

RATIONALIZED GRADE 7 MATHEMATICS LESSON PLANS TERM 1

WEEK 1

LESSON: 1

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Place value

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Identify the place value of different digits on a place value chart
- Use a place value chart to show the place value of different digits
- Appreciate the place value chart in showing the place value of whole numbers

KEY INQUIRY QUESTION(S): What is the place value of digit 1 in each number?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Identify the place value of different digits on a place value chart.
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Use a place value chart to show the place value of different digits Use the abacus to show the place value of digit 2 in the number Work out practice exercise 1. Core competence: Critical Thinking, Problem Solving, communication and Collaboration.
10 Minutes	Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 1

LESSON: 2

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Total value

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Identify the total value of various digits
- Make number cards and use them to identifying the total value of digits in a place value chart
- Appreciate the use of number cards to identify the total value of digits on a place value chart

KEY INQUIRY QUESTION(S): What is the total value of each digit in the numbers 35708462?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Identify the total value of various digits
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Make number cards and use them to identifying the total value of digits in a place value chart Use the abacus to find the total value of digit 7 in the number Work out practice exercise 2
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 1

LESSON: 3-4

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Reading and writing numbers in symbols

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Read and write numbers in symbols
- Practice writing dummy cheques for different sums of money
- Apply operations of whole numbers in real life situations

KEY INQUIRY QUESTION(S): Can you give examples of numbers in symbols?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Read and write numbers in symbols
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Make number cards and use them to identifying the total value of digits in a place value chart Use the abacus to find the total value of digit 7 in the number Work out practice exercise 2
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:
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WEEK 1

LESSON: 5

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Rounding off numbers up to the nearest millions

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Identify the place value of different numbers in millions
- Round off numbers up to the nearest millions
- Enjoy using a place value chart to round off numbers up to the nearest millions

KEY INQUIRY QUESTION(S): Can you round off 876 943 to the nearest hundreds of thousands?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Read and write numbers in symbols <u>CONCEPT DEVELOPMENT</u>
10 Minutes	Identify the place value of different numbers in millions Round off numbers up to the nearest hundreds of thousands Round off numbers up to the nearest millions Work out practice exercise 5 Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 2

LESSON: 1

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Rounding off numbers up to the nearest millions

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Round off numbers up to the nearest hundreds of millions
- Prepare and use place value charts to round off numbers up to the nearest hundreds of millions
- Apply operations of whole numbers in real life situations

KEY INQUIRY QUESTION(S): The digit in which place value do we consider when rounding off numbers to the nearest ten thousand hundreds of millions?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Round off numbers up to the nearest hundreds of millions
	<u>CONCEPT DEVELOPMENT</u>
	Prepare and use place value charts to round off numbers up to the nearest hundreds of millions Work out practice exercise 6.
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>.
	Conclusion Teacher to observe learners understanding on operations involving place value.
	Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 2

LESSON: 2

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Natural numbers

Odd and even numbers

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- a) Count and write the number of items using natural numbers
- b) Make number cards and use them to classify natural numbers as even and odd numbers
- c) Appreciate use of natural numbers in real life situation.

KEY INQUIRY QUESTION(S): Which numbers are divisible by 2 without a remainder?

LEARNING RESOURCES: Place value apparatus

Number charts
Number cards
Multiplication tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Count and write the number of items in the classroom using natural numbers
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Arrange the number of items counted from the largest to the smallest Make number cards and use them to classify natural numbers as even and odd numbers Work out practice exercise 7
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 2

LESSON: 3

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Prime numbers

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Write down numbers 1 to 100 on a chart
- Use the chart to classify natural numbers as prime numbers in the chart
- Enjoy sharing their work with other groups

KEY INQUIRY QUESTION(S): Which numbers have exactly two factors?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Count and write the number of items in the classroom using natural numbers
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Write down numbers 1 to 100 on a chart Use the chart to classify natural numbers as prime numbers in the chart Work out practise exercise 8
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

WEEK 2

LESSON: 4

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Operations on whole numbers

Combined operations (1)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

KEY INQUIRY QUESTION(S): Which numbers have exactly two factors?

LEARNING RESOURCES: Place value apparatus

Number charts Number

cards Multiplication

tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Count and write the number of items in the classroom using natural numbers <u>CONCEPT DEVELOPMENT</u> • Explain how to perform a combined operation involving addition and subtraction of different numbers • Perform combined operations involving addition and subtraction in the correct order • Apply operations of whole numbers in real life situations
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

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WEEK 2

LESSON: 5

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Operations on whole numbers

Combined operations (1)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

KEY INQUIRY QUESTION(S): Which numbers have exactly two factors?

LEARNING RESOURCES: Place value apparatus

Number charts Number

cards Multiplication

tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Count and write the number of items in the classroom using natural numbers <u>CONCEPT DEVELOPMENT</u> • Explain how to perform a combined operation involving addition and subtraction of different numbers • Perform combined operations involving addition and subtraction in the correct order • Apply operations of whole numbers in real life situations
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self-

remarks:

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WEEK 3

LESSON: 4

STRAND: NUMBERS

SUB-STRAND: Whole Numbers, Operations on whole numbers

Combined operations (1)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Explain how to perform a combined operation involving division, multiplication, addition and subtraction of different numbers
- Perform combined operation involving division, multiplication, addition and subtraction in the correct order
- Apply operations of whole numbers in real life situations

KEY INQUIRY QUESTION(S): Which numbers have exactly two factors?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Count and write the number of items in the classroom using natural numbers
	<u>CONCEPT DEVELOPMENT</u>
	• Explain how to perform a combined operation involving addition and subtraction of different numbers • Perform combined operations involving addition and subtraction in the correct order • Apply operations of whole numbers in real life situations
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration.</u>
	Conclusion Teacher to observe learners understanding on operations involving place value.
	Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to find place values of various digits.

Reflection in the lesson/self remarks:

WEEK 3

LESSON: 5

STRAND: NUMBERS

SUB-STRAND: Factors, Composite numbers

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Express composite numbers as a product of prime factors in different situations
- Write factors of composite numbers by factorization, factor tree, factor rainbow in charts, colour charts or cards using locally available materials
- Reflect on use of factors in real life situations

KEY INQUIRY QUESTION(S): What is a composite number?

Can you give examples?

LEARNING RESOURCES: Place value apparatus

Number charts Number

cards Multiplication

tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Express composite numbers as a product of prime factors in different situations
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Write factors of composite numbers by factorization, factor tree, factor rainbow in charts, color charts or cards using locally available materials
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations involving place value. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to demonstrate how to do operations involving composite numbers.

Reflection in the lesson/self-

remarks:

WEEK 4

LESSON: 1

STRAND: NUMBERS

SUB-STRAND: Factors, Greatest Common Divisor (GCD)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Work out the Greatest Common Divisor (GCD) of numbers by factor method in different situation
- Use factors to determine the GCD using number cards
- Apply the Greatest Common Divisor (GCD) in real life situations

KEY INQUIRY QUESTION(S): How do we use factors in day-to-day activities?

What is the GCD of 12 and 16?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Work out the Greatest Common Divisor (GCD) of numbers by factor method in different situation
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Work out the Greatest Common Divisor (GCD) of numbers by factor method in different situation
10 Minutes	Use factors to determine the GCD using number cards Work out practice exercise 3 Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of Greatest Common Divisor. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to find Greatest Common Divisors in given exercise.

Reflection in the lesson/self-

remarks:

WEEK 4

LESSON: 2

STRAND: NUMBERS

SUB-STRAND: Factors, Least Common Divisor (LCM)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Work out the Least Common Multiples (LCM) of numbers by factor method in different situation
- Use factors to determine the LCM using number cards
- Apply the Least Common Multiples (LCM) in real life situations.

KEY INQUIRY QUESTION(S): What is the LCM of 8 and 20?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Work out the Least Common Multiples (LCM) of numbers by factor method in different situation
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Work out the Least Common Multiples (LCM) of numbers by factor method in different situation
10 Minutes	Use factors to determine the LCM using number cards Work out practice exercise 4 Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to find Least Common Multiples in given exercise.

Reflection in the lesson/self-

remarks:
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WEEK 4

LESSON: 3

STRAND: NUMBERS

SUB-STRAND: Factors, Application of Greatest Common Divisor (GCD) and Least Common Divisor (LCM)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Work out application questions and solve problems relating to the GCD and the LCM in real life situations.
- Determine the GCD and LCM of numbers using IT to perform exercises on factors such as games
- Reflect on use of factors in real life situations

KEY INQUIRY QUESTION(S): How do we apply the GCD and the LCM in day-to-day activities?

LEARNING RESOURCES: Place value apparatus

Number charts
Number cards
Multiplication tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Work out the Least Common Multiples (LCM) of numbers by factor method in different situation
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Work out application questions and solve problems relating to the GCD and the LCM in real life situations. Determine the GCD and LCM of numbers using IT to perform exercises on factors such as games Work out practice exercise 5
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to find Least Common Multiples in given exercise.

Reflection in the lesson/self-remarks:

WEEK 4

LESSON: 4-5

STRAND: NUMBERS

SUB-STRAND: Fractions

Comparing fractions

Least Common Divisor (LCM)

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Discuss and arrange fractions in increasing and decreasing order using different strategies
- Compare fractions in different situations
- Recognize use of fractions in real life situations

KEY INQUIRY QUESTION(S): How do we use fractions in daily activities?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Work out the Least Common Multiples (LCM) of numbers by factor method in different situation
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Discuss and arrange fractions in increasing and decreasing order using different strategies Compare fractions in different situations Work out practice exercise 1
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to find Least Common Multiples in given exercise.

Reflection in the lesson/self-

remarks:

WEEK 5

LESSON: 1

STRAND: NUMBERS

SUB-STRAND: Fractions, Subtraction of fractions

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Explain how to subtract fractions in practice cards
- Subtract fractions in different situations
- Appreciate the use of fractions in real life situations

KEY INQUIRY QUESTION(S): What is the difference of $\frac{1}{4}$ - $\frac{3}{16}$?

LEARNING RESOURCES: Place value apparatus

Number charts
Number cards
Multiplication tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Explain how to subtract fractions in practice cards Subtract fractions in different situations.
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Discuss and arrange fractions in increasing and decreasing order using different strategies Compare fractions in different situations Work out practice exercise 1
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to find Least Common Multiples in given exercise.

Reflection in the lesson/self-

remarks:
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WEEK 5

LESSON: 2

STRAND: NUMBERS

SUB-STRAND: Fractions, Multiplication of fractions by a whole number.

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Make circular cut outs and use them to multiply fractions by whole numbers
- Multiply fractions by a whole number in real life situations
- Appreciate the use of fractions in real life situations.

KEY INQUIRY QUESTION(S): What is the product of $\frac{3}{8} \times 7$?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Make circular cut outs and use them to multiply fractions by whole numbers
10 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Discuss and arrange fractions in increasing and decreasing order using different strategies Compare fractions in different situations Work out practice exercise 1 Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving multiplications.

Reflection in the lesson/self-

remarks:
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WEEK 5

LESSON: 3

STRAND: NUMBERS

SUB-STRAND: Fractions, Multiplication of fractions by a whole number.

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Make circular cut outs and use them to multiply fractions by whole numbers
- Multiply fractions by a whole number in real life situations
- Appreciate the use of fractions in real life situations.

KEY INQUIRY QUESTION(S): What is the solution to $1/10 \times 4/9$?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u>
25 Minutes	Learners are guided in pairs, in groups or individually to: Make circular cut outs and use them to multiply fractions by whole numbers
10 Minutes	<u>CONCEPT DEVELOPMENT</u> Learners are guided in pairs, in groups or individually to: Discuss and arrange fractions in increasing and decreasing order using different strategies Compare fractions in different situations Work out practice exercise 1 Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving multiplications.

Reflection in the lesson/self-

remarks:
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WEEK 5

LESSON: 4-5

STRAND: NUMBERS

SUB-STRAND: Fractions, Reciprocals

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Use flip cards to match fractions and discuss reciprocals
- Find the reciprocals of fractions in different situations
- Enjoy finding the reciprocal of fractions

KEY INQUIRY QUESTION(S): What is the reciprocal of $\frac{2}{3}$?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Use flip cards to match fractions and discuss reciprocals
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Find the reciprocals of fractions in different situations Work out practice exercise 7
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving multiplications.

Reflection in the lesson/self-

remarks:
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WEEK 6

LESSON: 1

STRAND: NUMBERS

SUB-STRAND: Division of a fraction by a whole number

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Draw a rectangular grid and explain how to use it to divide fractions by whole numbers
- Divide fractions by a whole number in real life situations
- Appreciate the use of fractions in real life situations

KEY INQUIRY QUESTION(S): What is $2/3 \div 5$?

LEARNING RESOURCES: Place value apparatus

Number charts
Number cards
Multiplication tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Learners are guided in pairs, in groups or individually to: Draw a rectangular grid and explain how to use it to divide fractions by whole numbers
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Find the reciprocals of fractions in different situations Divide fractions by a whole number in real life situations Work out practice exercise 8
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of LCM. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving reciprocals.

Reflection in the lesson/self-

remarks:

WEEK 6

LESSON: 2-3

STRAND: NUMBERS

SUB-STRAND: Division of a fraction by a mixed fraction

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Explain how to divide a fraction by a mixed fraction using number cards
- Divide fractions by mixed fractions in real life situations
- Apply division fractions in real life situations

KEY INQUIRY QUESTION(S): What is $\frac{7}{8}$ by $6\frac{1}{4}$?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Explain how to divide a fraction by a mixed fraction using number cards
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Explain how to divide a fraction by a mixed fraction using number cards Divide fractions by mixed fractions in real life situations Work out practice exercise 10
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of mixed fractions. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving mixed fractions.

Reflection in the lesson/self-

remarks:
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WEEK 6

LESSON: 4

STRAND: NUMBERS

SUB-STRAND: Division of a whole number by a fraction

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Explain how to divide a whole number by a fraction
- Divide whole numbers by fractions in real life situations
- Appreciate division of fractions

KEY INQUIRY QUESTION(S): Mathematics lessons take $\frac{2}{3}$ hours. How many lessons are there in 12 hours?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Explain how to divide a fraction by a mixed fraction using number cards
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Explain how to divide a whole number by a fraction Divide whole numbers by fractions in real life situations Work out practice exercise 11
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of mixed fractions. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving mixed fractions.

Reflection in the lesson/self-

remarks:

WEEK 6

LESSON: 5

STRAND: NUMBERS

SUB-STRAND: Number sequence involving fractions

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Identify number sequence involving fractions in different situations
- Find the next fractions in different number sequences
- Recognize use of fractions in real life situations

KEY INQUIRY QUESTION(S): What is $1\frac{1}{4}$ converted to improper fractions?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Identify number sequence involving fractions in different situations
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Identify number sequence involving fractions in different situations Find the next fractions in different number sequences Work out practice exercise 12
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of mixed fractions. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving mixed fractions.

Reflection in the lesson/self-

remarks:

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WEEK 8

LESSON: 5

STRAND: NUMBERS

SUB-STRAND: Number sequence involving fractions

SPECIFIC OUTCOME: By the end of the lesson, the learner should be able to:

- Identify number sequence involving fractions in different situations
- Find the next fractions in different number sequences
- Recognize use of fractions in real life situations

KEY INQUIRY QUESTION(S): What is $1\frac{1}{4}$ converted to improper fractions?

LEARNING RESOURCES: Place value apparatus

Number charts Number
cards Multiplication
tables

References

Mentor Mathematics Learner's Book Grade 7

ORGANIZATION OF LERANING: IN CLASSROOM AND GROUP WORK

TIME	CONTENT
5 Minutes	<u>INTRODUCTION</u> Learners are guided in pairs, in groups or individually to: Identify number sequence involving fractions in different situations
25 Minutes	<u>CONCEPT DEVELOPMENT</u> Identify number sequence involving fractions in different situations Find the next fractions in different number sequences Work out practice exercise 12
10 Minutes	Core competence: Critical Thinking, Problem Solving, communication and <u>Collaboration</u>. Conclusion Teacher to observe learners understanding on operations of mixed fractions. Extended Activities Learners to be given assignment to do at home. Written tests graded observation of group work activities ,Self and peer assessment

Summary: In groups Learners to do operations involving mixed fractions.

Reflection in the lesson/self-

remarks: