**SCHEME OF WORK FOR P.4 MATHEMATICS TERM I**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **PD** | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
| 1 | 1 | **S**  **E**  **T**  **C**  **O**  **N**  **C**  **E**  **P**  **T** | Revision of sets | - Revision of sets; Definition of: -  (a) Set  (b) Elements  - Naming sets  - Counting number  members in a set  listing elements of a set | * Group objects of a set. * Draws objects. * Identifies sets. * Listing of members in a set | * Defines a set. * Names of types of sets. | Guided discussion  Demonstration  Illustration  Explanation | * Critical thinking * Effective communication. * Creative thinking. | Real objects coins, tins, pens, books, charts etc. | -Grouping  -Drawing  -Counting  -Oral discussion | A new MK primary MTC book 4 pg 1. |
|  | Types of sets | **Types of sets**   * Equal sets and   equivalent sets.   * Empty sets. * Equivalent and   non equivalent   * Even and odd   sets | * States examples of different types of sets. * Identifies types of sets. | * Defines the types of sets. * Names the different types of sets. * Give oral examples of empty sets | Demonstration  Explanation | * Creative thinking. * Effective communication * Critical thinking | * Real objects * A chart | -Matching  - Drawing  -Naming sets  -Listing members. | New MK primary MTC book 4 pg 1-5 |
| 2 | Intersection of sets | * Symbol for intersection. * Drawing venn diagrams and shading. * Listing members in the intersection. * Number of elements in the intersection set. | * Writes the symbol for intersection. * Draws venn diagrams. * Shades the intersection. * Lists members. | * Defines intersection sets. * Describes the shaded part. | Illustration  Demonstration  Guided discussion. | Creative thinking  Logical thinking | Real objects.  A chart showing intersection part. | -Drawing and shading.  - Listing members in the intersection. | MK primary MTC book 4 pg9 - 11 |
| 2 | 1 | Union and intersection of sets | * Symbol for union. * Drawing, shading and listing of members in the union set. * Number of elements in the union set. | * Writes the symbols for unionsets . * Draws venn diagrams. * Shades the union set. * Lists members in theunion set. | * Defines a union set. * Describes the shaded regions. | -Think pair share.  -Guided discussion.  -Demonstration | * Decision making. * Effective communication * creativity | * Real objects * A chart | * Drawing and shading. * Listing members in the union | MK Pri MTC bk. 4 pg. 13 - 15 |
| 2 | 1 | **S**  **E**  **T**  **S**  **C**  **O**  **N**  **C**  **E**  **P**  **T** | Difference of sets | Inpterprete symbols and find   1. A - B   (ii) B - A  (iii) n(A-B)  (iv) n(B-A) | * Interprets the concept of the difference of sets. * Shades the regions. * Draws the regions. | * Counts the numbers of members in; A – B   B - A   * Describes the shaded parts. | * Guided discussion * Demonstration * Discovery * Illustration | * Effective communication. * Critical thinking. * Creativity | * Real objects. * A chart | * Drawing * Shading * Listing * Counting | New MK primary MTC book 4 page 13-15 |
|  |  | Sub sets | * Number of members in a set. * Listing members in a set. * Listing subsets in a set. | * Lists members in a set. * Writes the symbol of subject. * Lists the subsets in a set. | * Defines a subset. * Counts the number of subsets. | * Guided discussion. * Demonstration. * Discovery. | * Creativity. * Effective communication. * Critical thinking. | * Real objects * A chart | * Listing * Drawing * Counting | New MK Primary MTC  bk 4 pg. 21 |
|  |  | NUMBERATION SYSTEM AND PLACE VALUE | Place values | Reading and counting numbers  Place values.   1. In words. 2. In figures.   Example  4 5 6 3  Thousands  Hundreds  Tens  Ones | * Identifies the place values. * Writes the place values. | * Read the place values in words and in figures. * Counts in tens from 10-200 * Names place values from ones to tens thousands | * Guided discussion. * Group illustration. | * Creative thinking. * Effective communication. * Decision making. | * Abacus * Place value chart. | * Identifying place values. * Writing place values. | New MK Primary MTC book 4 pg 19 – 20. |
|  |  | Place values of digits in numbers. | Values of digits in numbers.  Example 1  What is the value of each in the number  7 4 6 3 2  Tth Th H TO  (2x1)=2  (3x10)=30  (6x100)=600  (7x10,000)=70,000  (4x1000)=4000 | * Identifies the place values of digits. * Writes the place values on each digit. * Multiplies digits by their place values. * Writes the values. | * Reading values in words. | * Guided discovery * Demonstration. * Illustration. | * Creative thinking. * Effective communication. * Discussion making. | * Place value chart. * Abacus. | * Identifying place values. * Multiplying of digits by P.V. * Writing values. | New MK Primary MTC Bk 4 pag 21. |
|  |  | N  U  M  B  E  R  A  T  I  O  N  S  Y  S  T  E  M  A  N  D  P  L  A  C  E  V  A  L  U  E | Expanding of numbers | Expanding of numbers   * Using place values * Using values. | * Identifies place value. * Writes the values. * Writes in expanded form. | * Reads the place values. * Reads the values. | * Illustration. * Discovery * Group work | * Effective communication. * Logical thinking * Decision making | * A place value chart. | -Identifying values.  -Writing values.  -Expanding numbers. | New MK primary MTC bk 4 pg 21. |
| 3 | 1 | Expanded numbers | What number has been expanded (7 x 1000) +(4 x 100 + (3x10) + (8 x 1) | * Multiplies the numbers correctly. * Adds the numbers. * Identifies the expanded number. | * Reads the figures. * Reads the expanded number. | * Guided discovery. * Group work. * Illustration. | * Effective communication. * Logical reasoning. | * Place value chart. | -Multiplying  -Adding  -Identifying | New MK primary MTC book 4 pg 24 |
|  | 2 | Writing words in figures and vice versa | * Writing figures in words. * Writing words in figures. | * Writes figures in words. * Writes words in figures. | * Reads figures correctly. * Reads words correctly. | * Explanation * Guided discovery * Discussion. | * Effective communication. * Creative thinking. * Logical reasoning. | * Place value chart. | -Writing  -Reading  -Arranging digits. | New MK primary MTC bk 4 pgs. 22-23 |
|  |  | Rounding off of whole numbers | * Rounding off to the nearest tens. * Rounding off to the nearest hundreds. * Rounding off to the nearest thousands. | * Mentions the meaning of approximate. * Rounds off numbers to the nearest tens / hundreds. | * Mentions the meaning of approximate. * Reads the number given. | * Discovery * Discussion * Illustration | * Logical thinking. * Critical thinking. * Effective communication. | * Place value chart. | -Rounding off to the nearest tens / hundreds. | New MK primary MTC bk 5 pages 54 - 55 |
|  | 3 | Roman numerals | * Basic roman numerals. * Roman numerals got by repeating x, c * Roman numerals got by adding subtracting. | * Identifies roman numerals. * Adds the Roman numerals. * Subtracts the Roman numerals. | * Recites the roman numerals. * Mentions the Roman numerals obtained. | * Explanation * Discussion * Discovery. | * Creative thinking. * Problem solving. * Logical thinking. | * Chart showing Roman numerals. | -Reciting the Roman numerals. | New MK Primary MTC bk 4 pg 33 |
|  | 4 |  | Roman numerals | * Changing from Hindu Arabic numerals to Roman numerals. * Changing from Roman numerals to Hindu Arabic numerals. * Word problems about Roman and Hindu Arabic numerals. | * Writes the Hindu Arabic numerals in Roman numerals. * Writes the Hindu Arabic numerals correctly. * Writes the Roman numerals in Hindu Arabic. | * Recites the Roman numerals. * Reads the statements given correctly. | * Explanation * Discussion * Discovery. | * Creative thinking. * Problem solving. * Logical thinking. | * Chart showing Roman numerals. | -Writing the Roman numerals.  -Reading the statement given. | New MK Primary MTC bk 4 pg. 34-35. |
|  |  | * Addition and subtraction of roman numerals. | * Adds Roman numerals. * Subtracts roman numerals. | * Reads the given word problem. * Recites the Roman numerals. | * Guided discussion * Illustration * Discovery. | * Problem solving. * Creative thinking. * Logical thinking. | -Adding roman numerals.  Subtracting roman numerals. | New MK Pri MTC bk 4 page 35 Oxford pribk 4 page 67. |
| 4 | 2 | OPERATION ON WHOLENUMBERS | Adding up to ten thousand | Addition   * Without word problems. * With word problems. | * Adds numbers without word problem correctly. * Adds numbers with word problems correctly. | * Reads numbers in words. * Interprets the word problem given. | * Explanation. * Guided discussion. * Guided discovery. | * Problem solving. * Logical thinking. * Creative thinking. * Effective communication | * Flash cards showing numbers for addition. | Adding numbers.  Reading the word problem. | New MK MTC Bk. 4 pages 38 - 41 |
|  |  | Subtracting up to ten thousand | * Subtraction. * Without re-grouping. * With re-grouping. | * Subtracts numbers without regrouping. * Subtracts numbers with regrouping. | * Reads the numbers in words correctly. * Uses the new words to make correct sentences | * Explanation. * Guided discovery. * Guided discussion. | * Flash cards showing numbers for subtraction * Using abacus | Subtracting numbers with or without regrouping. | New MK primary MTC bk pages 42 – 43. |
| 5 | 2 | O  P  E  R  A  T  I  O  N  O  N  N  U  M  B  E  R  S | Subtracting up to ten thousand | * Subtraction with regrouping. | * Subtracts numbers with regrouping. * Arranges numbers according to their correct place values. | * Reads the numbers given in words. * Arranges numbers according to their correct. | * Explanation. * Guided discovery. * Guided discussion | * Problem solving. * Logical thinking. * Creative thinking. | * Flash cards showing numbers for subtraction | Subtracting with regrouping. | New MK primary MTC bk 4 pg 43 - 44 |
| 3 | Multiplication | **Multiplication**   * Multiplication as repeated addition. * By multiples of ten 90, 80. 70 … * Three digit figures by one digit. * Two digit figures by 2 digits. * Multiplication on word problems. | * Multiplies given problem. * Identifies the multiples of ten. | * Reads the word problem. * Recites the multiples of ten. * Uses correct mathematical terms for multiplication e.g 2 multiplied by 3 | * Explanation. Discussion * Discovery. * Rote method | * Creative thinking. * Logical thinking. * Problem solving. | * Counters. * Multiplication table. | Multiplying numbers | New MK primary MTC bk 4 pages 46 - 51 |
| 6 |  | Division | * Division as repeated subtraction. * Without remainders. | * Divides numbers using repeated subtraction. * Divides numbers using long division methods | * Counts the number of times a number has been subtracted | * Counters | Counting numbers that have been divided. | New MK primary mathsBk 4 pages 52 - 55 |
|  | * Division by one digit number * Division with remainders. * Division by 10s * Word problems. | * Divides numbers using long division methods. | * Recites the multiplication table. * Reads the word problems. | * Discussion. * Guided discovery. * Demonstration. | -Dividing numbers using long division.  -Multiplying.  Subtracting | New MK Primary MTC Bk 4 pages 53 – 55. |
|  |  |  | Average | * Average without word problem. * With word problem. | * Solves the number given. * Adds numbers. * Divides the number correctly. | * Reads the number or digits given. * Reads the statement given. | * Explanation. * Guided discussion. * Discovery. | * Problem solving. * Critical thinking. * Discussion making. | * Counters in bundles. | Finding the average. | New MK Pr. MTC bk5 pg. 76 - 77 |
|  |  | P  A  T  T  E  R  N  S  A  N  D  S  E  Q  U  E  N  C  E  S | Types of numbers | Types of numbers   * Counting numbers. * Whole numbers. * Even numbers * Odd numbers. | * Identifies the types of numbers. * Finds the missing numbers. | * Recites the numbers. * Counts numbers correctly. | * Explanation. * Guided discussion. * Discovery. | * Problem solving. * Critical thinking. * Discussion making. | * Chart showing examples of the types of numbers. | Giving types of numbers. | New MK primary MTC bk 4 pg. 61. |
|  |  | Number sequences | Number sequences   * By adding numbers like 2, 4, 6, … * By subtracting numbers like 6, 4, 2…… | * Identifies the next numbers by adding. * Identifies the next number by subtracting. | * Counts numbers. * Mentions the next number in the sequence. | * Chart showing number sequences. | Finding the next number in the sequences. | New MK Pr. MTC bk4 pages 61 – 62 |
| 7 | 1 | Number sequences   * By subtracting numbers like 6, 4, 2. * Find missing numbers in a sequence | * Identifies the next number in the sequence by subtracting. | * Counts numbers. * Mentions the next number in the sequences | * Explanation * Discussion * -Guided discovery | * Problem solving. * Logical thinking. * Creative thinking | * Chart showing number sequences | Finding the next number in the sequences | New MK. Pr. MTC bk 4 pg. 62-63 |
| 4 | Multiples | **Multiples**   * Listing multiples of given numbers. * Common multiples. * Lowest common multiples. * Counting in tens, hundreds and thousands. * Multiplying by 10, 100 and 1000. * Multiplying by multiples of 10. * Factors of numbers * GCF if numbers * Completing tables | * Finds the multiples of various numbers. * Lists the common multiples. * Multiples various numbers like 10, 100, 1000 | * Defines multiples. * Mentions the multiples of various numbers. * Counts in tens, hundreds and thousands. | Finding the multiples. | New MK Pr. MTC bk 4 pg 64 - 71 |
| 7 | 4 | Number facts and sequences | Magic square. | * Magic square | * Completes the magic square | * Find the value of the missing numbers | * Chart showing magic square. | Finding the missing numbers in the magic square. | Old MK Pr. MTC bk 4 pg. 72-73 Understanding MTC bk 4 pg 88. |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM I**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| SETS | SET CONCEPT | * Types of sets. Empty * Equal * Equivalent * Forming sets * Listing members in sets * Finding number of members * Finding common members. * Union of sets * Shading and describing shaded regions. * Representing information on the venn diagram * Interpreting information on the venn diagram | 1 ½  (1 – 2) | * The learner is able to demonstrate the knowledge of sets to the problems in real life situations. |
| NUMERACY | WHOLE NUMBERS | * Place values of numbers up to 99. 999 * Values of numbers * Sum and difference of values of digits. * Expanding whole numbers using place values and values * Finding the expanded number * Writing in words * Writing in figures * Round off to the nearest tens, hundreds and thousands * Roman numerals up to 100 * Application of Roman numerals. * Hindu Arabic numerals | 2 wks  (3- 4) | * The learner is able to appreciate the need to count in everyday life . |
|  | OPERATION ON WHOLE NUMBERS | * Addition of whole numbers up to 99999 with and without neigbouring * Word problem about addition * Subtraction of whole numbers up to 99999 with and without regrouping. * Word problem on subtraction * Multiplication as repeated addition. * Multiplication of whole numbers up to 3 digital distributed by 1and 2 | 3 weeks  (5 – 7) | * The learner is able to use the four basic operations to solve problems. |
|  |  | * World problem on multiplication. * Division as repeated subtractions. * Division of whole numbers by 1 digit numbers.   without a remainder  With a remainder   * Division on word problems * Division of whole numbers by 10 * Average * Word problem involving division; |  |  |
|  | PATTERNS AND SEQUENCE | * Types of numbers (even and odd) * Finding sum, product and difference of numbers /even and odd. * Sequence of numbers. * Increasing progression * (addition and multiplication) * Decreasing progression * (Subtraction) | 2 weeks  (8 – 9) | * The learner is able to able to relate and apply simple computation skills involving patterns and sequences in real life situation |
|  |  | * Multiples of numbers * LCM * Multiples of 10, 100, and 1000 * Factors of numbers. * Finding GCF of numbers. * Completing tables (wheels) * Magic squares |  |  |

**LESSON NOTES FOR MATHEMATICS P.4 TERM I**

**LESSON 1**

**TOPIC I: SET CONCEPTS**

**SUB TOPIC: REVISION OF SETS**

**CONTENT: Definition**

A set is a collection of well defined objects.

An element is an object or a thing which belongs to a set.

Naming sets

* A set of tomatoes
* A set of bags
* A set of oranges

Listing members in a set

Eg.

K

1 2

3 0

List the members of set K

Set K = {0,1,2,3}

Counting members in a set

**Examples**

B

pqr Set B has 5 members therefore n(B) = 5 members

ts **∴n(B) = 5 members**

X = {r, s, t} set X has 3 members

Therefore n(x) = 3 members.

.

**ACTIVITY:** Exercise on page 1 Nos. 1 – 8 (MK MTC bk 4)

Remarks.

**LESSON 2: CONTENT:** Equivalent and non-equivalent sets.

Equivalent sets are sets with the same number of members but they are not the same

Symbol

**Example.**

M = (1, 2, 3, 4) N= (a, e,i, o)

Set M is equivalent to set N

Or M N

**Note:** Equivalent sets are also called matching sets.

**Non – Equivalent sets**

These are sets which do not have the same number of members.

**Symbol**

**Example**

P = {a, b, c} Q = {p, q, u, s}

Set P and Q are non – equivalent, non matching sets.

**Activity: Exercise 1 (MK New edition) page 6.**

**Remarks.**

**LESSON 3:**

**TOPIC: SET CONCEPTS**

**SUB-TOPIC: TYPES OF SETS**

**CONTENT: EQUAL SETS AND EQUIVALENT SETS**

**Equal sets:**

Equal sets are sets which have the same number of elements which are exactly the same.

**Examples:**

D E

Symbol =

Set D and E are equal sets

**Equivalent sets.**

Equivalent sets are sets with the same number of members but they are not the same.

**Examples:**

Set A = (a, b, c, d) B =(1, 2, 3, 4)

Set A and B are equivalent sets.

Symbol

**Non equivalent sets**

Set K = {0, 2,4,6,8}

Set M = {1, 3,5 ,6}

Set K = set M

**ACTIVITY**: Exercise 1G page 8 (MK New Edition)

**LESSON 4:**

**CONTENT: EMPTY SETS**

Empty sets are sets which do not have members or a set whose members cannot be found.

NB: Empty sets are also called “Null sets”

Symbol or { }

**Examples**

1. R S

1, 5, 7

Set R is an empty set.

(b) A set of goats with 5 legs each is an empty set.

**ACTIVITY:** Exercise 1b and 1 C page 2 (Mk New edition)

**Remarks.**

**LESSON 5:**

**CONTENT: Even and Odd sets.**

Even sets are sets whose members can all be paired

**Example:**

**P** Set P has 4 members.

Members of set P have all been paired, therefore it is an even sets.

**Note:**An empty set is an even set.

**Odd sets**

Odd sets are sets whose members can not all be paired. i.e they give a remainder when their members are paired.

**Example:**

**U** Not all members of set U have been paired. Therefore it is an odd set.

d e

a b c g

f

**ACTIVITY:** Exercise 1(d) and 1 (e) page 3 and 4 (New Edition of MK)

**Remarks:**

**LESSON 6:**

**SUBTOPIC :INTERSECTION OF SETS.**

**CONTENT: Symbol for intersection “**∩”

Intersection sets

**Examples:**

**P** = (a, b, c, d, e)**q** = (a, e, i, o ,u)

Find (i) P∩Q. = (a, e)

n (P ∩ Q) = 2 elements

**Note:** Sets without common members are non – intersecting sets.

Identify the common elements by circling or ticking.

**Examples**

W = {1, 2, 3, 4} N = {a, b, c}

Set W and N are non – intersecting sets.

**Note:** Use only curry brackets when listing elements of set concepts.

**Drawing Venndiagrams and shading the intersection.**

**Example:-**

**- Shading the intersection set.**

**A B**

A ∩ B is shaded.

**ACTIVITY**:

Exercise 1H page 10 (MK New edition) or Exercise 7 page 10 (Oxford Primary MTC Bk 4)

**Remarks**

**LESSON 7: Listing members in the intersection**

**Example:**

**Set U Set V**

**1.**

**UV**

0 21 7

4 3 5 9 ∴ U ∩ V = {1, 3, 5}

2. Set D = {p, q, r, s, t }

Set E = {f, g, r, p }

∴ D ∩ E = {p, r}

**Number of elements in the intersection**

**Examples:**

Set S = { g, o, a, t } T = {r, o, t}

S ∩ T = {o, t} Therefore; number of elements in the intersection set are 2.

n(S∩T) = 2 elements

Set

X Y

X Y

b, u

l, f

o, a

X ∩Y = {l, f}

∴n(X ∩Y) = 2 elements

**LESSON 8:**

**CONTENT: UNION OF SETS AND INTERSECTION**

A Union set is a collection of all the members in the given sets.

Symbol; U

Listing of members in union sets.

**Examples**

If P = {a, e, i, o, u} Q = {a, b, c, d, e}

What is P U Q?

P ∪ Q = {a, e, i, o, u, b, c, d}

**N.B**: All common members are written once.

**Listing members of the union set**

**Example:**

G H

f i s h f e e t h

Drawing venn diagrams and shading.

**Examples:**

G H

Shade G ∪ H

G H

G H

G H

f e

i s

h

G ∪ H = {i, s, f, h, e, }

∴ Number of elements in the union set are 5

**n(G∪H) = 5 elements.**

**LESSON 9: DIFFERENCE OF SETS**

These are members of a set that exist in only on set .e. set A – B means members of set A only.

**Example:**

Set A = {1, 2, 3, 4, 5}

B = { 0, 2, 4, 6, 8}

**Note:** Members of a given set only is got without common members.

Find members of

1. Set A only = {1, 3, 5}
2. Set B only = {0, 6, 8}

Members of set A only is represented by A – B

Members of set B only is shown as B – A

**Showing the difference of sets on venn diagrams.**

A ∩ B A ∪ B

**A B**

A only (A – B) B only ( B – A)

A B A B

Set A Set B

**ACTIVITY:**

Draw and shade these regions

1. A but not B
2. A ∪ B
3. Set B
4. B – A
5. A - B

**LESSON 10:**

**CONTENT: REPRESENTING ELEMENTS ON A VENN DIAGRAM**

**Examples:**

X ={1, 6, 3, 4, 9}

Y = {4, 6, 7,10, 11}

Represent the two sets on a venn diagram.

**X** **Y**

1 3 710

96 4 11

**List members of**

X only = {1, 3, 9}

Y – X ={7,10,11}

X∩ Y = {4, 6}

**ACTIVITY**

Set M = {a, b,c,d,e}

N={a, e,i, o, u}

1. Represent the two sets on the venn diagram below

N M

(b) Use your venn diagram to answer the following:-

1. M ∩ N (v) P - Q
2. M ∪ N (vi) n(Q – P)
3. n(P)only (vii) n(Q)only
4. n(Q)

**REMARKS**

**LESSON 11:**

**SUB TOPIC SUBSETS**

**CONTENT:**

**Definition**

At this level only use listing method

A subset is a set of members got from a given set.

An empty set is a subsetof any set

A set is a subset of itself (its called a super set).

A mother set s also a subset of itself.

Symbol

⊂

Symbol for not subset

⊄

Listing subsets

Set P = {1, 2, 3}

The subsets are:;

{}, {1, 2, 3}, {1, 3}, {2, 3}, {1}, {2},{3 }, {1, 2 },

**LESSON 12**

**THEME : NUMERACY**

**TOPIC: Whole Numbers**

1. In words

**Example**

MK Primary Mathematics book 4 (Old Edition) Exercise 2b page 20.

(i) 4 5 6 3

Ones

Hundreds

Tens

Thousands

**In figures**

(ii) 3 6 5 8 2

1 ones

10 tens

100 hundreds

1000 thousands

10000 ten thousands

(iii) Representing numbers on abacus.

**Example**

**6 3 7 0**

Encourage children to use mainly beads.

**TH H T O**

**6 3 7 0**

**LESSON 13**

**SUBTOPIC: VALUES OF DIGITS IN NUMBERS**

**Example: 1**

What is the value of each in the number7 4 6 3 2

TthTh H T O

**7 4 6 3 2**

2 x 1 = 2

3 x10= 30

6 x100= 600

4 x1000 = 4000

7 x10000 = 70000

**Example 2**

What is the value of 5 in the number

3 1 5 9

**TH H T O**

3 1 5 9

5 x 10 = 50

**LESSON 14**

**SUB TOPIC**: **Expanding numbers using place values**

Example:

1. Expand 3 7 4 6 using its place values

Apply all the operations addition and subtraction of values

|  |  |  |  |
| --- | --- | --- | --- |
| TH | H | T | O |
| 3 | 7 | 4 | 6 |

1

10

100

1000

( 3 X 1000) + ( 7 X 100) + ( 4 X 10) + ( 6 X 1)

Example 2

Expand 623 using place values

|  |  |  |
| --- | --- | --- |
| H | T | O |
| 6 | 2 | 3 |

1

10

100

6 Hundreds + 2 Tens + 3 Ones

**ACTIVITY**

Expand these using values

1. 3408
2. 95664
3. 8088

**Ref**

MK Primary Mathematics Book 4 page 24

Exercise 2f

**LESSON 15**

**EXPANDING NUMBERS USING VALUES**

Example

Expand 95614 using its values

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| T/TH | TH | H | T | O |
| 9 | 5 | 6 | 1 | 4 |

4x 1 = 4

1x 10 = 10

6x 100 = 600

5x 1000 = 5000

9x 10000 = 90000

∴ 95614 = 90000 +5000 + 600 + 10 + 4

**ACTIVITY**

MK Primary mathematics Book 4 Page 24

**LESSON 16:**

**SUB TOPIC:EXPANDED NUMBERS**

**Examples:**

(a) What number has been expanded to give 7000

(7 x 1000) + ( 4 x 100) + ( 3 x 10 ) + ( 8 x 1) 400

7000 + 400 + 30 + 8 + 30

= 7438 8

7438

(b) What number has been expanded to give

(2 x 10000) + ( 3 x 1000) + ( 2 x 10 ) + ( 1 x 1) 20000

20000 + 3000 + 20 + 1 3000

= 23021 20

+ 1

23021

**ACTIVITY**

What number has been expanded.

(i) 500 + 70 + 2

(ii) 3000 + 400 + 90 + 2

(iii) (1 x 10,000) + (6 x 100) + (8 x 10) + (3 x 1)

(iv) (7 x 1000) + (9x 100) + (4 x 1)

(v) 5000 + 70 + 8

**REMARKS.**

**LESSON 17**

**SUBTOPIC : WRITING FIGURES IN WORDS**

**CONTENT : Example:**

Emphasize the spelling of ninety, nineteen , forty, fourteen, thousand.

1. Write 4 3 2 6 in words

|  |  |  |  |
| --- | --- | --- | --- |
| TH | H | T | O |
| 4 | 3 | 2 | 6 |

Four thousandthree hundredtwenty six

1. Write 65702 in words

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TTH | TH | H | T | O |
| 6 | 5 | 7 | 0 | 2 |

Sixty five thousand seven hundred two.

**ACTIVITY**

New MK bk 4 pg 18

**LESSON 18**

**SUB TOPIC : WRITING WORDS IN FIGURES**

**CONTENT**

**Examples**

1. Write twelve thousand four hundred seventy two

|  |  |  |  |
| --- | --- | --- | --- |
| TH | H | T | O |
| 12 | 4 | 7 | 2 |

12000

400

70

+ 2

12472

2x1 = 2

7 x10 = 70

4 x100 = 400

12 x100 = 12000

**ACTIVITY**

New MK bk 4 pg 18

Exercise 2e

REMARKS.

**LESSON 19**

**SUB TOPIC :ROUNDING OFF TO THE NEAREST TENS**

**Examples**

1. Round off 92 to the nearest tens

T O

**ACTIVITY**

New MK Primary Mathematics Bk 4 pg 23-29

REMARKS

9 2

+ 0 0

9 0

1. 4 3 6

H T O

4 3 6

+ 1

4 4 0

**LESSON :20**

**SUB TOPIC : ROUNDING OFF TO NEAREST HUNDREDS AND THOUSANDS**

**CONTENT**

**Example:**

(a) Round off 356 to the nearest hundreds

**ACTIVITY**

New MK Primary Mathematics Bk 4 pg 23-29

REMARKS

H T O

3 5 6

+ 1 0 0

1. 0 0
2. Round off 1245 to the nearest hundreds

TH HT O

1 2 4 5

+ 0 0 0

1 2 0 0

**LESSON : 21**

**TOPIC : WHOLE NUMBERS**

**SUB TOPIC :ROMAN NUMERALS**

**CONTENT: Basic Roman Numerals**

**Example:**

|  |  |
| --- | --- |
| **Hindu Arabic** | **Roman Numerals** |
| 10  20  30  40  50  60  70  80  90  100 | X  XX  XXX  XL  L  LX  LXX  LXXX  XC  C |

|  |  |
| --- | --- |
| **Hindu Arabic** | **Roman Numerals** |
| 1  2  3  4  5  6  7  8  9 | I  II  III  IV  V  VI  VII  VIII  IX |

Roman numerals got by repeating 1 or x.

2 = I + I = II = 20 = 10 + 10 = XX

3 = I + I + I = III = 30 = 10 + 10 + 10 = XXX

**Roman numerals got by adding to 5**

6 = 5 + I 7 = 5 + 2 8 = 5 + 3

6 = VI 7 = VII 8 = VIII

The Roman numerals got by subtracting from 5 or from 50.

4 = 1 subtracted from 5

4 = IV

40 = 10 subtracted from 50

40 = XL

The roman numerals got by subtracting from 10 and 100 e.g. 9 = 1 subtracted from 10.

9 = IX

**90 = 10 subtracted from 100 = XC**

**LESSON :22**

Changing from Hindu – Arabic numerals to Roman numerals

Emphasize expansion of Roman numerals

**Examples:**

(a) 19 = 10 + 9 (b) 44 = 40 + 4

X + IX XL + IV

= XIX = XLIV

**Activity:** Mk Primary Mathematics (New Edition book 5 page 30-32

Changing roman numerals into Hindu Arabic numerals.

**Example 1 Example 2**

XIV = X + IV Change XXXIX to Hindu Arabic

= 10 + 4 XXXIX = XXX + IX

30 + 9

XIV = 14 XXXIX = 39

**ACTIVITY:** MK primary mathematics book 4 (New Edition) page 30-32

**LESSON :23**

**SUB TOPIC : WORD PROBLEMS INVOLVING ROMAN AND HINDU ARABI NUMERALS**

**Example:**

(a) Henrys’ age is 8. Write his age in Roman numerals.

8 = VIII

(b) Mukiibi’s vehicle has been driven for 24 months. Write the months in Roman numerals.

24 months

24 = 20 + 4

24 = XX + IV

24 = XXIV

c) There are XLIV pupils in a class. Express the number of pupils in Hindu Arabic numerals

**ACTIVITY: MK Primary mathematics bk 4 (New Edition) page 30-32**

**LESSON 24**

**SUBTOPIC : ADDITION OF ROMAN NUMERALS**

**Examples**

i) IX + V (ii) 14 = 10 + 4

= 9 + 5 = X + IV

= 14 = XIV

iii) XX + VII (iv) 29 = 20 + 9

= 20 + 7 = XX + IX

= 27 = XXIX

v) Find the sum of IV and XXV

**Subtraction of Roman numerals**

**Examples**

1. XXXVI - XXII (b) 14 = 10 + 4

= (30 + 6) -(20 + 2) = X + IV

36 – 22 = XIV

14

(c) IX - V (d) 45 = 40 + 5

= 9 - 5 XL + V

= 4 = XLIV

c) Subtract XII from XXIX

**ACTIVITY :**

**Example 1**

1. XXXIV + XLV (d) XV + XXIX
2. XCII + XL (e) XXV – V
3. XXIV – XVI (f) XLIX – XII

Example 2

There are XXIV boys and XIX girls in the class.

a) Fin the total number of pupils in the class

b) How many more boys than girls are in the class?

**LESSON 25**

**THEME: NUMERACY**

**TOPC : OPERATION ON WHOLE NUMBERS**

**SUBTOPIC : Adding up to ten thousand**

**Examples**

1. Add: 7464 + 4425

Arrange these numbers in their place values

TH H T O

7 4 6 4

+ 4 4 2 5

11 8 8 9

1. Add: 4622 + 5043 + 6231

TH H T O

4 6 2 2

5 0 4 3

+ 6 2 3 1

15 8 9 6

**ACTIVITY :** MK Primary 4 book page 33exercise 3:1 (New edition)

Understanding mathematics bk 4 pg 30

**LESSON :26**

**More addition of numbers**

**Example:**

(i) **Add:**

* Arrange numbers in their place values
* Add by regrouping all numbers (answers) that exceed 9

TH H T O

1 3 7 8

+ 5 8 9

1 9 6 7

(ii) TTH TH H T O

1 4 3 3 1

+ 2 6 5 1

1 6 9 8 2

**ACTIVITY: MK Primary mathematics (New Edition) book 4 page 33-37. Exercise 3:3**

**Understanding mathematics bk 4 pg 33**

**LESSON : 27**

**Addition with word problems**

**Example:**

1. Alice carried 349 books, her brother carried 578 books. How many books were carried altogether?

Alice carried = 349 books

Her brother = +578 books

Both carried = 927 books

2. Maria bought sugar for shs. 15,000. Soap at shs. 800 and a bunch of Matooke at shs. 3500. How much money did she spend?

Sugar shs. 15,000

Soap shs. 800

Matooke + Shs 3500

Total Expenditure sh. 19,300

1. Paul is 15 years old. Sam is 5 years older than Paul. How old is Sam?

**ACTIVITY: Exercise 3c (MK Primary mathematics book 4 (New Edition) pg. 34-36**

**Understanding MTC bk 4 pg 31**

**LESSON 28**

**SUB TOPIC: SUBTRACTION**

**Examples 1:**

1. 246 - 192

* Arrange numbers vertically by their place values.
* Subtract impossible numbers by borrowing.

H T O

2 4 6

- 1 9 2

0 5 4

**Example 2.**

2. 530 - 254

* Arrange numbers vertically in their place values.
* Subtract by regrouping using tens

H T O

5 3 0

- 2 5 4

2 7 6

**ACTIVITY: Exercise 3d (MK primary book four page 38-41 (New Edition)**

**Understanding MTC bk 4 pg 35**

**LESSON: 29**

**SUB TOPIC: SUBTRACTION OF LARGER NUMBERS**

**Example:**

(i) 10246 -3118

TTH TH H T O

1 0 2 4 6

- 3 1 1 8

**ACTIVITY:**

Exercise 3e (MK Primary book four page 44 (New Edition)

Understating MTC bk 5 pg 38

REMARKS:

**7 1 2 8**

(ii) 24035 - 3727

TTH TH H T O

2 4 0 3 5

- 3 7 2 7

2 **0 3 0 8**

**LESSON: 30**

**SUB TOPIC: WORD PROBLEM INVOLVING SUBTRACTION**

**Example:**

What is the difference between 243 and 37?

2 4 3

- 3 7

2 0 6

(ii) Katabula had shs. 2500. He bought a book for 350. What was his change?

Katabula had - 2500

He paid - 350

His change - 2150

1. By how much is 236 greater than 182?
2. Nassim is 13 years old. Alex is 3 years younger than her.
3. How old is Alex?

**ACTIVITY:** Exercise 3f (MK primary mathematics book four page 45 (Old edition)

REMARKS

**TOPIC: OPERATION ON WHOLE NUMBERS**

**SUBTOPIC: MULTIPLYING BY 110 AND 100**

**CONTENT: MULTIPLYING BY ZERO, TEN AND HUNDRED**

Examples

Workout

a) 12 x 10 = (b) 45 x 0 (3) 0x3x2x0

d) 47 x 100 (e) 984 x 100 (f) 86 x 100

**Activity**

New MK pupils’ bk 4 pg 42-44

**LESSON: 31**

**TOPIC: OPERATION ON WHOLE NUMBERS**

**SUB TOPIC MULTIPLICATION OF 3 DIGIT NUMBERS BY NUMBER 1-10**

Other words that call for multiplication are: product, times.

**CONTENT:** Multiplying by one digit

**Example 1:**

1. 4 3 4 6 (ii) 1 0 (iii) 4 3

x 3 x 2 x 4

13 0 3 8 2 0 1 7 2

(iv) 1 4

**ACTIVITY:** New Edition MK Primary Mathematics bk 4 page 46-47

x 8

1 1 2

**LESSON: 32**

**Word problems involving multiplication by one digit.**

**Example:**

Apply lattice method on two digit numerals.

1. Juma is paid shs. 6960 a day. How much will he get if he works for 7 days.

**Solution:**

1 day he gets shs. 6960

7 days he gets 6 9 6 0

**∴He gets 48, 720 in 7 days.**

x 7

Shs. 4 8 7 2 0

**2.** Juma is 10 years old. Steven is twice as old as Juma. How old is Steven?

**ACTIVITY:** Exercise 3g No. 1 – 3 page 46 and 3h 1 – 5 page 47 (MK New Edition)

**LESSON: 33**

**Multiplication as repeated addition**

**CONTENT:**

Example:

(a) 4 x 2 = 2 + 2 + 2 + 2

= 8

(b) 3 + 3 + 3 + 3 = 4 x 3

= 12

c) Show 3x2 on a number line below

0 1 2 3 4 5 6 7 8 9 10 11

**ACTIVITY:**

Use repeated addition to multiply the following:-

1. 3 x 2

**Complete**

1. 2 + 2 + 2 + 2 = \_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_
2. 4+4 + 4 + 4 + 4 =\_\_\_\_\_\_\_\_\_\_\_\_x \_\_\_\_\_\_\_\_
3. 3 + 3 + 3 + 3 + 3 \_\_\_\_\_\_\_\_\_\_x \_\_\_\_\_\_\_\_
4. 8 + 8 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_x \_\_\_\_\_\_\_\_
5. 9 + 9 + 9 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_
6. 6 x 4
7. 4 x 3
8. 5 x 3
9. 8 x 2

REMARKS

**LESSON 34**

**SUB TOPIC : DIVISION**

**CONTENT : DIVISION AS REPEATED SUBTRACTION**

Example

1. 12 ÷ 3 = 12 – 3 = 9

9 - 3 = 6 count the number of times you subtract 3 division from the

6 - 3 = 3 dividend until you get “o” is the answer

3 - 3 = 0 ∴12 ÷3 = 4 times

**ACTIVITY :**Exercise 3l page 53 (MK New Edition)

**LESSON 35**

**TOPIC : OPERATION ON NUMBERS**

**SUB TOPIC : DIVISION WITHOUT REMAINDER**

**CONTENT:**

Example 1: Divide 4804 by 4.

1201

Example 2:124 ÷ 4

4√1 2 4

3 x 4 = 1 2

4

1 x 4 = 4

31

4√4 8 0 4

1 x 4 = 4

0 8

2 x 4= 0 8

0

0

4

1 x 4 = 4

**ACTIVITY:** Exercise 3m page 53 (Mk New Edition).

Exercise 3:16 understanding MTcbkpg 48

**LESSON: 36**

**SUBTOPIC : WORD PROBLEMS INVOLVING DIVISION WITHOUT REMAINDERS**

**CONTENT : Examples**

1. There are 120 oranges in 2 bags. How many oranges are in each bag?

**Divide**

**Example 2**

Divide 246 text books among 3 classes

√2 4 6

0 x 3 = 0

2 4

8 x 3 = - 2 4

6

2 x 3 = - 6

Each gets 82 books.

Example 1:

060

082

2

√1 2 0

3

0 x 2 = 0

1 2

6 x 2 = - 1 2

0

0 x 2 = 0

Each bag has 60 oranges

**ACTIVITY:** Exercise 3p (New Edition) MK Primary Mathematics book 4 page 55

**LESSON 38**

**SUB TOPIC : DIVISION WITH REMAINDERS**

**CONTENT:** Examples

Example : Divide 38148 by 5.

**ACTIVITY:**

Divide the following:-

1. 1516 by 5 =
2. 2425 by 3 =
3. 1212 by 5 =
4. 135 by 2 =
5. 215 by 4 =
6. 1212 by 7 =

07629

5

√3 8 1 4 8

1 x 3 = 0

3 8

2 x 4 =- 0 8

3 8

7 x 5 =- 3 5

31

6 x 5 =- 3 0

1 4

2 x 5 =- 1 0

4 8

9 x 5 = - 4 5 3

∴ 38148 ÷ 5 = 7629 rem 3

**LESSON :36**

**SUB-TOPIC : DIVISION BY 10**

Example:

(i) 650 ÷ 10 (ii) 420 ÷ 10

=  = 

∴650 ÷ 10 = 65. ∴420 ÷ 10 = 42.

2. Joan distributed 320 text books amongst 20 pupils. How many text book did each get?

**ACTIVITY :**

(v) 640 ÷ 10 =

(vi) 280 ÷ 10 =

(vii) 480 ÷ 10 =

(viii) 560 ÷ 10 =

(i) 200 ÷ 10 =

(ii) 370 ÷ 10 =

(iii) 810 ÷ 10 =

(iv) 340 ÷ 10 =

**LESSON 39**

**SUB-TOPIC : AVERAGE**

Finding average or mean of numbers

Examples

(i) Find the average of 0, 2 and 4

Average = Total = 0 + 2 + 4 6 = 2

Number of items 3 3

(ii) Find the average age of three girls one of 8 years, another of 10 years and the third girl of 9 years.

Total age = 8 years + 9 years = 27 years.

Average = Total age = (8 + 9 + 10 )years

No. of children 3

=  = 9 years

**ACTIVITY:**

A new MK primary mathematics book 5 page 76 – 77

**LESSON 39**

**TOPIC : PATTERNS AND SEQUENCES**

**SUB-TOPIC : TYPES OF NUMBERS**

**CONTENT : Even and odd numbers**

Even numbers if divided by two give us 0 (zero) as a remainder.

Examples: 0, 2, 4, 6, 8

Note: Any number ending with 0, 2, 4, 6, 8 is an even number.

Exactly divisible by 2

Odd numbers are numbers if divided by two leave us with 1 as a remainder.

Example 1, 3, 5, 7, 9

**Note:** All numbers that have their last digit as 1, 3, 7, 9 are odd numbers.

Not exactly divisible by 2

**ACTIVITY**: New MK Primary Mathematics book four page 59.

**LESSON 40**

**SUB TOPIC**: More about Even and odd numbers.

* + - Counting even and odd numbers in a given set of instruction.

**Examples:**

(i) How many even numbers are there between 10 and 20?

Even numbers between 10 and 20 = { 12, 14, 16, 18}

∴ Even numbers between 10 and 20 are 4.

(ii) How many odd numbers are there between 0 - 10

= { 1, 3, 5, 7, 9}

There are 5 odd numbers.

ACTIVITY: Exercise 4c and 4d page 60 New MK Primary Mathematics book 4.

**LESSON 41**

**SUBTOPIC** : **More about even numbers.**

**Finding the sum, difference and product of even numbers.**

**Examples:**

1. What is the sum of the first 4 even numbers.

First 4 even numbers { 0, 2, 4, 6}

Sum = 0 + 2 + 4 + 6

Sum = 12

2. What is the difference between the second and fourth even numbers?

= {0, 2nd , 4, 6th}

Difference = 6 - 2

Difference = 4

3. What is the product of the first and fifth even numbers?

5st

1st

{0, 2, 4, 6, 8}

Product = 0 x 8 = 0

1. List the even numbers between 20 and 40

**ACTIVITY:** Mk Primary Mathematics book 4 page 60 Exercise 4c

**LESSON 42**

**SUBTOPIC**: **More about odd numbers.**

**Finding the sum, difference and product of odd numbers**

**Examples:**

(i) List down all odd numbers less than 10.

{1, 3, 7}

(ii) What is the sum of odd numbers less than 8

{1, 3, 7}

= 1 + 3 + 7

7

(iii) What is the product of the 3rd and 4th odd number?

4th

3rd

Odd numbers ={1, 3, 5, 7, 9, 11, 13, 15}

Product = 5 x 7

= 35

**ACTIVITY:** Exercise 4d. MK primary mathematics book 4 New edition

**LESSON 43**

**SUBTOPIC**: **Counting and whole numbers**

Definition: Counting numbers are numbers we use to count. They begin with one.

Counting numbers are also called Natural numbers

Examples: counting numbers are infinite/endless

{1, 2, 3, 4, 5, 6, 7, 8, 9}

**Whole numbers**

Write the missing numbers

0, 1, 2, 3, 4, 5, \_\_\_, \_\_\_, \_\_\_

These are whole numbers. They begin with Zero to infinity

= 0, 1, 2, 3, 4, 4, 5, 6, 7,8,9

**ACTIVITY:** Exercise 4e New MK Primary Mathematics book four page 62

**LESSON 44**

**TOPIC: PATTERNS AND SEQUENCE**

**SUBTOPIC**: **Number sequence by Adding.**

**CONTENT: Example**

(a) (1, 3, 5, 7, 9, \_\_\_, \_\_\_)

(b) (1, 2, 4, 5, 7, 8, \_\_\_\_)

Add 1 then add 2

Begin with

1 + 1 = 2

2 + 2 = 4

4 + 1 = 5

5 + 2 = 7

7 + 1 = 8

8 + 2 = 10

The missing number is 10

Keep adding 2

1 + 2 = 3

3 + 2 = 5

5 + 2 = 7

7 + 2 = 9

9+ 2 = 11

11 + 2 = 13

The missing numbers are 11 and 13

**NOTE:** Every sequence has its own pattern

ACTIVITY: 4F page 63 Mk Primary Mathematics book four (New Edition).

**LESSON 45**

**SUB TOPIC: NUMBER SEQUENCE**

**CONTENT:** Number sequence by subtracting

**Examples:**

(i) 8, 6, 4, 2 (ii) 20, 18 15, 13,10, 8, 5

-2 -2 -2 -2 -3 -2 -3 -2 -3

**ACTIVITY:**  Exercise 4e New MK Primary Mathematics book four page 62

**LESSON 46**

**SUB TOPIC: MULTIPLES**

A multiple is a product of a given number and another whole greater than zero e.g.

4 x 2 = 8, and 8 is a multiple of 4.

Emphasize mastering the multiplication table through using all operations; addition, subtraction, multiplication and division

(i) List multiples of 4 (ii) List multiples of 5

1 x 4 = 4 1 x 5 = 5

2 x 4 = 8 2 x 5 = 10

3 x 4 = 12 3 x 5 = 15

4 x 4 = 16 4 x 5 = 20

5 x 4 = 20 5 x 5 = 25

6 x 4 = 24 6 x 5 = 30

{4, 8, 12, 20, 24, ……….} {5, 10, 15, 20, 25, 30, …..}

**ACTIVITY:** Exercise 4g page 64 Mk book four New Edition.

**LESSON 47**

**SUB TOPIC: COMMON MULTIPLES AND LCM**

**CONTENT**

Examples

1. Find the first common multiples of 2 and 4

M2 = {2,4,6,8,10,12,14,16,18,…}

M4 = {4, 8, 12, 16, 20, 24..….}

Common multiples = { 4, 8, 12, 16}

2. Find the L.C.M of 4 and 5

M4 = {4, 8, 12, 16, 20, 24, 28}

M5={5, 10, 15, 20, 25, 30, …..}

Common multiples = { 20}’

∴ L.C.M is 20

**ACTIVITY:** Exercise 4L MK New Edition book 4 page 67.

**LESSON 48**

**SUB TOPIC:** Counting in tens, hundreds and thousands.

Examples:

1. Fill in the missing number 10, 20, 30, \_\_\_, \_\_\_\_, \_\_\_\_ 70

**Add 10 to get the next number**

30 +10 = 40

40 + 10 = 50

50 + 10 = 60

10, 20, 30, 40, 50, 60 70

1. Fill in the missing numbers 100, 200, 300, \_\_\_\_, \_\_\_\_\_, \_\_\_\_ 700

**Add 100 to get the next number.**

100 +100= 200

200 + 100 = 300

300 + 100 = 400

400 + 100 = 500

500 + 100 = 600

600 + 100 = 700

100, 200, 300, 400, 500, 600, 700

ACTIVITY: Exercise 4m Pg. 68 New Edition MK primary Mathematics bk four.

**LESSON 49**

**SUBTOPIC:** Multiplying by 10, 100, 1000.

**CONTENT:**In this case, we simply add the number of zero to the number.

Examples:

(i) 6 x 10 = 60

(ii) 7 x 100 = 700

1. 8 x 1000 = 8000
2. 38 x 100 = 3800

**ACTIVITY:** Exercise 4n on page 69 New Edition MK primary Mathematics book four.

**LESSON 50**

**SUBTOPIC:** Multiplying by multiples of 10

**CONTENT:**

Example 1. Example (ii)

(i) What is 7 x 30? What is 50 x 30?

7 x 30 = ? 50 x 30 = 5 x 10 x 3 x 10

30 = 3 x 10 = 5 x 3 x 10 x 10

So 7 x 30 = 7 x 3 x 10 = 15 x 100

= 21 x 10 = 1500

= 210

ACTIVITY: Exercise 4(o) page 70 New MK book 4

Teach children how to form their own magic tables

**LESSON 52**

**SUB-TOPIC : MAGIC SQUARES**

Magic sum = 7 + 4 + 1 = 12 Find a. =\_\_\_\_\_\_

b

c

5

a

7

d

3

1

4

b. = \_\_\_\_

c. = \_\_\_\_\_

d.=\_\_\_\_\_

**SCHEME OF WORK FOR P.4 MATHEATICS TERM II**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **PD** | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
|  | | **F**  **R**  **A**  **C**  **T**  **I**  **O**  **N**  **S** | Revision | Fractions (Lower work)   * Definition. * Shading / Naming fractions. * Writing fractions in words and figures. * Types of fractions. | * Defines fractions. * Shades the given fractions * Gives examples of fractions. | * Defines fractions. * Names the types of fractions. | * Explanation * Demonstration. * Guided discovery | * Effective communication. * Creativity. | * Real objects e.g. oranges, apples papers. | Collecting objects.  Shading  Naming. | MK Bk.3 pg. 94 – 98.  A new MK Bk 4 pg. 80 - 86 |
| Fractions | * Equivalent   fractions.   * How to get   equivalent.   * Finding missing   parts of  fractions.   * Reduce fractions of atleast one factor * Comparing   Fractions.   * Ordering simple   fractions. | * Multiples and dives. * Compares fractions. * Reduces fractions to lowest term. * Identifying simple equivalent fractions using diagrams | * Describes and names equivalent fractions. * Writes equivalent fractions. | * Group discussion. * Question and answer. | * Problem solving. * Effective communication. * Critical thinking. | * Flash cards. * Charts   showing  fractions | Cutting  Shading | MK primary MTC bk 4 pg 82 - 86 |
| Operations on fractions | **Addition of fractions**   * With same denominators. * With different denominators.   **Subtraction of fractions**   * With same denominators. * With different denominators. | * Adds fractions with same and different denominators. * Subtracts fractions with same and different denominators. | * Reads fractions given | * Demonstration. * Illustration. * Group discussion. | * Effective communication. * Critical thinking * Creativity. | * Pupils chart showing fractions. | * Cutting. * Grouping * Reading | New MK Bk 4 Pg. 87-97. |
|  |  | **F**  **R**  **A**  **C**  **T**  **I**  **O**  **N**  **S** |  | **Writing mixed as**  **proper fraction**   * Changing improper fractions to mixed numbers.   **Addition of mixed numbers**   * With same denominators only   **Subtraction of mixed numbers.**   * With same denominators only   **Fractions of a group**   * What is ½ of 6? * Find the remaining fractions. * Multiplication of fractions. | * Changes mixed   numbers to improper fractions.   * Adds and subtracts mixed fractions. * Uses fractions of a group to apply in given numbers. | * Reads   fractions.   * Defines the type of fractions. | * Demonstration   on.   * Guided discovery. * Explanation. | * Creativity. * Logical reasoning. | * Real   objects  like text books. | * Cutting * Grouping * Reading | New  MK Bk. 4 Pg. 87 - 97 |
| 2 | 1 | Decimals | **Decimal fractions**   * Writing decmals   -in words  -in figures upto tenths   * Expressing fractions as decimals upto thenths * Expressing decimals as fractions up to thenths * Place values of decimals upto tenths * Tenths * Addition on decimals | * Write decimals in words and figuresupto tenths. * Express decimals as common fractions up to tenths. * Add decimal using a number line. * Order fractions from big to small and vice versa. * Subtract decimal fractionsupto tenths. | * Uses the word decimals in problems “point” | * Guided discovery. * Think pair share. * Demonstration. * Illustration. | * Effective communication. * Creative thinking. * Problem solving. | * Abacus. * Flash cards. | * Collecting objects like bottle tops. * Cutting. | New MK primary MTC book 4 pages 98 - 111 |
|  |  |  |  | Ordering decimals. | * Interpret word problems. |  |  |  |  |  |  |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y | Identifying 2 – dimensional figures | **Plane shapes**  Examples:   * Rectangles. * Circle * Rhombus * Oval * Square * Kite * Trapezium * Triangle * Paralleogram * Rhombus | 1. Identifies plane shapes. 2. Draws given shapes. 3. Writes the properties of shapes. | * Describes and names shapes of 2 – dimensional figures. * States the properties of the shapes. | * Demonstration. * Explanation * Discussion. | * Effective communication. * Logical reasoning. * Creativity | * Objects with such shapes e.g. balls, baskets, cups, eggs etc. | * Identifying * Drawing * shaping | New MK Bk. 4 pg. 125.  MK pupils Bk. 3 pg. 126 |
|  |  | Drawing ling segments  End point | Drawing and measuring line segments.  5cm  Example.  End point | * Draws line segments. * Measures line segments | * Uses the word “segment” * Make correct sentences | * Illustration. * Demonstration. * Explanation | * Logical reasoning. * Creativity. * Effective communication. | * Dividers. * Pencil. * Rules etc | * Drawing * Measuring | A new MK Bk. 4 Pg. 142. |
|  |  | Drawing and measuring angles | * Drawing angles using a protractor. * Measuring ∠s using a protractor e.g. 500, 300, 600, 900 not exceeding 900 | * Draws angles using a protractor. * Measuring angles using a protractor. | * Uses the word “Protractor” * “Angles” etc | * Demonstration. * Guided discovery. * Explanation. * Illustration | * Effective communication. * Logical reasoning. * Accuracy. | * Rulers. * Protractor * Dividers. | * Drawing. * Measuring. | New Mk Bk 4 Pg. 143. |
| 3 | 1 | Constructing squares, rectangle and equilateral triangles | 1. Constructing squares 2. Rectangles using a protractor when given sides. | * Constructs squares, rectangles, using a protractor. | * Describes * Identifies and names the instruments for construction | * Demonstration. * Explanation | * Effective communication. * Critical thinking. * Logical reasoning. | * Protractors. * Dividers * Rulers * Pencils * Pair of compass | * Drawing * Constructing. * Measuring. |  |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y |  | 1. Constructing equilateral triangles when given sides using a pair of compasses only. | * Constructs equilateral triangles using a pair of compasses only when given sides. | Identifies and names the instruments used for construction | Demonstration  Explanation | Critical thinking  Logical reasoning | Protractor  Dividers  Ruler  Pencil  Pair of compasses | Drawing  Constructing  Measuring |  |
|  |  | Right angles | * Drawing and recognising right angles. | * Recognizes right angles. * Draws right angles using a protractor only. | * Points out and names right angles in the class room and in the play ground. | * Explanation. * Illustration. * Guided discovery. | * Logical reasoning. * Creative thinking. * Effective communication. | * Protractors. * Dividers. * Rulers * Pair of compasses. | -Drawing.  -Identifying  -Constructing.  -Measure. | New MK pupils bk 4 Pg. 144. |
|  |  | Perimeter | 1. Finding perimeter when given sides e.g  * Squares * Rectangles * Triangles. | * Finds perimeter of squares, rectangles and triangles when given sides. | * Explains the meaning of perimeter. * Illustrates perimeter of figures in exercise books. | * Illustration. * Demonstration * Explanation. | * Critical thinking. * Effective communication. * Logical thinking. | * Cuts of squares, rectangles and triangle. | * Drawing shapes. * Finding missing side. | New MK Bk 4 Pg. 204 |
|  | 4 | Area | * Finding area of square * Finding area of a rectangle | * Finds area by both counting and using formular * . | * Explains the meaning of area. * Finds the area. | * Explanation * Demonstration. * Guided discovery. | * Critical thinking. * Problem solving. * Effective communication. | * Cuts outs of shapes like squares, rectangles. | Drawing shapes.  Identifying sides.  Finding area. | New MK Bk 4 Pg. 209 |
|  |  | 2-  D  I  M  E  N  S  I  O  N  A  L  G  E  O  M  E  T  R  Y | Circles | **Making circles**   * Using hard paper. * Using strings. * Using the big toe. * Using a pair of compasses. | * Makes circles using hard papers and toes. * Uses a pair of compasses to draw circles. | * Identifies names and uses both strings and hard papers to make circles. | * Demonstration. * Explanation. * Discussion | * Critical thinking. * Problem solving. * Creativity. | * Strings. * Hard papers. | Making and drawing circles. | New MK Bk. 4 Pg. 134. |
|  |  | Parts of a circle | Naming parts of a circle.  Example.   * Diameter * Radius * Chord * Circumference | 1. Names the parts of a circle. | * Identifies names and uses the words like   radius  Diameter | * Explanation. * Illustration * Demonstration * Guided discovery. | * Logical reasoning. * Creativity. * Effective communication | * Cutouts. * Chart showing parts of a circle. | * Identifying. * Drawing * Naming parts. | New MK Bk 4 Pg. 135. |
|  |  | Diameter and radius | 1. Finding diameter when given radius. 2. Finding radius when given diameter. | * Finds diameter. * Measures diameter. * Finds radius * Measures radius. | * Explains and uses / relates polygons as used in our daily life. | * Explanation. * Discussion. * Question and answer. | * Logical reasoning. * Critical thinking. * Creativity. | * Real objects. * Cut outs. * Strings * Rulers. | * Relating parts of a circle. * Finding length of diameter and radius. | Mk Bk. 4 Pg. 139-140 |
|  | Polygons | * Drawing and naming some   polygons   * Triangles * Square * Rectangle * Pentagon – five sides. * Hexagon – Six sides. | * Identify and names the polygons. | * Explains and uses / relates polygons as used in our daily life. | * Explanation. * Discussion. * Question and answer. | * Logical reasoning. * Creativity. * Effective communication. | * Cut outs. * Real objects etc. | -Identifying.  -Naming  reading | repertoire |
|  |  | 3 –  D  I  M  E  N  S  I  O  N  A  L  F  I  G  U  R  E  S  /  G  E  O  M  E  T  R  Y | 3-dimensional geometry  Identification. | Identifying and naming 3 – dimensional figures.  Example   * Cone * Cylinder * Cube * Cuboid * Triangular pyramid etc. | * Identifying 3 – dimensional figures. * Naming 3-dimensional figure. * Drawing 3 – dimensional figures. | * Names and indentifies common solids in English and mother tongues. | * Explanation. * Illustration * Discovery. * Question and answer. | * Creative thinking. * Logical reasoning. * Effective communication. | * Models. * Cutouts. * Real objects of such shapes. | Drawing and naming. | New Mk Bk 4 Pg. 128. |
|  |  | Naming parts of the solid shapes. | Parts of solid shapes.  Example   1. Cube & cuboid   Edge  Face  Vertex   1. 6 faces 2. 8 vertices 3. 12 edges 4. Cylinder   Plane surface  Edges  Curves  surface   1. 1 curved surface 2. 2 plane surfaces 3. Area of parts of cube and cuboid 4. Volume of cubes and cuboid. | * Identifies and labels, faces, edges and vertices. * Counts the number of faces, edges and vertices. | * Identifies names and uses words like; edges, vertices and faces in our daily life. | * Explanation * Denomination * Illustration * Guided discovery | * Critical thinking. * Effective communication * Creativity. | * Models * Real objects * etc. | Drawing.  Naming  Identifying. | A New Mk Bk 4 Pg. 130. |
|  |  | 3 DIMENSIONAL GEOMETRY | Angles | **Types of angles**  P   1. Right angles   (Complementary angles of 2 angles only  x  400  X + 400 = 900  X+400-400 = 900- 400  X = 500   1. Straight angles   (Supplementary angles of 2 angles only  600  P + 600 = 1800  P+600-600=1800-600  P = 1200 | 1. Identify the different types of angles. 2. Find the complement and supplement of angles. | * Explains the meaning of complement + and supplement angles. | * Explanation. * Question and answer. * Discussion * Demonstration * Illustration | * Problem solving. * Logical reasoning. * Effective communication | * Cut outs. * Text books * Illustration * Chalkboard | * Identifying angles * Finding missing numbers | New MK primary MTC bk 4 pg. |
|  |  | DATA HANDLING | Tallies | Interpretation and drawing of picto graphs, bar graphs and line graphs | * Uses tally marks to collect and group data. * Organizes data. * Displays data. * Interprets data. | * Counts objects / people. * Records. * Describes graphs. * Explains graphs. | * Explanation. * Question and answer. * Illustration. * Discussion. * Demonstration. | * Effective communication. * Logical thinking. * Creative thinking. * Problem solving. | * Real objects e.g. * Straws books. * Pens * Bottle tops. | * Counts tally marks. * Growing using tallies. * Drawing * Reading * Interpreting. * Displaying * Collecting * Writing. | New MK MTC Primary Bk 5 Pg. 115 – 123.  Mk Old Edition P/S Bk 5 Pg. |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM II**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| NUMERACY | FRACTIONS | * Types of fraction * Naming parts of a mixed fraction * Conversion of mixed to improper and vice versa * Finding equivalent fractions * Reducing fractions * Comparing fractions * (≤, ≥ or =). * Operation on proper fraction * (Subtraction and addition only) * Operation on mixed fractions (addition and subtraction) * Word problem involving addition and subtraction of fraction. * Addition on different denominators * Subtraction of different denominators * Multiplication of fractions * Application of fractions * Decimal fractions. * From common to decimal and vice versa. * Place values of decimals * Addition on decimals * Subtraction on decimals * Arranging decimals | 2 weeks | The learner is able to solve problems involving fraction and relating them to real life situation |
| MEASURES | DIMENSIONAL GEOMETRY | * Identifying and naming two dimensional figures * Matching of pictures of figures to their names. * Drawing two dimensional figures (triangle, square, rectangle) * Drawing line and measuring line segments * Drawing and measuring angles. * Identifying right angles * Constructing 900 * Constructing a square * Constructing a rectangle * Constructing an equilateral triangle | 4 weeks | The learner is able to recognize and construct various geometric figures and relate them to other fields such as architectural drawings. |
|  |  | * 3. Dimension * Naming solid shapes * Identifying properties of three dimensional figures (cube, cuboid, cylinder) * Marking and drawing 3 dimensional figures * Finding volume of a cube and cuboid. * Angles of a triangle * Right and straight angles. |  |  |
| Interpretation of graphs and data | Data handling | * Counting and representing numbers using tally marks. * Drawing picto graphs * Interpreting picto graphs, * Recording information using tally marks * Reading, drawing and interpreting tables * Drawing and interpreting bar and line graphs | 1 ½ weeks | The learner is able to interpret and draw and solve problems involving graphs |
| Measurements | Money | * Recognition of notes * Currency * Addition of money * Completing shopping bills tables * Finding profits and losses * Costs and prices | 1 ½ weeks | The learner is able to solve practical problems related to utilization of Uganda currency in everyday life. |

**LESSON NOTES FOR MATHEMATICS P.4 TERM II**

**LESSON 1**

**TOPIC : FRACTIONS**

**SUBTOPIC : naming parts of fraction**

CONTENT : Definition

1. What is a fraction? A fraction is a part of a whole.

2. Parts of a fraction

Given 1

2 is the numerator

3 is the denominator

1 is the whole number

3. Names of fractions

Naming and shading fractions and writing in words.

Use real objects to teach parts of a whole (practical work)

1 a whole

a half

Two eights

4. Shade and unshaded fractions.

(a)  (b)  of 6

**ACTIVITY**: Exercise 5:1 pg 67, a new Mk bk 4

**LESSON 2**

**TOPIC : FRACTIONS**

**SUBTOPIC : Finding equivalent fractions**

CONTENT : How to get equivalent fractions.

* We can use the knowledge of multiples.

**Examples**: 

 =  x = ,  =  x  = 

 =  x = , ∴ = { x , , , …….}

**ACTIVITY**: List the first three equivalent fractions for:

1.  (b)  (c)  (d)  (e) 

**LESSON 3**

**TOPIC : FRACTIONS**

**SUBTOPIC : Equivalent fractions**

**CONTENT : Finding the missing part of a fraction**

Example: (a)  =   x  = 

**∴** =   x  = 

(b)  =   x  = 

**∴** =   x  = 

 x  = 

**ACTIVITY:** Exercise 5b MK bk 4 page 82

**LESSON 4**

**TOPIC : FRACTIONS**

**SUBTOPIC : Reducing fractions**

**CONTENT : Reduce**  to its lowest term.

Example:

(a) ÷ = 

÷ = 

∴ = 

(b) Write  to its lowest terms (using H.C.F/G.C.F)

÷ = 

F3 = { 1, 3}

F9 = { 1, 3 , 9 }

H.C.F = 3

**ACTIVITY**: Exercise 5d MK bk 4 page 84

**LESSON 5**

**TOPIC : FRACTIONS**

**SUBTOPIC : Comparing fractions without a number line**

**CONTENT :**

**(a) Example**: Which is greateror ?

 = , , ………..

Apply the symbols such as >, < or =

 = , , …………

∴is greater than 

**ACTIVITY**: Exercise 5f MK bk 4 page 86

**LESSON 6**

**TOPIC : FRACTIONS**

**SUBTOPIC : Ordering fractions**

**CONTENT : Arranging fractions starting with the largest.**

**Example 1**

1. , , 

 =  =  =  =  ……………..

 =  =  =  …………………..

 =  =  …………………….

∴, ,  starting from the biggest is , , 

**Example 2**

Arrange: , ,  starting with the smallest.

 =  =  =  =  = =  = = = 

 =  =  =  =  =  =  = = = 

 =  =  =  =  =  = 

∴, ,  from the smallest is , , 

ACTIVITY: Exercise 5f page 86.

**LESSON 7**

**TOPIC : FRACTIONS**

**SUBTOPIC : Operation on fractions**

**CONTENT : Addition of fractions with the same denominators**

**Example: 1**

 +  =  = 

**Example II**

 +  =  = 

**ACTIVITY:** Exercise 5g page 87

**LESSON 8**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of fractions with the same denominator in word**

**problem.**

**CONTENT :** Jesca dug  of the garden and Mary dug of the garden. What

part of the garden was dug?

Jesca dug

Mary dug  so  +  =  = 

ACTIVITY: Exercise 5h page 88

**LESSON 9**

**TOPIC : FRACTIONS**

**SUBTOPIC : Subtraction of fractions with the same denominators.**

**CONTENT :** Example 1: Example II

** -  =  =  -  =  =**

Introduce the use of LCM when adding and subtracting fractions with different denominators

**ACTIVITY:**  Exercise 51 page 89.

**LESSON 10**

**TOPIC : FRACTIONS**

**SUBTOPIC : Subtraction of fractions with the same denominators in**

**word problem.**

**CONTENT : Example 1:** Subtraction **** from****

** -  =  = **

Example 2

Andrew had ****of a cake, he ate****of it. What fraction remained?

Andrew had ****he ate ****

**∴ -  =  = **

ACTIVITY: Exercise 51 page 89.

**LESSON 11**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of fractions with different denominators**

**CONTENT : Example 1**

Add: ** + **

Using equivalent fractions

** =  =  =  = **………………..

** =  =  = **

** +  =  = **

**ACTIVITY**: Exercise 5n page 94

**LESSON 12**

**TOPIC : FRACTION**

**SUBTOPIC :** Subtraction of fractions with different denominators.

**CONTENT :** Example 1

Subtraction of ** - **

Using equivalent fractions.

** =  =  =  =** , …………….

** =  =  =  =** 

** +  =  =** 

**ACTIVITY**: Exercise 50 page 95 old edited Mk bk 4

**LESSON 13**

**TOPIC : FRACTIONS**

**SUBTOPIC : Mixed fractions as improper fractions**

**CONTENT :** Example 1:

 = 1 +  =  +  = 

Example II

 = 1 +  =  +  = 

ACTIVITY: Page 90 – 91 Exercise 5j

**LESSON 14**

**TOPIC : FRACTIONS**

**SUBTOPIC : Changing improper fractions to mixed fractions.**

**CONTENT :** Example 1: Change  to a mixed fraction.

**Working 1** **Working 2**

is +  +   = 

- 4

1

= 1 + 1 + 

= 2 = 2

ACTIVITY: Exercise 5k page 92

**LESSON 15**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of mixed fractions with the same denominators.**

**CONTENT**(1)Add: 1+ 4 to a mixed fraction.

2) Workout

= 2 + 1 = +

= 3

Re-arrange: = (1 + ) + (4 + )

= 1 + 4 +  + 

= 5 + 

= 5

ACTIVITY: Exercise 5L page 93.

**LESSON 16**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of mixed fractions with the same denominators in**

**word problem.**

**CONTENT :** James bought 6kg of meat on Monday and 7kg on Tuesday.

How many kilograms did he buy altogether?

6kg + 7kg.

Rearrange = (6 + ) + (7 + )

6 + 7 +  + 

13 +

13 + 1

= 14kg.

**ACTIVITY:** Exercise 5L page 93.

**LESSON 17**

**TOPIC : FRACTIONS**

**SUBTOPIC : Subtraction of mixed fractions with the same denominators**

**CONTENT :** Subtract 4 - 2.

Re-arrange = (4 + ) – (2 + )

= ( 4 – 2) + ( - )

= 2 + 

= 2

**ACTIVITY:** Exercise 5m page 93 old edited MK bk 4

**LESSON 18**

**TOPIC : FRACTIONS**

**SUBTOPIC : Fraction of a group.**

**CONTENT :** Example 1: What is  of 8?

8 glasses 2 groups shaded  of 8 = 4

**ACTIVITY:** Exercise 5q page 97.old edited MK bk 4

**LESSON 19**

**TOPIC : FRACTIONS**

**SUBTOPIC : Application of fractions**

**CONTENT :** A man had 100 cows on his farm. He gave away to his wife and

remained with the rest. How many cows did he give his wife?

20

x 100 = 2 x 20

**=** 40 cows

Find the number of cows his remained with

100 - 40 = 60 cows.

Find the fraction that he remained with;

1 - =  -  = 

= 

**ACTIVITY :** Exercise 5s page 138 book 5

**LESSON 20**

**TOPIC : FRACTIONS**

**SUBTOPIC : Multiplication of fractions**

**CONTENT : Multiply:**  x  = (2) x  = 

of= x =

 x  = =

**ACTIVITY :** Exercise 5r page 137 - 138 book 5old edited MK bk 4

**LESSON 21**

**TOPIC : FRACTIONS**

**SUBTOPIC : Writing fractions in decimalsupto tenths**

**CONTENT :** Example 1

 = ones Tenth

0 4 = 0.4

**ii)** 9 = 0.9

10

iii) 7 = 0.7

10

ACTIVITY: Exercise 5s page 99 Mk bk4 (old edited)

**LESSON 23**

**TOPIC : FRACTIONS**

**SUBTOPIC : Expressing decimal as common fractions**

**CONTENT :** Examples:

(a) Change 0.3 into a common fraction.

* 1. = 

(b) 0. 4 = 

ACTIVITY : Exercise 5U page 100 MK Bk. 4

**LESSON 23**

**TOPIC : FRACTIONS**

**SUBTOPIC : Place values of decimalupto tenths**

**CONTENT :** Examples

1. What is the place value of 3 in 0.03

0 .03

Hundredths

ACTIVITY: MK pupils book 4 page 100. (old edition)

**LESSON 24**

**TOPIC : FRACTIONS**

**SUBTOPIC : Writing decimal fractions in words.**

**CONTENT :** Example 1

Write 0.2 in words

0.2

Tenths

0.2 is either two tenths

Or zero point two

ACTIVITY: Exercise 5r page 99.

**LESSON 25**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of simple decimal fractions**

**CONTENT :** Examples: 2.3 + 3.8 Example II: Add: 2 + 0.7

2 . 3 2

3 . 8 + 0 . 7

6 . 1 2 .7

ACTIVITY: MK Primary mathematics (New Edition) pg. 103 exercise 5y

**LESSON 26**

**TOPIC : FRACTIONS**

**SUBTOPIC : Addition of decimal fractions using a number line.**

**CONTENT :** Add: 0.2 + 0.3

Example:

0.3

0.2

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

ACTIVITY: Exercise: 5x page 102 MK Bk. 4 Page 102

**LESSON 27**

**TOPIC : FRACTIONS**

**SUBTOPIC : Word problems involving addition of fractions (decimals)**

**CONTENT :** Examples:

(i) I ate 0.2 of a cake in morning and 0.7 of it in the evening. What decimal fraction did I eat altogether?

Morning 0 . 2

Evening + 0 . 7

0 . 9 altogether.

ACTIVITY: Exercise 5z1 MK pupils Bk. 4 page 104

**LESSON 28**

**TOPIC : FRACTIONS**

**SUBTOPIC : Subtraction of decimals.**

**CONTENT :** Examples: Subtraction: 0 . 5 – 0 . 2

0 . 5

- 0 . 2

0 . 3

ACTIVITY: Exercise 5z5 MK pupils Bk. 4 page. 108

**LESSON 29**

**TOPIC : FRACTIONS**

**SUBTOPIC : Word problems involving subtraction of decimal**

**CONTENT :**

Example:

Aisha had 7.2m of a string. She sold 8.5m. What length of the string did she remain?

Had 7 . 2m

Sold - 3 . 5m

= 3 . 7m

ACTIVITY: Exercise 5z9 MK pupils book 4 page 111

**LESSON 30**

**TOPIC : FRACTIONS**

**SUBTOPIC : Ordering decimal fractions**

**CONTENT :** Example 1.

Arrange 0.6, 0.2, 0.4 starting with the smallest

0.4

0.2

0.6

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7

∴ The order is 0.2, 0.4, 0.6

ACTIVITY: Exercise 5z3 Mk pupils BK. 4 Page. 107.

**LESSON 31**

**THEME: GEOMETRY**

**SUBTOPIC : 2 Dimensional Geometry**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Triangle** | **Square** | **Rectangle** | **Pentagon** | **Circle** |
|  |  |  |  |  |

**Activity:**  6:1 and 6:2 pg 90 – 91 A new Mk primary mathematics 2000 bk 4

**NOTE:** put emphasis on the use of well sharpened pencils and a ruler.

**LESSON 32**

**TOPIC: GEOMETRY**

**SUB TOPIC: DRAWING LINES**

1. Draw lines of the following lengths

a) 2cm b) 7cm

2cm 7cm

c) 4 cm

Children should be able to interpret the scale on the ruler.

4cm

Activity: Teachers collection

**LESSON 33**

Emphasize accuracy while measuring line and interpreting scales.

**TOPIC: GEOMETRY**

**SUB TOPIC: measuring line segments**

1. Use a ruler to measure the following line segments

a) b)

**LESSON 34**

**TOPIC: GEOMETRY**

**SUB TOPIC: identifying and drawing a right angle using a ruler and a set square**

1. Find the right angles in the object found in the classroom and compound
2. Identify right angels from the drawn angles

Right angle

Copy and draw a right angle at the given point

Activity :Pg 98 , A new Mk 20000 bk 4

**Note:** Use the protractor

**LESSON 35**

**TOPIC: GEOMETRY**

**SUB TOPIC: drawing a square and a rectangle using a set square and a ruler**

1. Use a set square and a ruler to draw a square whose sides are 4cm

Sketch

4cm 4cm

1. Draw a rectangle with length 6cm and width 3cm

Sketch

3cm 3cm

6cm

6cm

Activity: Exercise pg93 , A new Mk 2000 bk 4

**LESSON 36**

**TOPIC: GEOMETRY**

**SUB TOPIC: constructing a right angle**

1. construct a right angle using a pair of compasses, a ruler and a pencil

Activity: pg 93 A new Mk 2000 bk 4

**LESSON 37**

**TOPIC: 2 dimensional figures**

**SUB TOPIC: constructing a square**

1. construct a sqaure of length 4cm using a ruler, a pencil and a pair of compasses

Sketch

4cm 4cm

Activity: pg 93 A new Mk 2000 bk 4

**LESSON 38**

**TOPIC: 2 dimensional figures**

**SUB TOPIC: construction of a rectangle**

1. construct a rectangle of length 5cm and width 4cm using a ruler, a pencil and a pair of compasses

Sketch

4cm 4cm

5cm

5cm

Activity pg 94 new Mk 2000 bk 4

**LESSON 39**

**TOPIC: 2 dimensional figures**

**SUB TOPIC: construction of an equilateral triangle**

1. construct an equilateral triangle of sides 4cm

sketch

4cm 4cm 4cm

4cm

Activity: pg 95 new Mk 2000 bk 4

**LESSON 40**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Drawing and measuring angles using a protractor**

**CONTENT :** Using a ruler, pencil and a protractor, draw the following angles.

(a) (b) 450 (c) 600 (d) 300

900

ACTIVITY: Using a protractor, measure the following angles.

(a) (b) (c)

**LESSON 41**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : finding perimeter of 2-dimensional shapes**

1. Find the perimeter of the following:-

(a) (b)

7cm

2cm

4cm

4cm

(c) (d)

5cm

10cm

9cm

7cm

**LESSON 42**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Find the area of a square**

**CONTENT :** Find the area of a square whose side is 3cm.

Length = 3cm

Area = S x S

= 3cm x 3cm

= 9cm2

3cm

Find the area of:

Area = S x S

= 8cm x 8cm

= 64cm2

8cm

ACTIVITY: Exercise 12a page 210.

**LESSON 43**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Find the area of a rectangle.**

**CONTENT :** Find the area of a rectangle whose length is 10m by 6m.

A = L x W

A = 4cm x 3cm

A = 12cm2

3cm

4cm

2. Workout the area of the rectangle below

3cm

6cm

ACTIVITY Exercise 6:16 page 105 New Mk pupils bk 4

**LESSON 44**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Circles (making circles)**

**CONTENT :** Circles will be drawn in different forms like using:

- Hard papers / circular objects.

- Strings

- The big toe

- A pair of compasses

ACTIVITY: Exercise will be given.

- Draw a circle using

\* a circular object

\* a pair of compasses.

**LESSON 45**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Parts of a circle. (Naming)**

**CONTENT :** Parts shown on circles

Centre

Diameter

Radius

Circumference

•

AB is a chord because it is a straight line joining two points on a circle.

ACTIVITY: Exercise 7e page 130

**LESSON 46**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Finding the diameter when given the radius.**

**CONTENT :** Example

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Radius | 2cm | 6cm | 7cm | 9cm | 10cm | 13cm |
| Diameter | 4cm | 12cm | 14cm | 18cm | \_\_\_\_\_ | \_\_\_\_\_ |

Diameter = r + r

= 7cm + 7cm = 14cm

Diameter = r + r

= 6 + 6 = 12cm

Diameter = r + r

Diameter = r + r

= 10 + 10 = 20cm

= 9 + 9 = 18cm

ACTIVITY: Exercise given on page 131 Mk bk 4. (number 4)

**LESSON 47**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Finding the radius when given the diameter.**

**CONTENT :** Example

Find the radius of a circle whose diameter is 12cm.

Radius =Diameter

2

6

= = 6cm.

ACTIVITY: Exercise given on page 131 (numbers 2 and 3)

**LESSON 48**

**TOPIC : 2 Dimensional figures**

**SUBTOPIC : Polygons. (Drawing and naming polygons)**

**CONTENT :** Examples of common polygons.

|  |  |
| --- | --- |
| **Name** | **Number of sides** |
| Triangle | 3 |
| Quadrilateral | 4 |
| Pentagon | 5 |
| Hexagon | 6 |

ACTIVITY: Exercise on page 136 Mk bk 4

**LESSON 49**

**TOPIC : 3 Dimensional Figures**

**SUBTOPIC : Identifying and naming 3 dimensional figures.**

**CONTENT :** Solid shapes.

|  |  |
| --- | --- |
| **Geometric solid shapes** | **Name** |
|  | Cone |
|  | Cylinder |
|  | Cuboid |
|  | Triangular Pyramid |
|  | Cube |

ACTIVITY: Exercise 7b page 126. MK bk 4

**LESSON 50**

**TOPIC : 3 DIMENSIONAL GEOMETRY**

**SUBTOPIC : Naming parts of the solid shapes**

**CONTENT :** Cube.

Vertex (corner)

6 faces

8 vertices

12 edges

Face

Edge

Cone

2 faces

1 vertex

1 edge

Vertex

Curved face

Edge

Plane surface

ACTIVITY: Exercise 7c page 127

**LESSON 51**

**TOPIC : 3 DIMENSIONAL GEOMETRY**

**SUBTOPIC : Finding volume of a cuboid and the area of the shaded part.**

V = L x w x h

V = 5cm x 2cm x 3cm

V = 30cm3

Area of the shaded part

Area = L x w

= 3cm x 2cm

= 6cm2

**CONTENT :**Example:

5cm

2cm

3cm

ACTIVITY: Exercise will be given like:

1. Find the volume of a cuboid whose length is 10cm, width 5cm and height 2cm.

(i) Find the volume.

(ii) Find the area of the shaded part.

2.

2cm

6cm

3cm

5cm

1cm

3cm

3.

(i) Find the Area of the shaded part.

(ii) Find the volume

Refer to exercise 12a page 220 MK bk 4 (Old Edition)

**LESSON 52**

**TOPIC : 3 DIMENSIONAL GEOMETRY**

**SUBTOPIC : Types of angles and finding the value of the unknown**

**CONTENT :** Right angles or complementary angles of only two angles.

Straight angles or supplementary angles.

Finding the value of x

P + 700 = 900

P + 700 – 700 = 900 - 700

P = 900 - 700

P = 200

700

p

x + 400 = 900

x + 400 – 400 = 900 - 400

x = 900 - 400

x = 500

x

400

ACTIVITY: Exercise 7k page 139 Mk bk 4

**LESSON 53**

**TOPIC : 3 DIMENSIONAL GEOMETRY**

**SUBTOPIC : Straight angles or supplementary angles of only two angles**

**CONTENT :** Find the value of angle P.

m + 450 = 1800

m + 450 – 450 = 1800 - 450

m = 1800 - 450

m = 1350

P + 600 = 1800

P + 600 – 600 = 1800 - 600

P = 1800 - 600

P = 1200

P

600

m

450

ACTIVITY: Exercise 7p Page 142.

**LESSON 54**

**TOPIC : GRAPHS AND DATA INTERPRETATION**

**SUBTOPIC : Tallies**

**CONTENT :** Complete the tally marks

//// /// = 8, //// //// = 10, //// //// ///= 13, //// //// //// //// //// / = 26

//// //// = 9

Making tally marks.

7 = //// //// // 5 = ////, 12 = //// //// //

17 = //// //// //// //, 9 = //// ////

ACTIVITY: Exercise 6a page 106

**LESSON 55**

**TOPIC : GRAPHS AND DATA INTERPRETATION**

**SUBTOPIC : Tallies**

**CONTENT :** The information below shows the number of cars of different

colours counted by pupils.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Days of the week | White | Red | Black | Maroon |
| Monday | //// | //// /// | // | /// |
| Tuesday | //// / | //// // | //// // | / |
| Wednesday | //// //// / | / | /// | //// //// |
| Thursday | //// / | /// | //// | //// //// |

1. How many cars were seen on Monday?

18 cars were seen on Monday

1. Which colour appeared most?

White colour appeared most.

ACTIVITY: Exercise 6b page 107

**LESSON 56**

**TOPIC : DATA HANDLING (GRAPHS)**

**SUBTOPIC : Pictograph**

**CONTENT :** The graph below shows the number of balls picked by four

sisters from a shop.

|  |  |
| --- | --- |
|  | Doreen |
|  | Diana |
|  | Daphine |
|  | Daizy |



Scale. = 5 balls.

1. Which two sisters picked the same number of balls?

Diana and Daizy picked the same number of balls.

1. How many balls did Doreen and Daphine pick?

Doreen = 30, Daphine 20

= 30 + 20 = 50

Doreen and Daphine picked 50 balls.

ACTIVITY: Exercise 6f page 111 and 112.

**LESSON 57**

**TOPIC : GRAPHS**

**SUBTOPIC : Bar graphs**

**CONTENT :** The graph below shows the daily attendance of P.4 pupils for a

week.

40

Number of pupils

35

30

25

20

15

10

5

0

Mon Tue Wed ThurFri.

Days

(a) How many pupils were present on Thursday?

Thirty pupils were present on Thursday

(b) On which day was the biggest number of children present?

On Wednesday, there was the biggest attendance.

ACTIVITY : Activity 6g page 113 Mk bk 4

**LESSON 58**

**TOPIC : LINE GRAPHS**

**SUBTOPIC : The graph below shows the number of animals sold by**

**different people.**

(a) How many animals did Joy sell?

Joy sold 50 animals.

(b) Find the number of animals sold by Jelly and peace.

Jelly sold 40, Peace sold 30

40 + 30 = 70

They sold 70 animals.

Animals sold

50

40

30

20

10

0

Tom Joy Paul Jelly Peace

**Names of people**

**SCHEME OF WORK FOR P.4 MATHEATICS TERM III**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **PD** | | **THEME** | **SUB THEME** | **CONTENT** | **SUBJECT COMPETECIES** | **LANGUAGE COMPETENCIES** | **METHODS** | **LIFE SKILL** | **T/L AIDS** | **T/L ACTS** | **REF** |
|  | |  | **M**  **E**  **A**  **S**  **U**  **R**  **E**  **S** | **Money** | * Recognition of money. * Coins * Bank notes * Change shs. to cents and vice versa. * Adition of money * Subtracting of money. * Multiplication of money. * Direct proportions. * Buying and selling shopping bills. * Division of money. * Profit and loss. * Postage rates. | * Identifies coins and notes. * Buying and selling. * Calculates simple profits and loss. * Costs and pricing. | * Describes different coins and notes. * Roles playing using money in English. * Uses examples to describe meaning of profit and loss. | * Discussion. * Explanation. * Observation. * Demonstration * Dramatization. * Role playing. | * Effective communication. * Critical thinking. * Creativity. | * Coins. * Bank notes. * Classroom shape * Real objects. * Backs pens. * Tins * Envelopes * Straws * Bottles etc | Role playing using money.  Role playing the buyer andseller.  Describing coins notes.  Giving examples of profit and loss.  Working out problems involving profits and loss. |  |
| **Time** | * Revision on time. * Telling time. * Changing hours to minutes. * Addition of time. * Word problems. * Subtraction of time. * Word problem * Time in a.m. and p.m. | * Uses different types of clocks to tell time. * Converts measures of time. | * Tells time in the local language and English. * Gives months of the year in English. | * Explanation. * Discussion * Question and answer. * Observation. * Demonstration. * Role playing. | * Effective communication. * Critical thinking. * Creative thinking. * Logical thinking. * Effective communication. | * Wall clocks. * Calendars. * Timetable. | * Using real or model clock, the learner tells time. * Making a calendar showing what month of the year. * Working | New edition MTC MK pupils Bk 4 Pg. 161 185 |
|  | |  |  |  | * Changing days to hours. * Changing hours to days. * Changing weeks to days. * Changing days to weeks. * Addition of weeks and days * Subtraction of time in weeks and days. | months to days. | timetable in his / her exercise book. |  | * Critical thinking. |  | out problems involving time.   * Reading. |  |
|  | |  | MEASUREMENTS | Capacity | * Half and quarter litres. * Addition of litres as half litres. * Addition of litres and milliliters. | * Adds litres as half litres and milliliters. | * Expresses capacity of different items | * Discussion. * Explanation. * Question and answer. | * Critical thinking. * Effective communication. * Logical reasoning. | * ½ litre containers. * 1 litre container. | * Packing * Adding. | New MK MTC MK Bk. 4 pg. 222 – 227. |
|  | |  |  | Weight and volume (mass) | * Half and quarter Kg. * Changing Kg and gm and vice versa. * Add and subtract kg and gm. * Dozens, crates, trays. * Volume of cubes and cuboids. | * Changes Kgms go gms and vice versa. * Adds and subtracts kgms and gms. | * Expresses weight and volume of different items. | * Discussion. * Explanation * Question and answer. | New MK MTC pupils Bk 4 Pg. 228 – 235 |
|  | |  | **A**  **L**  **G**  **E**  **B**  **R**  **A** | Equations with and without letters | * Revision (using letters for numbers) * Adding letters e.g. P+P = 2P   2k + 4k = 6k   * Finding perimeter using letters for numbers. * Subtracting letters. * Collecting like terms involving addition only . * Substitution.   Equation of:   * Addition * Subtraction * Division e.g.   2x = 8, x÷2 = 4   * Forming equations of addition and subtraction. | * Adds letters. * Uses letters for numbers. * Finds perimeter using letters for numbers. * Collects like terms. * Does substitution. * Solves given equations. * Forms equations and solve them. | * Reads and creates simple equations without letters. | * Guided discovery. * Participatory approach. * Discussion. * Brain storming. | * Effective communication. * Critical thinking. * Problem solving. | * Books. * Pens * Text books. | -Adding  -Subtract  -Forming equations | MK primary pupils bk 4 pg. 245-260 |

**TOPICAL BREAKDOWN FOR P.4 MATHEMATICS TERM III**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **THEME** | **TOPIC** | **SUB-TOPIC** | **DURATION** | **OUT COMES** |
| MEASUREMENTS | TIME | * Days of the week * Conversion of days to weeks and vice versa. * Month of the year. * Converting years into months and vice versa. * Converting months to days * Telling time * Changing days to hours and vice versa * Changing hours to minutes and vice versa. * Finding duration. | 2 week  (1-3) | * The learner is able to apply the knowledge of time in real life situation. |
|  | Length  Mass  Capacity | * Measuring length (M and cm) * Finding perimeter and area of a square, rectangle and triangle. * Measuring mass * Converting mass (Kg to g and vice versa) * Measuring capacity. * Litres to milli8litres * Word problems involving capacity | 4 weeks  (8 – 9)  (3 – 7) | * The learner is able to recognize and use standard instruments and units for measuring mass, length and capacity |
| ALGEBRA | Equations | * Collecting like terms * Finding the missing numbers in (1)addition,(2)subtraction, (3)multiplication and (4)division. * Word problems on missing numbers. * Substitution. * Equations with addition * Subtraction * Multiplication * Division * Forming and solving equation. | 2 weeks  (7 – 9) | * The learner is able to solve mathematical problems and puzzles using the knowledge of Algebra. |

**P.4 MATHEMATICS TERM III**

**LESSON 1**

**TOPIC : MONEY**

**SUBTOPIC : Recognition of money**

**Finding the value of small denominations**

CONTENT :

Example: Peter had 2 notes of 1000/=. How much money was he having?

|  |  |
| --- | --- |
| **COINS** | **BANK NOTES** |
| 50 /= | 1000/= |
| 100/= | 2,000/= |
| 200/= | 5,000/= |
| 500/= | 10,000/= |
| 1000/= | 20,000/= |
|  | 50,000/= |

ACTIVITY : Exercise 8a page MK bk 4 page 148.

**LESSON 2**

**TOPIC : MONEY (measurements)**

**SUBTOPIC : Addition of money**

CONTENT : Example: A man had 4800/= and he was given sh. 1200 by his

friend. How much money did he have altogether?

Sh. 4800

+ Sh. 1200

Sh. 6000

A man had sh. 6000 altogether.

ACTIVITY: Exercise 8b page 149 MK 4

**LESSON 3**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Subtraction of money**

CONTENT : Example: How much change will you get from a one thousand

shilling note if you spend sh. 350?

You had sh. 1000

You spent sh. 350

Sh. 650

ACTIVITY: Exercise 8c page 150 of MKbk4

**LESSON 4**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Multiplication of money**

CONTENT : The cost of 1 loaf of bread is sh. 1800. Find the cost of 3 loaves.

Shs 1800

x 3

Sh. 5400

ACTIVITY: Exercise 8d page 151 of MKbk4

**LESSON 5**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Buying and selling (Shopping Bills) (Price list)**

CONTENT : Example

|  |  |
| --- | --- |
| Item | Price in shillings |
| 1 bar of soap | 1000/= |
| 1 kg of sugar | 1800/= |
| 1 kg of maize flour | 1200/= |
| 1 packet of salt | 400/= |
| An egg | 150/= |

**Questions**

(a) Find the cost of 3 kg of sugar.

(b) If Allen bought 4kg of maize flour and 1 bar of soap. How much money did she

pay?

1. Calculate the cost of buying 1 bar of soap, 1kg of sugar, 1kg of flour, 1 packet

of salt.

1. Find the total expenditure if one buys all the items above.

ACTIVITY: Exercise page 152 (Mk New Edition)

**LESSON 6**

**TOPIC : MONEY (Measurements)**

**SUB TOPIC: Shopping Bills**

CONTENT : Example 1

Mariam went to the school canteen and bought the following items

3 chaps at 500/= each.

4 chapats at 800/=

1. bottles of soda at 1000/= each.

(a) Find her total expenditure.

(b) Find her balance if she went with 8000/=

**Working**

Chaps Chapatis Soda

500= 800= 1000=

x3 x 4 x 2

1500 3200= 2000=

Total expenditure

Balance= Sh. 8000

- 6700

Sh. 1300

Sh. 3200

1500

+ 2000

Sh. 6700

ACTIVITY: Teachers collection.

**LESSON 7**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Division of money**

CONTENT : Example

4 books cost 1200/=. What is the cost of one book?

4 books cost - 1200/=

300

1 book will cost -  = 300/=

ACTIVITY: Exercise 81 page 153 (Mk new Edition)

**LESSON 8**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Finding profit**

CONTENT : Profit = selling price – buying price/ cost price

Example: Abdul bought a shirt at sh. 800

He sold it at 1000/=. What was his profit?

Buying price Sh. 800

Selling price Sh. 1000

Profit = S.P – B.P

= Sh. 1000 – 800

= Sh. 200

ACTIVITY: Exercise 8k page 155 (Old Mk) or 8h page 156 (new Edition)

**LESSON 9**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Finding Loss**

CONTENT : Example: John bought a shirt at 7200/= and sold it at 6000/=.

Calculate his loss.

Loss = B.P – S.P or CP - SP

= B.P =7200/=

Loss = 7200/= –6000/=

= 1200/=

Loss = 1200/=

ACTIVITY: Exercise 8i page 157 of MK bk 4.

**LESSON 10**

**TOPIC : MONEY (Measurements)**

**SUBTOPIC : Postage rates**

CONTENT : Study this table.

|  |  |  |
| --- | --- | --- |
| **Articles** | **Destination** | **Charge** |
| Letter | Uganda  East Africa  Africa  Europe  Asia  America | Sh. 150  Sh. 400  Sh. 500  Sh. 500  Sh. 500  Sh. 550 |
| Small parcels (Air) | Uganda  East Africa  Africa  Europe  Asia  America | Sh. 1200  Sh. 10,000  Sh. 11,700  Sh. 16,000  Sh. 22,500  Sh. 8,450 |

**Example:**

Joseph sends 2 letters to Kenya and 3 letters to Tanzania. How much will he pay?

2 letters to Kenya will pay shs. 400 x 2 = sh. 800

3 letters to Tanzania will pay shs. 400 x 3 = sh. 1200

Total Cost = Sh. 2000

Therefore, Joseph will pay 2000/=

ACTIVITY: Exercise 8j on page 159 of Mk bk 4

**LESSON 11**

**TOPIC : TIME**

**SUBTOPIC : Telling time**

CONTENT : Show the following time on a clock face.

(a) A quarter past 9 (b) 20 minutes to 11

ACTIVITY: Exercise 9a on page 162 of Mk bk 4.

**LESSON 12**

**TOPIC : TIME**

**SUBTOPIC : Changing hours to minutes**

CONTENT : Examples

(a) Change 4hrs to minutes

1 hr = 60 minutes

4 hrs = (4 x 60) minutes

240 minutes

b) How many minutes are in 3 ¼ hours?

⇒ 3¼ hrs = (3 x ¼ ) hours

1hr = 60 min

3 hrs = (3 x 60 ) minutes

180 minutes

¼ hr = 15 minutes

3¼hrs =195 minutes

Exercise 9b page 163 of MK bk 4

**LESSON 13**

**TOPIC : TIME**

**SUBTOPIC : Writing the time in hours and minutes**

CONTENT : Examples: Write 70 minutes in hours and

1 hr = 60 minutes

70 min =

70 minutes = 1 hour 10 minutes.

ACTIVITY: Exercise 9c page 163 of Mk bk 4

**LESSON 14**

**TOPIC : TIME**

**SUBTOPIC : Word problems on changing minutes to hrs**

CONTENT : Examples: A lesson took 140 minutes

How long was that lesson in hours.

Solution: 60 minutes = 1hr

140 minutes = 

So, 140 minutes = 2 hrs 20 minutes.

ACTIVITY: Exercise 9d page 164 of MK bk 4

**LESSON 15**

**TOPIC : TIME**

**SUBTOPIC : Addition of time**

CONTENT : (a) HRS MIN (b) HRS MIN

3 40 70 11 50 65 – 60 = 05

+ 4 30-602 15

8 10 10 3 05

ACTIVITY: Exercise 9e page 165 of MK bk 4.

**LESSON 16**

**TOPIC : TIME**

**SUBTOPIC : Word problems of addition of time**

CONTENT : Examples:

A taxi driver took 2 hours 40 minutes to drive from Kampala to Masaka and 1 hour 45 minutes from Masaka to Kabula. How much time did he take altogether?

HRS MIN

2 40

+1 45

4 25

85 ÷ 60

= 1r25

ACTIVITY: Exercise 9f page 167 of Mk bk 4

**LESSON 17**

**TOPIC : TIME**

**SUB TOPIC: Subtraction of time**

CONTENT : Examples

(a) Hrs Min (b) HrsMin

2

85

80

3

4 20 3 25

- 1 50 - 1 45

1 30 1 40

ACTIVITY: Exercise 9g page 168 Mk bk 4

**LESSON 18**

**TOPIC : TIME**

**SUBTOPIC : Word problems of time (Subtraction)**

**CONTENT** :

Bankunda spent 5hours 20 minutes at school, she played for 1 hour 30 minutes. For how long did she stay in class?

Total time at school

80

4

Total time at school = 5hrs 20min

Time spent playing -1hr 30min

Time in class = 3 50

ACTIVITY: Exercise 9h page 169 of Mk bk 4

**LESSON 19**

**TOPIC : TIME**

**SUBTOPIC : Writing time in a.m and p.m**

CONTENT : Examples

(a) Express 6 O’clock in the morning using a.m. or p.m.

1. O’clock = 6: 00a.m

(b) Express 8 O’clock in the evening in figures:

8 O’clock = 8:00p.m

ACTIVITY: Exercise 9k and 9L pages 174 and 175.

**LESSON 20**

**TOPIC : TIME**

**SUBTOPIC : Finding duration**

CONTENT : Luyiga walked from her home at 7:15a.m and reached school at

8:15a.m. How long did it take her?

Hrs Min

Ending time = 8 : 15a.m

Starting time = 7 : 15a.m

Duration = 1 00

So, she took 1 hour.

ACTIVITY: Exercise 9m page 176 of Mk bk 4

**LESSON 21**

**TOPIC : TIME**

**SUBTOPIC : Changing days to hours**

CONTENT : Examples

How many hours are in 5 days?

1 day = 24 hours

5 days = 2 4 hrs

x 5

5 days = 120hrs

ACTIVITY: Exercise 9(o) page 177 of Mk bk 4

**LESSON 22**

**TOPIC : TIME**

**SUBTOPIC : Changing hours to days**

CONTENT : Examples: How many days are in 72 hours?

Solution 24hrs make 1 day

1hr makes 

72 hrs make x 72hrs

2

72hrs = 3 hours.

ACTIVITY: Exercise: 9n page 177 of Mk bk 4.

**LESSON 23**

**TOPIC : TIME**

**SUBTOPIC : Changing weeks to days**

CONTENT : Examples: How many days are in 8 wks?

1wk = 7days

8wks = 8 x 7 days

= 56days

ACTIVITY: Exercise 9p page 178 of MK bk 4

**LESSON 24**

**TOPIC : TIME**

**SUBTOPIC : Changing days to weeks**

CONTENT : Examples: How many weeks are there in 63 days?

7 days make 1 week

63 days = weeks

= 9 weeks

ACTIVITY: Exercise 9q page 178 of MK bk 4

**LESSON 25**

**TOPIC : TIME**

**SUBTOPIC : Addition of time in weeks and days**

CONTENT : (a) Wks Days

1 3

+ 2 5

4 1

8 ÷ 7 = 1r1

(b) A man took 5 weeks 5 days to make a wooden bed and 4 weeks 6 days to make a chair, How long did the man take on both?

Wks Days

5 5

+4 6

10 4

11 ÷ 7 = 1r4

ACTIVITY: Exercise 9s page 180 and 181 (New edition of MKbk 4)

**LESSON 26**

**TOPIC : TIME**

**SUBTOPIC : Subtraction of time in wks and days**

CONTENT : Example: Wks Days

9

2

3 2

- 1 5

1 4

ACTIVITY: Exercise 9t page 182 of Mk bk 4

**LESSON 27**

**TOPIC : measure**

**SUBTOPIC : months of the year**

1. Which months have
2. 30 days
3. 31 days
4. How many days does February have?

Interpretation of calendars

Activity: pg150 , a new Mk 2000 bk

**LESSON 28**

**TOPIC : measure**

**SUBTOPIC : converting years into months**

1. Change 3 years into months

1 year = 12 months

3 years = (3x12) months

= 36 months

Activity: pg 151, a new Mk bk 4

**LESSON 29**

**TOPIC : measure**

**SUBTOPIC : converting months to years**

1. Our baby is 24 months old. How old is she in years?

12 months = 1 year

24 months = (24÷2) years

= 2 years

Activity: pg 152 a new Mk bk 4

**LESSON 30**

**TOPIC : measure**

**SUBTOPIC : converting months to days**

1. How many days are there in the first two months of the year?

Jan = 31 days

Feb = 28 days

Total = 59 days

1. How many days are in the last 3 months of the year?

Activity: pg 153 a new Mk bk 4

**LESSON 31**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition in metres and centimeters**

CONTENT : Examples

Add: 8m 25cm

+ 6m 85cm

15 10

Add: 2m 45cm

+ 6m 36cm

8 81

ACTIVITY: Exercise 10d page 187 MK book 4.

**LESSON 32**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition in metres and centimeters in word problem**

CONTENT : Example 1

Namusoke had 8m 55cm of cloth. She later bought 10m 85cm of cloth. Find the total length of cloth she has now.

M CM

Namusoke had 8 55

She later bought + 10 85

Total cloth bought 19 40

ACTIVITY: Exercise 10e page 188.

**LESSON 33**

**TOPIC : MEASURES (Length)**

**SUBTOPIC : Subtraction of metres and centimetres**

CONTENT : Example 1

Subtract : M CM

6 80

- 2 60

4 20

Subtract : M CM

9 24 100+24=124

- 5 30

3 94

8

ACTIVITY: Exercise 10f page 188 MK MTC bk 4.

**LESSON 34**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Subtraction of metres and centimeters in word problem**

CONTENT : Example 1

Otim had a ribbon measuring 15m 36cm. He cut off 9m 21cm. What length remained?

M CM

Otim had 15 36

He cut off - 9 21

6 15

Kaseggu had a string measuring25m 15m. He cut off 18m 35cm. What length of the string did he remain with?

M CM

Subtract: M CM

9 24

- 5 30

3 94

His string measured 25 15

He cut off - 18 35

Length of the string left 6 80

ACTIVITY: Exercise 10g page 189.

**LESSON 35**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Changing kilometers into metres**

CONTENT : Example 1

Example 1

Change 5km to metres.

1km = 1000m

5km = 5 x 1000

= 5000m

∴ 5km = 5000m

Example II

Change 12km to metres.

1km = 1000m

12km = 12 x 1000

= 12000m

∴ 12km = 12000m

ACTIVITY: Exercise 10m and 10n page 195.

**LESSON 36**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Changing metres tokilometers**

CONTENT : Example 1

Change 3000m to km

Since 1000m = 1km

3000m = = 3km

ACTIVITY: Exercise 10j page 193

**LESSON 37**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Writing as kilometers and metres**

CONTENT : Example 1

Write 800m as km and m

= 0 Km 800m

or 0.8km

|  |  |  |  |
| --- | --- | --- | --- |
| KM | HM | DM | M |
|  | 8 | 0 | 0 |

Example II

Write 7430m as km and m

= 7km 430m

Or 7.43km.

|  |  |  |  |
| --- | --- | --- | --- |
| KM | HM | DM | M |
| 7 | 4 | 3 | 0 |

ACTIVITY: Exercise 10k page 193 (New Edition)

**LESSON 38**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition of long distances**

CONTENT : Example 1

Add: 15km 880m to 6km 750m.

Km m Add: Km m

15 880 13 530

+ 6 750 + 8 670

22 630 22 200

ACTIVITY: Exercise 10p page 197

**LESSON 39**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Subtraction of long distances**

CONTENT : Example 1 Example 2

Subtract Km m Subtract: Km m

46 260 280 455

- 12 370 - 130 690

33 890 149 765

ACTIVITY: Exercise 10q page 198

**LESSON 40**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Half and quarter litres**

CONTENT : Example

1. How many half litre bottles of water can fill a jerrycan of 10litres?

1 litre = 2 half litres

10 litres= 10 x 2 half litres

= 20 half litres.

1. How many litre bottles of milk can fill a jerrycan of 20 litres?

1 litre= 4 quarter litres

20 litres = (4 x 20) quarter litres

= 80 quarter litres.

ACTIVITY: Exercise 13a pages 223 and 224.

**LESSON 41**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition of litres and half litres**

CONTENT : Example.

Add 12 litres + 20 litres

12litres

+20litres

32litres

2. Add 1 ½ litres + 2 ½ litres

ACTIVITY: Exercise13b pages 224-225 MKbk 4 old edition

**LESSON 42**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Changing liters to mililitres**

Change 5 litres to mililitres

1 liter = 1000ml

5litres = (5x1000) ml

= 5000ml

**LESSON 43**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : converting mililitres to litres**

Express 4000ml to litres

1000 ml = 1 litre

4000ml = 4000

1000

= 4 litres activity: pg184 .new Mk bk 4

**LESSON 44**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Changing kilograms to grams**

CONTENT : Example

1. Change 4kg into grams

(b) Change kg into grams

1kg = 1000g

kg =  x 1000g

= 800g

1kg = 1000g

4kg = 4000g

200

kg = 500g

4kg = 4500g

ACTIVITY: Exercise 14c page 230 of Mk bk 4

**LESSON 45**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Changing grams to kilograms**

CONTENT : Example

(b) Change 4500g into kg.

1000g = 1kg

4500g = = 

= 4.5kg or 4kg.

(a) Change 2000g into kg

1000g = 1kg

2000g =  x 1kg

= 2kg

ACTIVITY: Exercise 14d pages 230 and 231 of MK bk 4

**LESSON 46**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition of kilograms and grams**

Example II

Add: 104kg 420g + 187kg 350

Kg g

104 420

+187 350

291 770

CONTENT : Example

Add: Kg g

2 250

+ 3 150

5kg 400g

ACTIVITY: Exercise 14e page 231

**LESSON 47**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Addition of kilograms and grams in word problems**

CONTENT : Examples

Trevor’s father weighs 53kg 550g and his mother weighs 46kg 850g. Find their total weight.

Kg g

53 550

+ 46 850

100 400

============

ACTIVITY: Exercise 14g page 232

**LESSON 48**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Subtraction of kilograms and grams**

CONTENT : Examples

Subtract 59kg 423g – 39kg 651

Kg g

59 423

- 39 651

19 772

Subtract : Kg g

75 640

- 28 450

47 190

**ACTIVITY**: Exercise 14h page 234

**LESSON 49**

**TOPIC : LENGTH, MASS AND CAPACITY**

**SUBTOPIC : Subtraction of kilograms and grams in word problems.**

CONTENT : Example

Babirye had 40kg 350g of ghee. She sold 26kg 850 of it. How much ghee did she remain with?

Kg g

She had 40 350

She sold - 26 850

She remained with 13 500

ACTIVITY: Exercise 141 page 234 MK bk 4

**LESSON 1**

**TOPIC : ALGEBRA**

**SUBTOPIC : addition of letters for numbers**

CONTENT : example I

1. Add m + m + m + m 2. Simplify 2y + y + 3y

M+m+m+m = 3m 2y+3y + y = 6y

3. Find the perimeter of the figure

P = s+s+s

2p 4p = 3p+4p+2p

= 9p

3p

Activity 😐Exercise 16 Mk bk 4 pg 250

**LESSON 2:**

**TOPIC : ALGEBRA**

**SUBTOPIC : Subtraction of letters for numbers**

1. Workout 2. Simplify;

3m - m 7 y – 4y

3m – m = 2m 7y – 4y = 3y

Activity: Exercise 5k pg 252 Mk 4 old edition

**LESSON 3:**

**TOPIC : ALGEBRA**

**SUBTOPIC : collecting like terms involving addition only**

1. Collect like terms

a) 2k + 5m + k b) 7x +10 y + 2x + y

(2k+k) + 5m 7x + 2x + 10 y + y

3k + 5m 9x + 11y

Activity: exercise 16 j Mk bk 4 pg 257 old edition

**LESSON 4**

**TOPIC : ALGEBRA**

**SUBTOPIC : Equations with and without letters**

CONTENT : Solving equations involving addition.

Examples: (a) + 3 = 9 (b) P + 5 =

+ 3 – 3 = 9 – 3 P + 5 – 5 = 11 - 5

= 6 P = 6

ACTIVITY: Exercise 16c and 16d MK bk 4 pg. 246 and 247

**LESSON 5**

**TOPIC : ALGEBRA**

**SUBTOPIC : Solving equations involving subtraction**

CONTENT : Finding the value of the unknown

Examples: (a) - 4 = 6 (b) y - 7 = 21

- 4 + 4 = 6 + 4 y - 7 + 7 = 21 + 7

= 10 y = 28

ACTIVITY: Exercise 16e pg. 247

**LESSON 6**

**TOPIC : ALGEBRA**

**SUBTOPIC : Adding letters for numbers**

CONTENT : Example:

(a) m + m + m = 3m (b) x + x + x + x + x = 5x

ACTIVITY: Exercise 16f Mk Bk4 pg. 248

**LESSON 7**

**TOPIC : ALGEBRA**

**SUBTOPIC : Collecting like terms**

CONTENT : Example:

(a) 7x + 8x + x = 16x (b) 5c + 4c + 3c = 12c

ACTIVITY: Exercise 16h Mk Bk4 pg. 250

**LESSON 8**

**TOPIC : ALGEBRA**

**SUBTOPIC : Finding perimeter using unknowns**

CONTENT : Find the perimeter of this figure below:-

Perimeter = s + s + s

= 3p + 4p + 2p

Perimeter = 9p

4p

2p

3p

ACTIVITY: Exercise 16 MkBk 4 pg. 250

**LESSON 9**

**TOPIC : ALGEBRA**

**SUBTOPIC : Collecting more like terms**

CONTENT : Example:

(b) Collect like terms

= 8b + 2p + 12b + 3p

= (8b + 12b) + (2p + 3p)

= 20b + 5p

(a) Collect like terms

= x + y + x + 3y + x

= x + x + x + y + 3y

= 3x + 4y

ACTIVITY: Exercise 16j Mk Bk4 pg. 251 and 252

**LESSON 10**

**TOPIC : ALGEBRA**

**SUBTOPIC : Collecting like terms (addition and Subtraction)**

CONTENT : Example:

(b) Collect like terms

= 6a + a - m

= 7a - m

(a) Collect like terms

= 9d + 4c – 3c

= 9d + c

CTIVITY: Exercise 5k page 252

**LESSON 11**

**TOPIC : ALGEBRA**

**SUBTOPIC : SUBSTITUTION**

CONTENT : Example: (a) If P = 3 and m = 6, find the value of

1. P + 4 = 3 + 4

= 7

ACTIVITY: Exercise 16m Mk pg. 253

**LESSON12**

**TOPIC : ALGEBRA**

**SUBTOPIC : MORE SUBSTITUTION**

CONTENT : Examples: If x = 3, y = 4 and z = 5, Find the value:

(a) = x + y + z

(b) xyz

= *x*x y x z

= 3 x 4 x 5

= 60

= 3 + 4 + 5

= 12

ACTIVITY: Exercise 16n Mkbk 4 pg. 253

**LESSON 13**

**TOPIC : ALGEBRA**

**SUBTOPIC : Solving equations involving addition**

CONTENT : Example:

1. 4 + y = 10

4 – 4 + y = 10 - 4

y = 6

(a) + 3 = 9

+ 3 – 3 = 9 – 3

= 6

ACTIVITY: Exercise 16d Mk bk4 page 247

**LESSON 14**

**TOPIC : ALGEBRA**

**SUBTOPIC : Solving equations involving subtraction**

CONTENT : Example:

(b) y - 4 = 7

y – 4 + 4 = 7 + 4

y = 11

(a) - 3 = 5

- 3 + 3 = 5 + 3

= 8

ACTIVITY: Exercise 16e Mk bk 4 page 247

**LESSON 15**

**TOPIC : ALGEBRA**

**SUBTOPIC : Solving equations involving multiplication**

CONTENT : Examples.

(a) 3p = 21

 = 

P = 7

(b) 13 x = 26

 = 

= 2

**LESSON 16**

**TOPIC : ALGEBRA**

**SUBTOPIC : Solving equations involving division**

CONTENT : Examples:

(b) = 5

4x = 5 x 4

y = 20

(a) h ÷ 3 = 2

3 x  = 2 x 3

h = 6

ACTIVITY: Exercise 16r and 16s Mkbk 4 page 256

**LESSON 17**

**TOPIC : ALGEBRA**

**SUBTOPIC : Forming and solving equations**

CONTENT : Addition and subtraction

Example:

(a) I think of a number, add 3 to it and the result is 14. What is the number? Let the number be n.

n + 3 = 14

n + 3 – 3 = 14 – 3

n = 11

∴ The number is 11.

(b) Think of a number, subtract 3 from it, my answer is 17. What is the number?

Let the number be y

y – 3 = 17

y – 3 + 3 = 17 + 3

y = 20 ∴ the number is 20.

ACTIVITY: Exercise 16t and 16u pages 257 and 258.

**LESSON 18**

**TOPIC : ALGEBRA**

**SUBTOPIC : Forming and solving equations**

CONTENT : Multiplication and division

Example:

There are 4 groups in a class. If each group has the same number of pupils, altogether there are 40 pupils. How many pupils are in each group?

Let the number of each group be n

4 x n = 40

10

 = 

n = 10 ∴ 10 pupils are in each group

ACTIVITY: Exercise 16v and 16w onpages 259 and 260

REMARKS