of interior angles of a pentagon is **180º \* 3 = 540º**

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to model a polygon shape

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **relating interior angles and the number of sides of a polygon**

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

1.

2. Relate interior angles and the number of sides of a polygon

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 200

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and cut out the figure on page 201 of the learner’s book

**STEP 2**

Guide them to divide the pentagon into 4 triangles

**STEP 3**

Guide the learners to determine the sum of the interior angles of a hexagon in relation to the number of triangles

Guide the learners to learners establish

* Pentagon has **4 triangles**
* Sum of interior angles of a triangles is **180 degrees**
* Therefore, the sum of interior angles of a pentagon is **180º \* 4 = 720º**

**STEP 4**

Guide the learners to relate the sum of the interior angles of the hexagon to the number of right angles

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide the learners to use the same method of sub division of polygons to determine the sum of the following polygons

1. Rectangle
2. Square
3. parallelogram,
4. Rhombus
5. Trapezium

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **relating exterior angles and the number of sides of a polygon**

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

1.

2. Relate exterior angles and the number of sides of a polygon

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 202

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and cut out the quadrilateral on page 202 of the learner’s book

**STEP 2**

Guide the learners to measure the size of the exterior angles A, B, C and D

Let the learners to sum up the exterior angles and note down

**STEP 3**

Guide the learners to share their findings in class

**STEP 4**

Guide the learners to establish that the exterior angles of the quadrilateral sum up to 360 degrees

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **relating exterior angles and the number of sides of a polygon**

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

1.

2. Relate exterior angles and the number of sides of a polygon

3. Admire use of angles in real life

**KEY INQUIRY QUESTION (S)**

* What are angles
* Where do we use angles in real life situations?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 202

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and cut out the quadrilateral on page 203 of the learner’s book

**STEP 2**

Guide the learners to measure the size of the exterior angles

Let the learners to sum up the exterior angles and note down

Guide the learners to share their findings in class

**STEP 3**

Ask the learners to draw and find the sum of the exterior angles of the triangle, rectangle , square, parallelogram, rhombus, trapezium and hexagon

Give learners to share their findings

**STEP 4**

Teacher to go round checking and marking the pupil’s workand assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

**CONCLUSION:**

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 8 question 2 on page 204 in the learner’s book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – measuring angles**

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

1. Identify geometrical instruments used to measure angles

2. Measure different angles in learning situation

3. Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 207

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Guide the learners to mention some of the instruments in their geometrical sets

Guide the learners to discuss the uses of each of the instruments in their geometrical sets.

**LESSON DEVELOPMENT**

**STEP 1**

Ask the learners to trace and draw the figure on page 207 of the learner’s book

**STEP 2**

Guide the learners to measure angles ABC, BAC, ACB, and ACD using a protractor

**STEP 3**

Select learners randomly to present their work to the class.

Probe them to show how they measured the angles

**STEP 4**

Take the learners through example 1 on page 207 of the learner’s book

**STEP 5**

Ask individual learners to do task 1 question 1 on page 208 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s workand assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 1 question 2 on page 208 in the learner’s book

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – bisecting angles**

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

* Identify geometrical instruments used in bisecting angles
* Bisect angles using a ruler and a pair of compasses only in learning situations
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 208

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Ask the learners to trace and draw the figure on page 208 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

Ask learners to measure angles ABC, ABD and DBC

Guide the learners to establish that angle ABD is equal DBC. Line DB is the bisector of angle ABC (meaning that it cuts angle ABC into 2 equal parts)

**STEP 2**

In pairs, ask learners to trace the angle shown on page 209

Guide them to bisect the angle following the steps given in the learner’s book page 209

**STEP 3**

Ask learners to measure angles KLO and OLM

Let learners share their findings

**STEP 4**

Take the learners through another example on the chalk board

**STEP 5**

Ask individual learners to do task 2 question 1 on page 210 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s workand assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 2 question 2 on page 210 in the learner’s book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 90º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 90ºusing a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 211

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Instruct the learners to draw a line of any suitable length and mark a point A on the line

**STEP 2**

Using a pair of compasses and point A as the centre, guide the learners to draw arcs to cut the line pn either side of A

Let them mark the arcs as X and Y

**STEP 3**

With centres X and Y, learners to use the same radii to make arcs above line XY

Let them name the point of intersection of the arcs as T

**STEP 4**

Guide the Learners to join points T and A and measure angles TAY and TAX

Let learners establish that the angles are 90º each

**STEP 5**

Teacher can demonstrate to each group/individual the steps of constructing an angle of 90º again while guiding them

Offer assistance to learners who faced difficulties in constructing an angle of 90º

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide learners to construct an angle of 90 degrees at home during their free time

**REFLECTION ON THE LESSON:**

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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 45º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 45 ºusing a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 212

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to construct an angle of 90 degrees

**STEP 2**

Guide the learners by demonstrating to bisect the angle

Learners to observe keenly while the teacher demonstrates to bisect an angle of 90 degrees

**STEP 3**

Learners toconstruct an angle of 45 degrees

Guide the learners in following the steps provided in the learner’s book page 212

Offer assistance to learners who faced difficulties

**STEP 4**

Teacher can demonstrate to each group/individual the steps of constructing an angle of 45º again while guiding them

**STEP 5**

Ask individual learners to do task 3 question 1 on the learner’s book page 212

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide learners to construct an angle of 45 degrees at home during their free time

Learners to individually work out questions in TASK 3 question 2 on page 212 in the learner’s book at home

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 60º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 60º using a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 213

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a line of any suitable length and mark a point A on the line

**STEP 2**

With A as the centre, guide the learners to make an arc D intersecting the line at Y

With Y as the centre and keeping the same radius, guide learners to draw another arc C to intersect the first at point K

**STEP 3**

Guide the learners to join point K to point A and measure angle KAY,

Let learners establish angle KAY is 60 degrees

**STEP 4**

Learners toconstruct an angle of 60 degrees

Guide the learners in following the steps provided in the learner’s book page 213

Offer assistance to learners who faced difficulties

**STEP 5**

Teacher can demonstrate to each group/individual the steps of constructing an angle of 90º again while guiding them

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide learners to construct an angle of 60 degrees at home during their free time

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 30º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 30 ºusing a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 214

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to construct an angle of 60 degrees

**STEP 2**

Guide the learners by demonstrating to bisect the angle

Learners to observe keenly while the teacher demonstrates to bisect an angle of 60 degrees

**(**Each angle will be 30 degrees since 60 divided by 2 =30 degrees)

**STEP 3**

Learners to construct an angle of 30 degrees

Guide the learners in following the steps provided in the learner’s book page 214

Offer assistance to learners who faced difficulties

**STEP 4**

Teacher can demonstrate to each group/individual the steps of constructing an angle of 30º again while guiding them

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide learners to construct an angle of 45 degrees at home during their free time

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 120º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 120º using a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 215

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a line AB of any suitable length and mark point m on the line

**STEP 2**

With M as the centre, guide learners to make an arc intersecting line at C

With C as the centre and keeping the same radius, guide learners to draw another arc to intersect the first at point E

**STEP 3**

Guide the learners to join point M to point E and measure angle EMD

Guide the learners to establish that angle EMD should be equal to 120 degrees

**STEP 4**

Learners toconstruct an angle of 120 degrees

Guide the learners in following the steps provided in the learner’s book page 215

Offer assistance to learners who faced difficulties

**STEP 5**

Teacher can demonstrate to each group/individual the steps of constructing an angle of 120º again while guiding them

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Guide learners to construct an angle of 120 degrees at home during their free time

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an angle of 105º**

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

* Identify geometrical instruments used in constructing angles
* Construct an angle of 105º using a ruler and a pair of compasses only in learning situation
* Measure different angles in learning situation
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 215

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a line MN of any suitable length and mark point T on the line

**STEP 2**

With T as the centre, guide learners To construct an angle of 90 degrees such that angle NTO = 90º

On the other side of the NTO, guide learners to construct angle of 60º (MKT=60º)

**STEP 3**

Ask learners to bisect angle KTO and name the angle bisector PT

Guide the learners to measure angle PTN.

Let learners establish that angle PTN is 105º

**STEP 4**

Learners toconstruct an angle of 105 degrees

Guide the learners in following the steps provided in the learner’s book page 215

Offer assistance to learners who faced difficulties

**STEP 5**

Ask individual learners to do task 4 questions 1 and 2 in the learner’s book pages 217/218

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 4 question 3 on page 218 in the learner’s book at home

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an equilateral triangle**

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

* Identify types of triangles
* Construct an equilateral triangle using a ruler and a pair of compass only in different situations
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 218

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Guide the learners to identify the different types of triangle

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a horizontal line and mark point Y on the line

Using a pair of compasses and a ruler, guide learners to mark point X 6cm away from Y

**STEP 2**

With Y as the centre and the same radius, guide learners to draw an arc above the line

With X as the centre and with the same radius, guide the learners to draw another arc B above line to intersect the other arc at Z

**STEP 3**

Ask the learners to use a ruler to join point Z to Y, and point Z to X

Ask learners to measure angles XYZ, ZXY and XZY

Guide the learners to establish that the angles formed are all equal (60 degrees) hence forming an equilateral triangle

**STEP 4**

Learners to construct an equilateral

Guide the learners in following the steps provided in the learner’s book page 218

Offer assistance to learners who faced difficulties

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to do task 5 question 1 on page 221 of the learners book

Learners to practise constructing an equilateral triangle at home during their free time

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing an isosceles triangle**

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

* Identify types of triangles
* Construct an isosceles triangle using a ruler and a pair of compass only in different situations
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 219

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Guide the learners to identify the different types of triangle

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a horizontal line and mark point M on the line

Using a pair of compasses and a ruler, guide learners to mark point N 5cm away from M

**STEP 2**

With M as the centre and the same radius of 7cm, guide learners to draw an arc Y above the line

With N as the centre and with the same radius of 5cm, guide the learners to draw another arc above line to intersect the other arc at P

**STEP 3**

Ask the learners to use a ruler to join point P to M, and point P to N.

Guide the learners to measure sides PM, MN and NP

Ask learners to measure angles MNP, MPN and PMN

Guide the learners to establish that only 2 of the angles formed are all equal hence forming an isosceles triangle

**STEP 4**

Learners to construct an isosceles

Guide the learners in following the steps provided in the learner’s book page 219

Offer assistance to learners who faced difficulties

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to do task 5 question 2 on page 221 of the learners book

Learners to practise constructing an isosceles triangle at home during their free time

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing a scalene triangle**

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

* Identify types of triangles
* Construct an isosceles triangle using a ruler and a pair of compass only in different situations
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 220

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Guide the learners to identify the different types of triangle

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to draw a horizontal line and mark point A on the line

Using a pair of compasses and a ruler, guide learners to mark point B 6cm away from A

**STEP 2**

With A as the centre and the same radius of 5cm, guide learners to draw an arc D above the line

With B as the centre and with the same radius of 8cm, guide the learners to draw another arc E above line to intersect the other arc at C

**STEP 3**

Ask the learners to use a ruler to join point A to C, and point C to B.

Guide the learners to measure sides AB, BC and AC

Ask learners to measure angles ABC, ACB and CAB

Let them share their findings

**STEP 4**

Learners to construct an isosceles

Guide the learners in following the steps provided in the learner’s book page 220

Offer assistance to learners who faced difficulties

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to do task 5 question 3 on page 221 of the learners book

Learners to practise constructing a scalene triangle at home during their free time

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **GEOMETRY**

**SUB STRAND**: **Geometrical Constructions – Constructing circles**

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

* Construct a circle
* Recognise the use of geometric constructions in real life situations

**KEY INQUIRY QUESTION (S)**

* Where do we use geometric constructions in real life situations?
* Why do we use geometric constructions?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 220

Unit angles, protractors, rulers,

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

In groups, Guide learners to use a pair of compass to draw circles of different sizes

Ask learners to measure the diameter and radius of the circles they have drawn

Guide the learners to share their answers with other learners in class

**STEP 2**

In pairs, ask learners to mark point X on a piece of paper

With X as the centre and using a radius of 4cm, guide the learners to draw a circle using a pair of compass

**STEP 3**

Ask learners to measure the diameter of the circle

Ask learners to share their work with other learners

**STEP 4**

Ask individuals to do task 6 question 1 and 2 on page 221 of the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Ask individual learners to do task 6 question 3 on page 221 of the learners book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **Meaning of Data and data collection**

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

* State the meaning of data in learning situation
* Collect data from different situations
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 222

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

In groups, Guide learners to use digital device to search for the meaning of data

Ask learners to write down the meaning of data

Guide the learners to share their findings with other learners in the class

**STEP 2**

Guide the learners to collect data on the favourite fruit by each learner writing his or her favourite fruit on a piece of paper

**STEP 3**

Guide the learners to find out the number of learners who chose each fruit

**STEP 4**

Guide the learners to identify the fruit that was chosen by the highest number of learners

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to collect data during heir free time on the number of girls and boys in each of the classes at school

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **Meaning of Data and data collection**

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

* State the meaning of data in learning situation
* Collect data from different situations
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 222

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

In groups, Guide learners to use digital device to search for the meaning of data

Ask learners to write down the meaning of data

Guide the learners to share their findings with other learners in the class

**STEP 2**

Guide the learners to collect data on the favourite learning area by each learner writing his or her favourite learning on a piece of paper

**STEP 3**

Guide the learners to find out the number of learners who chose each learning area

**STEP 4**

Guide the learners to identify the learning area that was chosen by the highest number of learners

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to collect data during heir free time on the number of girls and boys in the school

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **representing data using frequency tables**

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

* Collect data from different situations
* Draw frequency distribution table of data from different sources
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 223

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson learnt in grade 6

Teacher to avail the class register in class

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to study the register and identify the number of learners absent on each day

**STEP 2**

Let them record the number of absent learners in a table using tally marks

Walk around the class to check how the learners are filling in the frequency table and give guidance to learners who are having challenges

* Social cohesion will be developed as learners collect data
* Responsibility will be developed as learners record data accurately

**STEP 3**

Allow them to show their table and compare their results with those of other groups in class

Let the learners discuss the cases of absenteeism in school

* Peace and unity are enhanced as learners share findings in groups.

**STEP 4**

Take the learners through example 1 on page 223 of the learner’s book

**STEP 5**

Ask individual learners to do Task 1 on page 224 of the learner’s book

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to practise more on data collection and presentation during their free time

**REFLECTION ON THE LESSON:**

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **Determining a suitable scale for graphs**

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

* Collect data from different situations
* Draw frequency distribution table of data from different sources
* Determine suitable scale for graphs of data from different situations
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 225

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to read the story of Anne and Josephine

Let the learners determine who between the two used an appropriate scale

**STEP 2**

Guide the learners to give the reasons for the answer they choose

**STEP 3**

Guide the learners to come up with other appropriate scales that are learner friendly

**STEP 4**

Guide the learners to establish that multiples of 2 and 5 are the best to make division in a scale

**STEP 5**

Guide the learners to look at the table on page 225 of the learner’s book

Ask learners to choose a suitable scale on each axis

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to practise more on data collection and presentation during their free time

Learners to practise choosing suitable scales for each data they had collected

**REFLECTION ON THE LESSON:**

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

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|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **pictographs**

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

* Collect data from different situations
* Draw pictographs of data from real life situations
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 226

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

**LESSON DEVELOPMENT**

**STEP 1**

Guide the learners to trace and cut out the pictures on the chart on page 226 of the learner’s book

Let learners observe precautionary measures when using sharp objects

**STEP 2**

Guide the learners to stick the animal cut outs in their respective category in the table provided

Ask learners to identify the name of the graph

**STEP 3**

Guide the learners to establish that pictograph is a pictorial representation of data on a chart

**STEP 4**

Take learners through example 2 on page 227 of the learner’s book

**STEP 5**

Ask individual learners to do task 2 on page 227 and 228 at the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 2 question 4 on page 228 in the learner’s book

**REFLECTION ON THE LESSON:**

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**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **bar graphs**

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

* Collect data from different situations
* Represent data using bar graphs

Use IT devices for learning more on bar graphs and for leisure

* Appreciate use of bar graphs in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 226

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Recap the previous lesson on representing data through pictograph

Guide the learners to look at the table on page 229 of the learner’s book

**LESSON DEVELOPMENT**

**STEP 1**

In groups, Guide the learners to make similar boxes as shown on the table

**STEP 2**

In groups, instruct learners to pile the boxes of the same colour

Select random groups to present their work in class

**STEP 3**

Probe the learners to explain how to represent information using bar graphs

Ask them to show the vertical and horizontal axis

Let learners take note that when drawing a bar graph, they should always choose suitable scale so that the graph is not too large or too small

**STEP 4**

Take learners through example 3 on page 230 of the learner’s book

Guide the learners to understand that a bar graph represents data in bars.

Let them know that the bars should be equal width

**STEP 5**

Ask individual learners to do task 3 on page 227 and 228 at the learner’s book

**CONCLUSION:**

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to individually work out questions in TASK 3 question 4 on page 231 in the learner’s book

**REFLECTION ON THE LESSON:**

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

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **bar graphs**

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

* Collect data from different situations
* Represent data using bar graphs

Use IT devices for learning more on bar graphs and for leisure

* Appreciate use of bar graphs in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 226

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Recap the previous lesson on representing data through pilling learnt in grade 6

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity on page229 in the learner’s book and share their findings to other groups

* This will promote honesty as learners give honest feedback to each other.

STEP 2

Guide the learners to do discuss example 3 on page 229 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups
* Education for sustainable development will be acquired as learners relate bar graphs to careers in research and banking

STEP 3

Guide the learners to play digital games on interpreting information from bar graphs

* This will promote digital literacy

STEP 3

Let the learners do task 3 on pages 231 question 3 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

EXTENDED ACTIVITIES:

Learners to practise more on interpreting information from bar graphs during their free time

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

REFLECTION ON THE LESSON:

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| SCHOOL | LEARNING AREA | GRADE | DATE | TIME | ROLL |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

SUB STRAND: **interpreting information from bar graphs**

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

* Collect data
* Interpret information from bar graphs

Use IT devices for learning more on bar graphs and for leisure

* Appreciate use of bar graphs in real life

KEY INQUIRY QUESTION (S)

How can we interpret information from bar graphs?

LEARNING RESOURCES

SMART MINDS Mathematics learner’s book Grade 7 page 232

Data graph worksheets, bar graph worksheets

ORGANISATION OF LEARNING

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

INTRODUCTION

Teacher to review the previous lesson

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity and share their findings to other groups

* Peace and unity are enhanced as learners share findings in groups.

STEP 2

Guide the learners to do discuss example 4 on page 232 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups

STEP 3

Guide the learners to play digital games on interpreting information from bar graphs

* This will promote digital literacy

**STEP 4**

Let the learners do TASK 4 on pages 233 and 235 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to practise more on interpreting information from bar graphs during their free time

Learners to individually work out questions in TASK 4 question 3 on page 235 in the learner’s book

REFLECTION ON THE LESSON:

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **PIE CHART**

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

* Collect data from different situations
* Draw pie charts of data from real life situations
* Appreciate use of pie charts in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 226

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Recap the previous lesson on representing data learnt in grade 6

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity on page 236 in the learner’s book and share their findings to other groups

* This will promote honesty as learners give honest feedback to each other.

**STEP 2**

Let learners understand that we can represent data in a circle by dividing it into sectors

Each sector should represent a proportion of the whole.

This type of graph is known as a pie chart

STEP 3

Guide the learners to do discuss example 5 on page 236 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups
* Education for sustainable development will be acquired as learners relate pie charts to careers in research and banking

**STEP 4**

Let the learners do task 5 on pages 238 question 1 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

EXTENDED ACTIVITIES:

Learners to practise more on interpreting information from pie charts during their free time

Learners to individually work out questions in TASK 4 question 2 on page 238 in the learner’s book

REFLECTION ON THE LESSON:

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **PIE CHART**

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

* Collect data from different situations
* Draw pie charts of data from real life situations
* Appreciate use of pie charts in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 226

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Recap the previous lesson on representing data learnt in grade 6

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity on page 236 in the learner’s book and share their findings to other groups

* This will promote honesty as learners give honest feedback to each other.

**STEP 2**

Let learners understand that we can represent data in a circle by dividing it into sectors

Each sector should represent a proportion of the whole.

This type of graph is known as a pie chart

STEP 3

Guide the learners to do discuss example 6 on page 237 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups
* Education for sustainable development will be acquired as learners relate pie charts to careers in research and banking

**STEP 4**

Let the learners do task 5 on pages 238 question 3 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

EXTENDED ACTIVITIES:

Learners to practise more on interpreting information from pie charts during their free time

Learners to individually work out questions in TASK 4 question 4 on page 238 in the learner’s book

REFLECTION ON THE LESSON:

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**STRAND**:  **DATA HANDLING AND PROBABILITY**

SUB STRAND: **interpreting information from pie charts**

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

* Collect data
* Interpret information from pie chart

Use IT devices for learning more on pie charts and for leisure

* Appreciate use of pie chart in real life

KEY INQUIRY QUESTION (S)

How can we interpret information from pie chart?

LEARNING RESOURCES

SMART MINDS Mathematics learner’s book Grade 7 page 232

Data graph worksheets, bar graph worksheets

ORGANISATION OF LEARNING

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

INTRODUCTION

Teacher to review the previous lesson

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity and share their findings to other groups

* Peace and unity are enhanced as learners share findings in groups.

STEP 2

Guide the learners to do discuss example 7 on page 232 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using pie chart.
* Communication and collaboration will be developed as learners discuss in groups

STEP 3

Guide the learners to play digital games on interpreting information from pie charts

* This will promote digital literacy

**STEP 4**

Let the learners do TASK 6 on page 239 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to practise more on interpreting information from bar graphs during their free time

Learners to individually work out questions in TASK 5 question 3 on page 239 in the learner’s book

REFLECTION ON THE LESSON:

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**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **LINE GRAPHS**

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

* Collect data from different situations
* Draw a line graph of data from real life situations
* Appreciate use of line graph in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 240

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Recap the previous lesson on representing data through bar graphs learnt in grade 6

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to do group activity on page 240 in the learner’s book and share their findings to other groups

Guide the learners to choose appropriate scale for plotting the points

Let the learners plot the points and join the points using a straight line

Ask learner’s to identify the name of the graph

* This will promote honesty as learners give honest feedback to each other.

**STEP 2**

Guide the learners to understand that line graph shows the relationship between two quantities

**STEP 3**

Guide the learners to do discuss example 8 on page 240 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups
* Education for sustainable development will be acquired as learners relate pie charts to careers in research and banking

**STEP 4**

Let the learners do task 7 on pages 241 question 1 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

EXTENDED ACTIVITIES:

Learners to practise more on interpreting information from pie charts during their free time

Learners to individually work out questions in TASK 7 question 2 on page 241in the learner’s book

REFLECTION ON THE LESSON:

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
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**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **LINE GRAPHS**

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

* Collect data from different situations
* Draw a line graph of data from real life situations
* Appreciate use of line graph in real life

Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 240

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

Recap the previous lesson on representing data through bar graphs learnt in grade 6

**LESSON DEVELOPMENT**

**STEP 1**

Guide learners to do group activity on page 240 in the learner’s book and share their findings to other groups

Guide the learners to choose appropriate scale for plotting the points

Let the learners plot the points and join the points using a straight line

Ask learner’s to identify the name of the graph

* This will promote honesty as learners give honest feedback to each other.

**STEP 2**

Guide the learners to understand that line graph shows the relationship between two quantities

**STEP 3**

Guide the learners to do discuss example 8 on page 240 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using bar graphs.
* Communication and collaboration will be developed as learners discuss in groups
* Education for sustainable development will be acquired as learners relate pie charts to careers in research and banking

**STEP 4**

Let the learners do task 7 on pages 241 question 3 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

EXTENDED ACTIVITIES:

Learners to practise more on interpreting information from pie charts during their free time

Learners to individually work out questions in TASK 7 question 4 on page 241in the learner’s book

REFLECTION ON THE LESSON:

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| **SCHOOL** | **LEARNING AREA** | **GRADE** | **DATE** | **TIME** | **ROLL** |
|  | MATH | 7 |  |  |  |

**STRAND**:  **DATA HANDLING AND PROBABILITY**

**SUB STRAND**: **TRAVEL GRAPHS**

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

* Collect data from different situations
* Interpret travel graphs from real life situations
* Promote use of data in real life situations

**KEY INQUIRY QUESTION (S)**

* Why do we collect data?
* How do we represent data?
* How do we interpret data?

**LEARNING RESOURCES**

SMART MINDS Mathematics learner’s book Grade 7 page 240

Data graph worksheets, bar graph worksheets

**ORGANISATION OF LEARNING**

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

**INTRODUCTION**

Teacher to review the previous lesson

LESSON DEVELOPMENT

STEP 1

Guide learners to do group activity and share their findings to other groups

* Peace and unity are enhanced as learners share findings in groups.

STEP 2

Guide the learners to do discuss example 9 on page 242 in the learner’s book

* The activity will help develop creativity and imagination as they represent data using pie chart.
* Communication and collaboration will be developed as learners discuss in groups

STEP 3

Guide the learners to play digital games on interpreting information from travel graphs

* This will promote digital literacy

**STEP 4**

Let the learners do TASK 8 on pages 243 and 244 in the learners book on their own

* The exercise will enhance critical thinking and problem solving as they answer questions in the practise exercise

CONCLUSION

Teacher to go round checking and marking the pupil’s work and assisting the weak learner

* Responsibility will also be developed as they work and submit their work for marking

Ask oral questions to conclude the lesson.

**EXTENDED ACTIVITIES:**

Learners to practise more on interpreting information from bar graphs during their free time

Learners to individually work out questions in TASK 8 question 3 on page 243 in the learner’s book

REFLECTION ON THE LESSON:

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