OSEB

P.3 MATHEMATICS LESSON NOTES TERM.3

Breakdown for term III

1. Geometry

i) Naming and drawing shapes

ii) Counting shapes

2. Measures

i) Days of the week

ii) Telling time

iii) Months of the year

iv) Length

- Addition of metres and centimeters
- Subtraction of metres and centimeters
- Changing from metres to centimeters
- Changing from centimeters to metres
- Finding perimeter and area

v) Capacity

- Changing from ltires to centiliters
- Changing from centiliters to litres
- Addition of litres and centilitres
- Subtraction of litres and centiliters

vi) Weight

- Estimation of weight
- Comparing weight
- Changing from kilograms to grams
- Changing from grams to kilograms
- Addition of kilograms and grams
- Subtraction of kilograms and grams

vii) Money

- Addition of money
- Subtraction of money
- Shopping
- Multiplication of money
- Division of money

viii) Algebra
- Finding unknown
- Addition
- Subtraction
- Multiplication
- Division
- Word problems

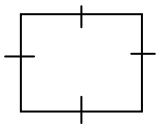
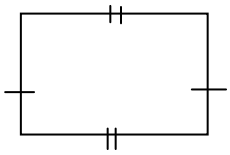
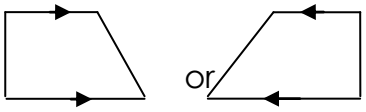
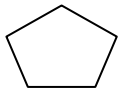
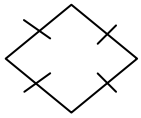
ix) Collecting like terms

Topic
Subtopic content

Lesson 1
Geometry
Types of shapes
Definition

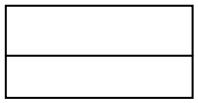
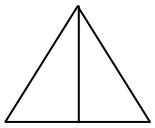
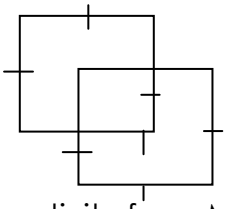
Geometry is a branch of mathematics that deals with the study of shapes and their properties.

Types of shapes

Shape	Name	Properties
	Square	- All sides are equal - Has 4 sides
	Rectangle	- Two opposite sides are equal - Has 4 sides
	Trapezium	- Two opposite sides are parallel - Has 4 sides
	Pentagon	- Has 5 sides
	Rhombus	- All sides are equal - Has 4 sides

Evaluation Activity

An activity from Understanding Mathematics BK3 pg63 and MK bk3 p117.

Topic Subtopic content **Evaluation activity**	**Lesson 2** **Geometry** **Counting shapes** **Example** a) Count the rectangles  = 3 rectangles b) Count the triangles  = 3 triangles c) Count the squares  = 3 squares An activity from MK bk3 pg118
Topic Subtopic content **Evaluation Activity**	**Lesson 3** **Measures** **Days of the week** **Listing the days of the week** Sunday Monday Tuesday Wednesday Thursday Friday Saturday **Questions** a) What is the first day of the week? b) What is the last day of the week? c) Which day of the week comes after the first day of the week? d) Name the day of the week that comes before a day Muslims go for prayers? **An activity from MK Bk 3 Pg 126**
Topic Subtopic content	**Lesson 4** **Measures** **Changing weeks to days** **Examples** How many days are there in 2 weeks? 1 week has 7 days

Evaluation activity

2 weeks have (2 x 7)
= 14 days
An activity from MK bk3 pg126

Topic
Subtopic
content

Lesson 5
Measures
Changing days to weeks
Example
Convert 21 days to weeks
Solution 7 days make a week
21 days make $\frac{21}{7}$ = 3 weeks

Evaluation

An activity from teachers' own collection

Topic
Subtopic
content

Lesson 6
Measures
Completing tables about days and weeks
Examples

Weeks	1	2	3	4			7
Days	7	14			35	42	

1 x 7 2 x 7 35÷ 7
1 - 7 days 14 **5**

Evaluation

An activity from MK bk3 pg126

Topic
Subtopic
content

Lesson 26
Measures
Months of the year with their days
Listing months of the year

1. January - 31
2. February - 28/29
3. March - 31
4. April - 30
5. May - 31
6. June - 30
7. July - 31
8. August - 31
9. September - 30
10. October - 31
11. November - 30
12. December - 31

Evaluation

Formulated questions by the teacher
Mk bk3 pg138

Topic

Lesson 9
Measures

Subtopic content

Changing years to months

Example

There are 12 months in a year. How many months are in 2 years?

1 year has 12 months

2 years have (2 x 12)

= 24 months

Evaluation

Mk bk3 pg139

Lesson 28

Topic

Measures

Subtopic

Changing months to years

content

Example

How many years are in 36 months? (use repeated subtraction)

3 6

-1 2 (1 year)

2 4

-1 2 (1 year)

1 2

-1 2 (1 year)

0 0

∴ 3 years are in 36 months.

Evaluation

An activity from teacher's own collection

Lesson 10

Topic

Measures

Subtopic

Completing tables about months and years

content

Example

Complete the table below

Years	1	2	3	4	……..
Months	12	24	36	…….	60

2 x 12 = 24 months

36 ÷ 12 = 3 years

Evaluation

An activity from MK bk3 pg139

Lesson 11

Topic

Measures

Subtopic

How old: (Finding one's age)

content

Example

Mike was born in 1989. How old was he in 1997?

1997

-1989

0008 years

Mike was 8 years old

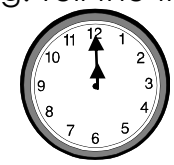
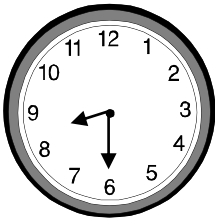
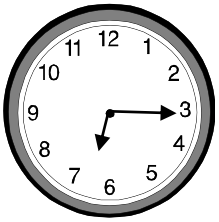
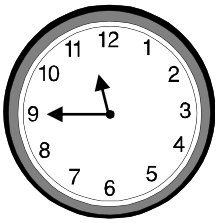
Evaluation

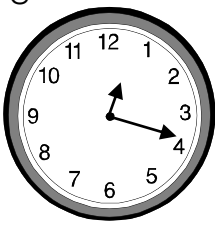
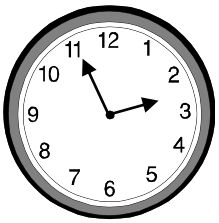
An activity from MK bk3 pg140

Lesson 13

Topic

Measures

Subtopic content **Evaluation**	Telling time Telling time in hours Eg. Tell the time  It is 12 o'clock 01 12:00 MK bk 3 pg 127
Topic Subtopic content **Evaluation**	**Lesson 14** Telling time Telling time in a half past e.g. tell the time  It is a half 8 o'clock or 8:30 MK bk 3 pg 129
Topic Subtopic content **Evaluation**	**Lesson 15** Telling time Telling time using a quarter past e.g. tell the time  it is a quarter past 7 o'clock or 7:15 MK bk 3 pg 128-129
Topic Subtopic content **Evaluation**	**Lesson 16** Telling time Telling time using a quarter to e.g. tell the time  it is a quarter to 12 o'clock or 11?45 MK bk 3 pg 132
Topic Subtopic	**Lesson 17** Measures Telling time

content **Evaluation**	Telling time in minutes past e.g. it is 20 minutes past 12 o'clock  MK 2000 bk 3 pg 133-134
Topic Subtopic content **Evaluation**	**Lesson 18** Measures Telling time Telling time in minutes to e.g. it is 5 minutes to 3 o'clock or 2:55  MK 2000 MTC bk 3 pg 136-137
Topic Subtopic content **Evaluation**	**Lesson 19** Telling time Word problem e.g change 2 hours to minutes 2 hours = minutes 1hour = 60 minutes 1 hour = 60minutes or 2 hours = 60 x 2 = 120 minutes 2 hours = 60 x 2 60 X2 120 Convert 3 hours to minutes Change 4 hours to minutes How many minutes are there in 5 hours?
Topic Subtopic content	**Lesson 20** Telling time Word problem Changing from minutes to hours e.g. convert 120 minutes to hours 120 minutes = hours 60 minutes = 1 hour 120 minutes = 120 ÷ 60 120 = 2hours

	60
Evaluation	Change 360 minutes to hours Convert 120 minutes to hours
Topic Subtopic content	**Lesson 21** Measures Drawing and showing on a clock face Represent e.g. a half past 3 o'clock a quarter to 8 o'clock a quarter past 2 o'clock
Evaluation	MK 2000 MTC bk 3 pg 137
Topic Subtopic content	**Lesson 22** **Measures** **Money** **Recognition of money** <u>Notes</u> <u>Coins**</u> 1000 note 50 coin 50,000 note 100 coins 5000 note 200 coins 10000 note 500 coins 20000 note Addition of money (1) (2) Shs 200 shs 1000 + shs 500 + shs 100 <u>Shs 50</u> shs 1000 <u>Shs 250</u> shs 500 <u>+ shs 100</u> <u>Shs 1600</u>
Evaluation	An activity from MK bk3 pg176 and 178
Topic Subtopic content	**Lesson 23** **Measures** **Money** **Addition of money (word problems)** Examples I had 100 shillings. My father gave me 50 shillings more. How much money do I have altogether? I had 100 shillings Father gave me + <u>50 shillings</u> I have <u>150 shillings</u>
Evaluation	Mk bk3 pg178
Topic	**Lesson 24** **Measures**

<table>
<tr>
<td>Subtopic content

Evaluation</td>
<td>Money
Subtraction of money (word problems)
Example
Mukooza had shs 350. He gave away shs 100. How much money did he remain with?
Shs 350
- shs 100
Shs 250

Mk bk3 pg180</td>
</tr>
<tr>
<td>Topic
Subtopic content

Evaluation</td>
<td>Lesson 25
Measures
Money
Shopping
Example
The table below shows the price list in Mrs. Yiga's shop. Use it to answer the questions that follow
<table>
<tr><th>Item</th><th>Price</th></tr>
<tr><td>A book</td><td>shs 100</td></tr>
<tr><td>A pencil</td><td>shs 250</td></tr>
<tr><td>An egg</td><td>shs 300</td></tr>
<tr><td>A bar of soap</td><td>shs 500</td></tr>
<tr><td>A kg of rice</td><td>shs 800</td></tr>
<tr><td>A pen</td><td>shs 200</td></tr>
</table>
Questions
a) How much does a pencil cost?
b) What is the cost of an egg and a pen?

Mk bk3 pg181</td>
</tr>
<tr>
<td>Topic
Subtopic content</td>
<td>Lesson 26
Topic: Measures
Subtopic: Money
Content: Shopping with pictorial
Example
A bag an apple A pencil a book</td>
</tr>
</table>

Evaluation

 Shs 500  shs 800  shs 100  shs 300

a) What is the cost of 2 pencils?
Shs 100 x 2 = shs 200

b) What is the cost of 3 bags and 2 books?
Bags = 3 x 500 = shs 1500
Books = 2 x 300 = + shs 600
Shs 2100

From understanding mathematics bk 3 pg 73.

Topic
Subtopic
content

Lesson 27
Measures
Money
Division of money
Examples
Divide shs 1200 by 3

$$3\overline{)1200} = 0400$$

$\therefore$ shs 1200 ÷ 3 = shs 400

0 x 3 = 0
12
4 x 3 = 12
00

Evaluation

MK bk3 pg187

Topic
Subtopic
content

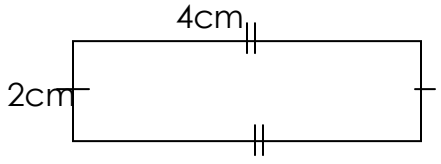
Lesson 28
Measures
Money
Word problems involving division of money
Example
Mr. Kasule had shs 800. He shared it equally between his two children. How much did each child get?

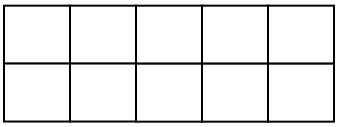
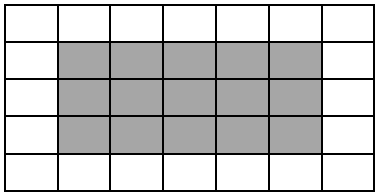
$$2\overline{)800} = 400$$

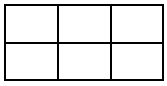
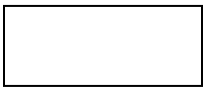
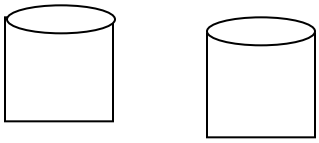
4 x2 = 8
000
2 x 0 = 00
00

Evaluation

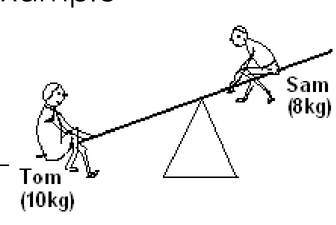
	∴ Each child gets shs 400 Mk bk3 og187
Topic Subtopic Content Evaluation	**Lesson 29** Measures Length Units for length e.g centimeter , metres, decimeter, hectometers , kilograms changing from metres to centimeter e.g. convert 3 metres to centimeters 3m = cm 1m = 100cm 3m = 100 100 +100 300cm Activity in MK 2000 Mtc bk 3
Topic Subtopic Content Evaluation	**Lesson 30** Measures Changing from centimeters to metre Example Change 200cm to metres 100cm = 1 m 200cm = $\frac{200cm}{100}$ = 2metres Activity MK bk 3
Topic Subtopic Content Evaluation	**Lesson 31** Measures Addition of metres and centimeters Examples Add; M cm 2 45 + 6 36 8 81 Activity in Mk 2000 Mtc bk 3 pg 14
Topic Subtopic Content	**Lesson 32** Measures Word problem involving addition of metres and centimeters Example; A shopkeeper has 2m 38cm of nylon cloth and 6m 30cm of cotton cloth. What is the total length of the pieces of cloth. M cm

	4 38 + 6 30 10 68
Evaluation	Activity in MK 2000 bk 3 pg 148
	Lesson 33
Topic	Measures
Subtopic	Subtraction of metres and centimeters
Content	Example M cm 6 50 - 4 30 2 20
Evaluation	Activity Mk 2000 MTC bk 3 pg 149
	Lesson 34
Topic	Measures
Subtopic	Word problem involving subtraction of metres and centimeters
Content	Example Musa had a string of 8m 47cm. he cut off 2m 16cm. what length of the string was left? M cm 8 47 - 2 16 6 31
Evaluation	Activity in Mk bk 3 pg 150
	Lesson 35
Topic	Measures
Subtopic	Finding perimeters
Content	Perimeter Definition: perimeter is the total distance around any give figure Example Find the perimeter of the figure below  P = s+s+s+s
Evaluation	4cm +2cm+4cm+2cm

	6cm +6cm =12cm Activity in MK bk 3
Topic Subtopic Content Evaluation	**Lesson 36** Measures Word problems involving finding perimeter of a shape Example A square garden measures 12m each side. Find its perimeter 12m 12m 12m 12m P= s+s+s+s = 12m+12m+12m+12m = 24m + 24m = 24m + 24m 48m Activity in MK MTC bk 3
Topic Subtopic Content Evaluation	**Lesson 37** Measures Finding area Example ; counting squares  Area = number of square units 12sq units. Activity in MK MTC bk 3 pg 152
Topic Subtopic Content	**Lesson 38** Measures Finding area of the shaded part Example; area = number of sq units = 15 sq. units 

Evaluation	Activity in MK MTC bk 3 pg 155
Topic Subtopic Content Evaluation	**Lesson 39** Measures Finding the area by multiplying Example; area = number of sq. units = (3 squares across)x(2sqaures down) = 3 x 2 = 6 squares units or 6 sq. units  Example 2; area = length x width 8cm 8cm x 3cm $24cm^2$ or 24 sq. centimeters  3cm Activity in MK bk 3 pg 155-156
Topic Subtopic Content Evaluation	**Lesson 40** Measures Word problem involving finding area Example Mary's note book is 4cm long and 3cm wide Find its area 4cm area = L x W = 4cm x 3cm  3cm = $12cm^2$ Activity in Mk MTC bk 3 pg 157-158
Topic Subtopic Content Evaluation	**Lesson 41** Capacity Energy in our sub county Example: How many ½ litres make a litre.  ½ litre + ½ litre = 1 litre Therefore, 1 litre = 2 halves New MK bk 3 pg 161
Topic Subtopic	**Lesson 42** Capacity Changing litres to centilitres

Content Evaluation	1 litre = 100cl 3 litres = (3x100)cl 3litres = 300cl Teachers collection
 Topic Subtopic Content Evaluation	**Lesson 43** Capacity Changing centiliters to litres Example: How many litres are in 500cl? 1 litre = 100cl ? = 500cl $\frac{500cl}{100cl}$ litres = 5 litres Teacher's collection
 Topic Subtopic Content Evaluation	**Lesson 44** Capacity Adding litres and centiliters Example; Add; 1 5 0 litres + 3 5 0 litres 5 0 0 litres Example 2 Add; Litres centiliters 3 25 +2 60 5 85 Teachers' collection
 Topic Subtopic Content Evaluation	**Lesson 45** Capacity Word problem involving addition of litres. Mr. Lubega made 24 litres of juice and Kato made 78 litres. How much juice did the two men make? 2 4 litres +7 8 litres 10 2 litres Therefore, they made 102 litres of juice New MK nk 3 pg 163
	Lesson 46

Topic	Capacity
Subtopic	Subtraction of ltires and centiliters
Content	Example:
	2 4 7 litres
	- 2 5 litres
	2 2 2 litres
Evaluation	
	Lesson 47
Topic	Measures
Subtopic	Weight
Content	Definition : weight is the lightness or heaviness of an object.
	Units measuring weight
	Examples
	Kilograms
	Grams
	Hectogram
	Changing kilogram to grams
	Example
	Change 3kg to grams
	1kg = 1000g 1kg = 1000g
	3kg = 1000g 3kg = 1000g
	1000g x 3
	1000g 3000g
	+ 3000g
Evaluation	Activity in MK MTc bk 4
	Lesson 48
Topic	Measures
Subtopic	Weight
Content	Changing from grams to kilograms
	Example
	Change 2000g to kilograms
	1000g = 1kg
Evaluation	2000g = $\left(\frac{2000g}{1000g}\right)$ kg = 2kg
	Lesson 49
Topic	Measures
Subtopic	Weight
Content	Comparing weight
	Who is heavier?
	Example
	

Evaluation	Activity in MK MTC bk 3 pg 168
	Lesson 50
Topic	Measures
Subtopic	Weight
Content	Addition of kilograms and grams Example Kg g 4 250 +2 300 6 550
Evaluation	Activity in MK bk 3 pg 171
	Lesson 51
Topic	Measures
Subtopic	Weight
Content	Word problem involving addition of kilograms and grams Example Kato weighs 17kg 280 g. his sister weighs 20kg 250g. find their total weight. Kg g 17 280 +20 250 37 530
Evaluation	Activity in MK bk 3 pg 172
	Lesson 52
Topic	Measures
Subtopic	Weight
Content	Subtraction of kilograms and grams Example Kg g 9 650 -7 200 2 450
Evaluation	Activity in Mk bk 3 pg 173
	Lesson 53
Topic	Measures
Subtopic	Weight
Content	Word problems involving subtraction of kilograms and grams Example Akot had 5kg 750g of salt. She gave 3kg 250g to her friend. How much salt was left?

	Kg g 5 750 -3 250 2 500
Evaluation	Activity in Mk bk 3 pg 174
	Lesson 54
Topic	Algebra
Subtopic	Finding missing numbers
Content	Example □ + 3 = 8 □ + 3 – 3 = 8 – 3 □ + 0 = 5 = 5
Evaluation	Activity Mk bk 3 pg 192
	Lesson 55
Topic	Algebra
Subtopic	Word problems involving algebra
Content	Example Nakito had some books. She was given 12 more books. Now she has 20 books. How many books had Nakito had at first? □ + 12= 20 + 12 – 12 = 20 – 12 + 0 = 8 = 8 Nakito had 8 books first
Evaluation	Activity MK bk 3 pg 192
	Lesson 56
Topic	Algebra
Subtopic	Finding unknowns involving subtraction
Content	Example M – 5 = 3 M – 5+5= 3+5 M – 0 = 8 M = 8
Evaluation	Activity in Mk mtc bk 3 p 194
	Lesson 57
Topic	Algebra
Subtopic	Word problems involving subtraction of unknowns
Content	Example

□

□

	Father had some mangoes. He gave 5 mangoes to his son. He remained with 7 mangoes. How many mangoes did he have at first? □ -5 = 7 - 5+5= 7+5 - 0 = 12 = 12 He had 12 mangoes at first.
Evaluation	Activity in Mk mtc bk 3 pg 194
	Lesson 58
Topic	Algebra
Subtopic	Finding missing numbers in multiplication
Content	Example X 2 = 10 □ x 2÷2= 10÷2 □ x 1 = 5 = 5
Evaluation	Activity in MK bk 3 pg 196
	Lesson 59
Topic	Algebra
Subtopic	Finding missing numbers involving division
Content	Example 6 ÷ □=3 □= 6÷3 □= 2
Evaluation	Activity in Mk mtc bk 3 pg 197
	Lesson 60
Topic	Algebra
Subtopic	Word problems involving finding missing numbers with division
Content	Example Auma had some bananas. He shared them among 6 boys. Each boy got 8 bananas. How many bananas had Auma had before? □ ÷ 6 = 8 □ =8x6 □ =48 Auma had 48 bananas before
Evaluation	Activity in Mk mtc bk 3 pg 198
	Lesson 61
Topic	Algebra

Subtopic	Collecting like terms
Content	Example Collect like terms 3 cups + 2 books + 4 cups + 3 books 3cups + 4 cups + 2 books + 3 books 7 cups + 5 books
Evaluation	Activity in MK mtc bk 4