P.5 MATHEMATICS SCHEME TERM III

WK	PD	THEME	TOPIC	SUB TOPIC	COMPETENCES		CONTENT	METHOD	ACTIVITY	L/SKILLS	REF	T/L AIDS
					Subject	Language						
1	1	Measurements	Money	Simple rates	The learner solves practical problems related to buying and selling	The learner; Reads, pronounces, spells and writes the words such as; Currency Rates Cents Shillings correctly Role plays buying and selling	Examples A book costs shs. 500. What is the cost of 3 similar books? 1 book costs sh. 500. 3 books cost sh. 500 x 3 Sh. 500 X 3 Sh. 1500 5 books cost sh. 2000. Find the cost of one book 5 books cost sh. 2000 400 1 book costs ~~sh.~~ 2000 5 Sh. 400 1 book costs sh. 400 answer	Guided discovery Question and answer Role play	Role playing buying and selling Interpreting the question	Fluency Confidence Critical thinking	Real objects like coins and paper notes , Books Text books Pens	MK Primary Maths books page 238 and Essential Ug. Primary Maths book 5 page 140-141
	2	Measurements	Money	More about simple rates	The learner Interprets the questions given correctly Solves practical problems related to buying and selling	The learner; Reads, spells, pronounces and writes words correctly Such as; -cost -sells -rates -bought	More about simple rates Examples The cost 6 cups is sh. 1200. Find the cost of 10 similar cups 6 cups – sh. 1200 1 cup – sh. 1200 6 2 10 cups – ~~sh.~~ 1200 x 10 6 1 Sh. 200 x 10 Sh. 2000 3 pencils cost sh. 450. How many penils can Abey buy with sh. 4500?	Guided discovery Question and answer Role play	Interpreting the questions Solving problems related to buying and selling	Neatness Fluency Critical thinking		MK book 5 page 239 EssentialUg. Primary MTC 5 page 141

<table>
<tr>
<td></td>
<td>3</td>
<td>Measurements</td>
<td>Money</td>
<td>Shopping list</td>
<td>The learner;
Interprets the questions given correctly

Works out the amount for each item

Finds the total expenditure correctly</td>
<td>The learner;
Reads, spells, pronounces and uses the words like change, expense, each, per amount in the sentences correctly</td>
<td>Shopping bills and change

Examples

A man had sh. 50,000, he bought 2kg of sugar at sh. 1200 per kilo, 3 bars of soap at 4000 a bar. How much change did he have?

<table>
<tr><th>Sugar</th><th>Soap</th><th>Total</th></tr>
<tr><td>Sh.1200

X 2
Sh. 2400</td><td>Sh. 4000

X 3
12000</td><td>Sh. 12000

Sh. 2400
Sh. 14400</td></tr>
</table>

Change

Sh. 50000
-sh. 14400
Sh. 35600</td>
<td>Guided discovery

Question and answer</td>
<td>Interpreting the questions

Working out the amount for each item and the total</td>
<td>Accuracy

Neatness

Fluency

Articulation of words

Patience</td>
<td>Balance beam

Spring balance

Weighing scale

Window or kitchen scale</td>
<td>Mk pupils book 5 page 240 , MK pupils book 4 page 177 and Fountain book 4 page 172</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Measurements</td>
<td>Money</td>
<td>Completing the bill</td>
<td>The learner;
Interprets the question correctly

Draws the bill tables correctly

Completes by fill in the table correctly</td>
<td>The learner;
Reads, spells, pronounces and writes the words like quantity, unit, cost, item correctly</td>
<td>Completing the tables

A mother gave the shopping list below to her child. Study it and complete

<table>
<tr><th>Item</th><th>Quantity</th><th>Unit</th><th>Total</th></tr>
<tr><td>Blue band

Bread

Tea leaves

Sugar</td><td>½

3 loaves

1/4kg

4kg</td><td>Sh. 4600

Sh. 800

Sh. 6000

Sh. 1200</td><td>Sh. 2300

Sh. 2400

Sh. 1500

Sh. 4800</td></tr>
<tr><td>Total</td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><th>Total</th><th>Unit cost</th></tr>
<tr><td>Q x U.C

2300

$\frac{1}{\cancel{2}}$ x 4600

Sh. 2300</td><td>T – Q

$\frac{2400}{3}$

= 800</td></tr>
</table></td>
<td>Guided discovery

Explanation

Question and answer</td>
<td>Interpreting the question

Drawing the table

Working out and filling the table</td>
<td>Accuracy

Neatness

Fluency

Articulation of words

Patience</td>
<td>Balance beam

Spring balance

Weighing scale

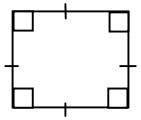
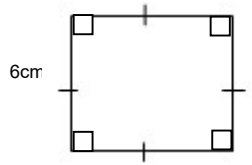
Window or kitchen scale</td>
<td>EssentialUg. Primary Mathematics book 5 page 141</td>
</tr>
</table>

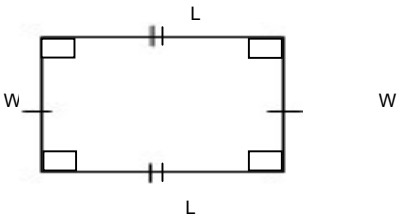
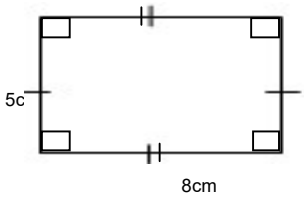
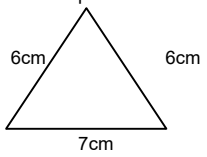
	5	Measurements	Money	Profit	The learner; Describes how profit is made well. Applies and uses the formula for profits correctly	The learner; Reads, spells, pronounces the words like profit, gain, increase, more, high and increment correctly Defines the term profit using simple language	Finding profit Examples Abdul bought a shirt at sh. 3000 and sold it at sh. 3200. What was his profit? SP = sh. 3200 C.P = sh. 3000 Profit = S.P – C.P Sh. 3200 <u>Sh. 3000</u> <u>Sh. 200</u> Profit = sh. 200 The marked price of a sofa set is sh. 450,000. If it was sold ast sh. 550,000, how much was the profit?	Guided discovery Question and answer Explanation	Interpreting the questions Applying and using the suitable formulae for profit	Confidence Appreciation Love Neatness Care Fluency	Text books Tomatoes Sugarcane Money	MK Pupils book 5 page 245, MK pupils book 4 page 143 and Essential Ug. Primary MTC book 5 page 144
	6	Measurements	Money	Profit selling price and buying price	The learner; Interprets the questions correctly States or applies the formulae correctly	The learner; Reads, pronounes, spells the key words like selling price, buying price, profit, gains, old/ new price correctly	Finding the selling price or buying price when profit is given Profit = S.P – C.P SP = P + C.P C.P / B.F = SP = Profit Annet bought a tin of orange at sh. 14000. He sold oranges and made a profit of sh. 4000. At what price did he sel the oranges? SP = CP + P Sh. 14000 + sh. 4000 = sh. 18000	Guided discovery Explanation	Interpreting the question Stating the formulae Applying the suitable formulae for working out the number	Confidence Appreciation Love Neatness Care Fluency	Text books Tomatoes Sugarcane Money	New MK pupils book 5 149, MK pupils book 247 and Essential U. Primary book 5 page 145
	7	Measurements	Money	Loss	The learner; Describes how a loss is made in the business Interprets the questions correctly Applies and uses the formulae for loss correctly	The learner; Reads, spells, pronounces and writes words like loss, decrease, depreciate, loss, reduce and discount correctly Defines a loss using simple language Role plays loss in business	Loss It is when the cost price of an item is higher than its selling price Hence, loss = C.P – S.P Example Jagwe bought a goat at sh. 120,000. He sold it to Deo at sh. 105,000. What was his loss? C.P = sh. 120,000 S.P = sh. 105,000 Sh. 120,000 Sh. 105,000 Jagwe made a loss of sh. 15,000	Guided discovery Role playing Explanation	Role playing a feel for a loss in business Describing how a loss is made Applying and using of formulae for a loss	Critical thinking Patience Fluency Confidence Articulation	Text books Money notes	MK pupils books page 247 and Essential Ug. Primary MTC book 5 page 145

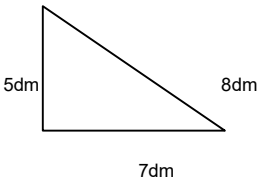
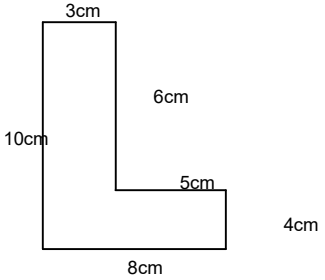
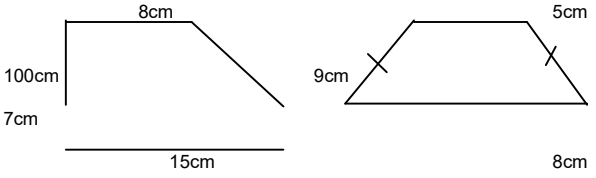
2	1	Measurements	Money	Loss , C.P and S.P	The learner; Interprets the questions correctly States and applies of uses the formulae correctly	The learner; Reads, spells, pronounces and writes words in the sentences correctly	Finding the cost price or selling price when one and loss are given Loss = C.P – S.P Cost Price = Losts + S.P Selling price = Cost price - Lose Examples Kizito bought a ball at sh. 15,000, he sold it and made a loss of sh. 3000. What was the selling price of the ball? S.P = C.P – Loss =sh. 15,000 – sh. 3,000 = sh. 12,000 Kizito sold the ball at sh. 12,000	Guided discovery Questions and answer technique	Interpreting the question Stating the formulae Solving problem that involve loss, cost price and selling price	Text books Confidence Critical thinking Appreciation	Text books Money notes	New MK pupils book 5 page 150 and Essential Ug. Primary MTC book 5 page 145
	2	Measurements	Money	Loss, cost price and selling price	The learner; Interprets the questions correctly Applies and uses the formulae of finding cost price correctly	The learner; Reads, spells, pronounces and writes words in the sentences correctly	Finding the cost price when Loss is given C.P = Loss + Seling price C.P = L + S.P Examples Oketch sold a goat at sh. 15,000. If he made a loss of sh. 3,000, how much did he buy the goat? C.P = ?? L = sh. 3000 S.P = sh. 15000 sh. 3000 sh. 18000 Oketch bought the goat at sh. 18000	Guided discovery Questions and answer technique	Interpreting the questions Stating the steps Finding the total cost	Effective communication Critical thinking Appreciation	Text books Money notes Real objects like books sets	New MK pupils book 5 page 150 and Essential Ug. Primary MTC 5 page 145
	3	Measurements	Money	Calculating the total cost	The learner; Interprets the question correctly States the steps on how to find the total cost correctly Finds the total cost	The learner; Reads and interprets the words in the sentences correctly	Calculating the total cost John went to the market and bought a box of soap at sh. 240,000. He used sh. 50,000 for transport and gave sh. 2000 to a porter who carried the box. Find how much was spent on soap. Buying price = sh. 240,000 Transprt = sh. 50,000 Labour = sh. 2,000 Sh. 292,000	Guided discovery Questions and answer technique	Calculating the total cost	Logical reasoning	Text books Money notes	New MK pupils book 5 page 153
	4	Measurements	Money	Pricing and fare	The learner; Interprets the questions correctly Summarizes and finds the amount asked correctly	The learner; Reads, spells, pronounces the words correctly Interprets the meaning of words like fare, couple and to and fro	Pricing Example John went to town and bought a box of book containing 144 booksd at sh. 92000. He used sh. 3500 for transport and paid sh. 2000 to the porter who helped him. If he wants to get a profit of sh. 3300 after selling the books, how	Guided discovery Explanation Open discussion	Interpreting the question Finding the total cost	Critical thinking Logical thinking Audibility	Text books	New MK pupils books page 154 - 155

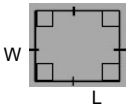
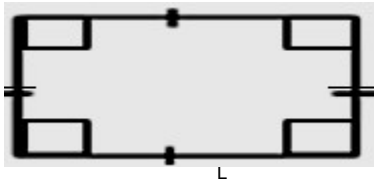
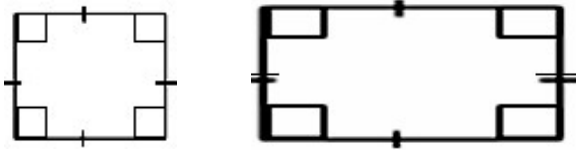
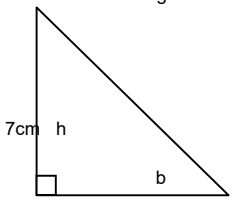
						correctly	much should he sell each book? Books = sh. 92,000 Transport = sh. 3,500 Labour = sh. 2,000 Profit = sh. 3,300 Total = sh. 100,800 700 Amount for each book 100800 144 1 He should sell each book at sh. 700. A man, a wife and their two children travelled to the village. If the fare for each adult is sh.2,500 and each child pays sh. 1000, how much did the conductor collect from the family?			Confidence Fluency Clarity		
	5	Measurements	Length	Measuring length	The learner; Handles the tools correctly Measures the length of different objects correctly Analyses the recorded information	The learner; Reads, spells, pronounces and writes words like length, centimeters, metre, ruler, width, breadth and height correctly	Length It is the distance between two points apart. Length / distance can be measured in cm, m, mm, km e.t.c Measuring the length of the following - Table - Desk - Chalkboard - School gate / perimeter fence - Lines - Books	Excursion Guided discovery	Measuring the length of different objects Recording information Analyzing information	Fluency Articulation Critical thinking Accuracy	Rulers Strings Papers Tape measures Ropes	Essential Ug. Primary MTC book 5 page 150
	6	Measurements	Length	Conversion of metric units	The learner; Converts to different units correctly	The learner; Reads, spells, pronounces and writes words like millimeters, centimeters, convert and express correctly	Expressing centimetres to milimetres and vice versa Km Hm Dm M dm Cm mm 1cm = 100mm 10mm = 1cm 1mm = $\frac{1}{10}$ cm Change 2cm to millimetres 1cm = 10mm 2cm = (2x10)mm = 20mm	Explanation Guided discovery Question and answer	Converting to centimeters from millimeters and vice versa	Neatness Accuracy Fluency Audibility	Rulers Charts showing the conversion of units Cm – mm Text books	Essential Primary MTC 5 bape 148 and New MK book 5 page 157

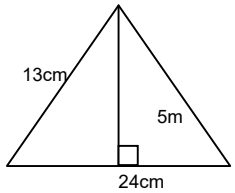
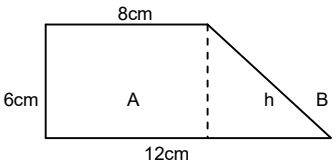
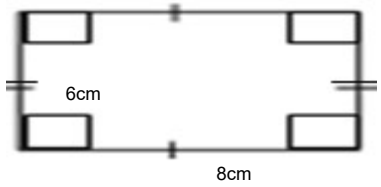
							Change 50mm in centimetres 1mm = $\frac{1}{10}$ cm 50mm = ($\frac{1}{10}$ x 50) cm = 5cm Change the following to mm a) 5mm b) 20cm c) 2 ½ cm Change 500mm to cm					
	7	Measurements	Length	Conversion of units	The learner; Converts to different units correctly	The learner; Reads, spells, pronounces and writes words like metre, centimeter, express, milimetres correctly Constructs sentences using the above words correctly	Expressing metres to centimetres, decimetres, millimetres and vice versa Km Hm Dm M dm Cm mm 1m = 10dm 1m = 100cm 1m = 1000m 1dm - $\frac{1}{10}$ m 1cm = $\frac{1}{100}$ m 1mm = $\frac{1}{1000}$ m	Explanation Group work (discussion) Guided discovery	Converting to different units (m ___cm) (m____mm) (cm____m) (mm____m)	Neatness Patience Fluency Accuracy	A chart showing metric system or units Text books	New MK pupils book 5 page 158 and Ess3eential Primary MTC book 5 page 151
3	1	Measurements	Length	Conversion of units	The learner; Converts from one unit to another correctly	The learner; Reads, spells, pronounces and writes words like kilometre, metres correctly Construct sentences using the above words correctly	Expressing kilometres to metres and vice versa Km Hm Dm M dm Cm mm 1 0 0 0 1km = 1000m 1m = $\frac{1}{1000}$ km	Explanation Group work (discussion) Guided discovery	Converting kilometers to metres and vice versa	Neatness Patience Fluency Accuracy	Text books Chart showing metric units Text books	New MK pupils book 5 page 158 and Ess3eential Primary MTC book 5 page 151

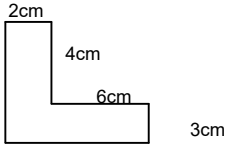
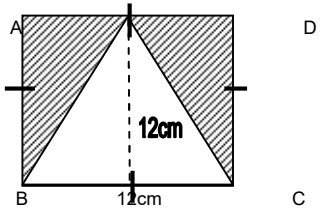
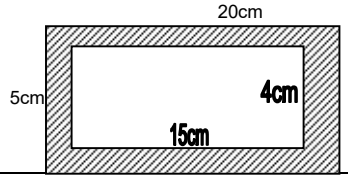
							Change 5km to metres 1km = 1000metres 5km = (5x1000)metres = 5000 metres Convert 25000m to kilometres 1m = $\frac{1}{1000}$ km 25000m = ($\frac{1}{1000}$ x 25000)km =25km Convert 2.5km to metres Change 350m to km					
	2	Measurements	Length	Perimeter	The learner; Describes how to find the perimeter of the square Applies and uses the formulae of finding the perimeter correctly	The learner; Reads, spells, pronounces and writes words like perimeter, distance, metres and centimeters correctly	Perimeter This is the total distance around the given figure / shape Finding the perimeter of a square  S P = S + S + S + S = 4S Thus, P = Add all the sides a figure has Find the perimeter of the square below  6cm P = S + S + S + S = 6cm + 6cm + 6cm + 6cm = 12cm + 12cm = 24cm	Guided discovery Question and answer Demonstration	Describing the total distance or perimeter Stating and using the formulae for perimeter Spelling words	Fluency Audibility Confidence Neatness	Cut outs of shapes Squared faces Text book	Essential Ug. Primary MTC 5 page 151 and New MK pupils book 5 page 160

	3	Measurements	Length	Perimeter	The learner; Draws the rectangular shapes correctly Uses the formulae for perimeter correctly	The learner; Reads, spells, pronounces and writes neatly the words correctly Describes clearly how to find the perimeter of a rectangle using simple language	Perimeter of a rectangle  P = L + W + L + W P = 2L + 2W P = 2(L + W) Find the perimeter of a rectangle below  P = 8cm + 5cm + 8cm + 5cm = 13cm + 13cm = 26cm Or P = 2 (L + w) = 2 (8cm + 5cm) = 2 x 13cm = 26cm	Explanation Guided discovery	Describing the total distance or perimeter Stating and using the formulae for perimeter Spelling words	Fluency Audibility Confidence Neatness	Rectangular shapes Cut outs Text books	Essential Ug. Primary MTC book 5 page 152 – 153 and New MK pupils book 5 page 158
	4	Measurements	Length	Perimeter	The learner; Identifies the given shape correctly Finds the distance around that shape correctly	The learner; Reads, spells, pronounces and writes words like triangle, triangular, perimeter correctly	Find the perimeter of a triangle  Perimeter (6 + 6 + 7dm 12cm + 7cm	Guided discovery Group work	Finding the perimeter of the triangle	Confidence Fluency Neatness	Cutouts Triangles Triangular shapes	New MK books page 161 and Essential Ug. Primary MTC book 5 page 154

							19cm  P = S + S + S P = 5dm + 7dm + 7dm = 15dm + 5dm P = 20dm Find the distance around a triangular garden whose sides are 21m, 25m and 30m.					
	5	Measurements	Length	Perimeter	The learner; Counts the number of sides a jointed figure has correctly Adds the length of each side accurately to find the perimeter	The learner; Interprets the questions correctly Recognizes the shapes given	Perimeter of combined shapes  Perimeter = Add all sides = 10cm + 3cm + 6m + 5cm + 4cm + 8cm =19cm + 17cm = 36cm Workout the perimeter of the shapes below  	Explanation Guided discovery Question and answer	Counting the number of sides a figure has Working out the total distance	Confidence Fluency Neatness	Cut outs Chart showing shapes	New MK books page 161 and Essential Ug. Primary MTC book 5 page 154

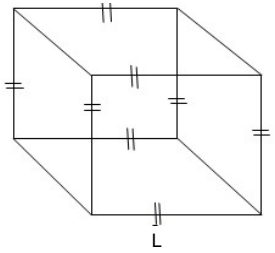
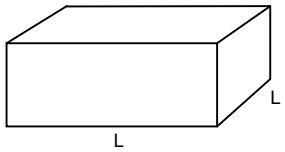
	6	Measurements	Length	Area	The learner; Identifies the shape given Applies and uses the formulae of finding area correctly Uses correct units of area Draws the shape well	The learner; Reads, spells, pronounces and writes words like area, covered, square, rectangle and units correctly	Areas of a square and rectangle Area is the speace covered by an object It is measured in squared units  Area of  = L x L  Area of  = L x W Examples Find the area of the figure below  	Guided discovery Explanation Question and answer Group discussion	Identifying the shapes Applying the formulae for area on each shape Calculating the area	Neatness Love Appreciation Fluency Articulation	Cut outs of shapes Chart showing Shapes	New MK pupils book 5 page 163 and essential Ug. Primary MTC book 5 pages 157 – 158
	7	Measurements	Length	Area	The learner; Recognizes and draws the shape correctly Applies and uses the formulae correctly Uses correct units	The learner; Reads, spells, pronounces and writes words like triangle, half, base, height, breadth, perpendicular and right angle correctly	Area of a triangle Example Find the area of triangle below  	Group work Explanation Question and answer	Naming the shapes Spelling words Stating the formulae of working out the area	Neatness Love Appreciation Fluency Articulation	Cut outs of shapes Chart showing Shapes	New MK pupils book 5 page 164 and Essential Ug. Primary MTC book 5 pages 158 – 159

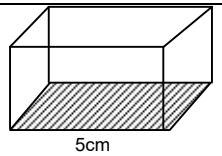
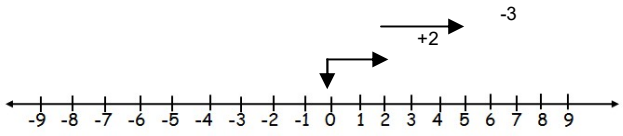
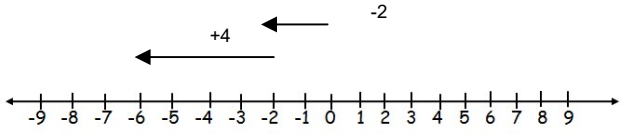
							Area = ½ x b x h = ½ x 10cm x 7cm =5cm x 7cm =35cm2  A = ½ x b x h ½ x 24cm x 5cm 12cm x 5cm 60cm^2. The base of a triangle is 10cm audits heaight is 8cm. Find its area.					
4	1	Measurements	Length	Area	The learner; Draws the jointed figure correctly Divides the jointed figures into parts correctly Finds the area of parts and total correctly	The learner; Reads the names of the figures correctly Recognizes the shapes and writes the names correctly	Area of combined shape Examples  	Explanation Guided discovery Question and answer	Identifying the parts of the jointed figure Cutting the jointed figure into parts Finding the area of each part and the total area	Patience Love Care Fluency Accuracy	Cutouts Real objects like squares, triangles and rectangles	MK pupils book page 164 to 165
	2	Measurements	Length	Area	The learner; Recognizes the shapes given correctly Applies and uses the suitable formulae correctly	The learner; Reads, spells, pronounces and writes words like shaded, unshaded, difference and whole correctly	 Area = L x W 8cm x 6cm 48cm^2	Guided discussion Explanation Question and answer	Finding the are of the whole figure un shaded and shaded	Neatness Care Love Appreciation Confidence Accuracy	Tables Clothes Boxes Manillars	MK pupils book 5 pages 166 – 167

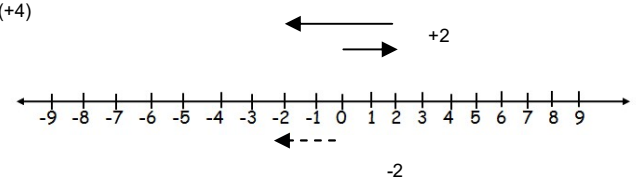
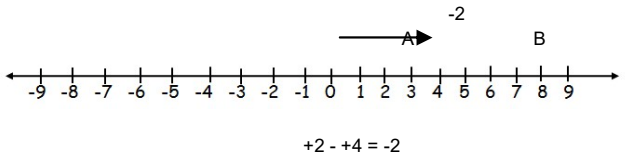
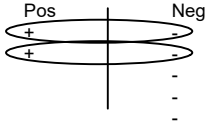
							6cm □ 4cm Area = ½ x b x h ½ x 4cm^2 x 6cm 2cm x 6cm =12cm^2.  Area of A and B = 48cm^2 + 12cm^2 = 60cm^2.					
	3	Measurements	Mass	Changing kilograms to grams	The learner; Measures the weights correctly Records the weights correctly Converts the units kg to g correctly	The learner; Reads, spells, pronounces and writes words like kilograms and grams correctly Recites the nymoniccorrectly Uses the words in sentences correctly	Finding the area of the shaded part  Area of ABCD = 5 x 5 12cm x 12cm = 144cm^2 Area of the triangle ½ x 12cm x 12cm 6cm x 12cm 72cm^2 Workout the area of the shaded part  	Question and answer Guided discovery Explanation	Weighing Recording Converting kilograms to gramms	Love Critical thinking Fluency Patience Accuracy	Balance beam Spring balance Papers Chart showing conversion of grams to kilograms	New MK pupils book 5

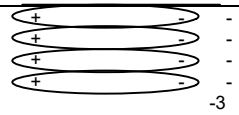
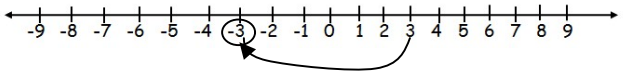
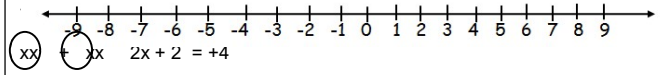
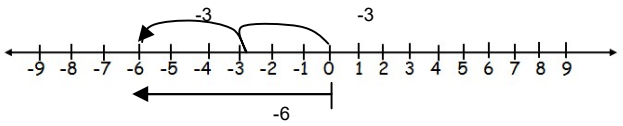
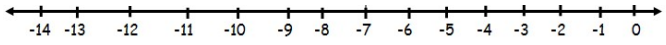
	4	Measurements	Mass	Changing kilograms to grams	The learner; Recites the numeric of conversion correctly	The learner; Recites the numeric of conversion correctly	Changing kilograms to grams Kg Hg Dg G dg Cg Mg 1kg = 1000g Change 3kg to grams 1kg = 1000g 3kg = 3 x 1000g = 3000g Convert 1 ¼ kg to grams 1kg = 000g 1 ¼ kg = 1 ¼ x 100g $= \frac{5}{4}$ x 1000g = 5 x 250 = 1250 What is 25kg in grams	Explanation Guided discovery Group work	Reciting the nymonic Kg Hg Dg G dg Cg Mg Converting grams to kilograms	Fluency Audibility	Chart showing the conversion of grams to kilograms	New MK pupils books
	5	Measurements	Capacity	Conversion of units	The learner; Measures to find the capacity of different objects Converts litres to milliliters correctly	The learner; Reads, spells, pronounces and writes words like litre, capacity, milliliters and half correctly	Changing grams to kilograms 1000g = 1kg 1g = $\frac{1}{1000}$ kg Convert 6000g to kg 1g = $\frac{1}{1000}$ kg 6000g = $\frac{6000}{1000}$ kg = 6kg Change 750g to kilograms	Guided discovery Explanation Question and answer	Measuring using real objects converting litres to mililitres	Accuracy Confidence Love Appreciation	Cups Bottles Jerrycan Water	New MK pupils book 5 page 167

							1g = $\frac{1}{1000}$ kg 750g = $\frac{750}{1000}$ kg $\frac{75}{100}$ =0.75kg Change 2500g to kilograms Note: A tonne = 1000kg Conversion of litres to ml. Note: 1 litre = 1000 ml Examples Convert 2litres to ml 1 litre = 1000ml 2 litres = 2 x 1000ml = 2000ml Change 0.5l to mililitres 1 litre = 1000mls 0.5litre = 0.5 x 1000ml ($\frac{5}{10}$ x 1000) ml 500ml How many mls are 4 litres					
	6	Measurements	Capacity	Conversion of units	The learner; Converts the volume to capacity correctly Uses the correct units	The learner; Reads the sentences fluently Uses the words litres capacity and millimeters correctly	Converting militres to litres 1ml = $\frac{1}{1000}$ l Note capacity in litre $\frac{volume}{1000}$ A box contains 25000c/ml of water. How many litres are in the box.	Guided discovery Explanation Question and answer	Converting volume to capacity in litres	Fluency Accuracy Appreciation	Chart showing metric system	New MK pupils book 5 pages 167 - 168

							1ml = $\frac{1}{1000}$ l 25000ml = $\frac{25000}{1000}$ = 25l Change 6250ml to litres Capacity and 1ml = $\frac{1}{1000}$ l 25000ml = $\frac{25000}{1000}$ =25l Change 6250ml to litres Capacity = $\frac{v}{1000}$ = $\frac{6250}{1000}$ litres =6.25litres Change 250mls to litres					
	7	Measurements	Capacity	Volume and capacity of a cube and cuboids	The learner; Draws in cube and cuboid correctly Finds the volume of the cube and cuboid correctly Converts the volume to capacity (litres) correctly	The learner; Reads and interprets words and problems involving volume and capacity correctly	Volume of a cube and cuboid Cube  Volume = L x L x L =L^3  Volume = L x W x H Find the volume of the figure below	Explanation Guided discovery Group work Question and answer technique	Describing the figures Finding the volume of the cube and cuboid Find the capacity in litres	Appreciation Care Fluency Confidence	Real objects Cubes Cuboids Chart showing the formula e for volume Tins Room	MK pupils books page 170

							 Volume = L x W x H =5cm x 4cm x 3cm = $20cm^2$ x 3cm = $60cm^3$ A rectangular tank whose length is 10cm, 80cm width and is 30cm high. Find the volume of the tank Volume = L x W x H = 10cm x 80cm x 30cm = $600cm^2$ x 30cm = $24000cm^3$. Find the capacity of the tank Volule $= \frac{volume}{1000}$ $= \frac{24000}{1000}$ l = 24l					
5	1	Numeracy	Addition of integers	Addition of integers	The learner; Draws the number line correctly Represents the intege5rs on the number line using arrows correctly Adds integers correctly	The learner; Describes the integers on the number line correctly	Addition of integers Add: + 2 + 3  +2 + +3 = +5 Add: - 2 + -4 	Demonstration Question and answer Group work	Drawing number line Representing the integers on the number line	Patience Love Care Appreciation	Text books Chart showing the addition of integers	New MK pupils book 5 page 87 and Essential Ug. Primary MTC book 5 page 154

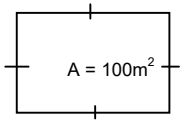
						-2 + -4 = -6 Add the following i) +4 + 2 ii) 5 + +3					
	2	Numeracy	Addition of integers	Addition of integers	The learner; Subtracts the integers using a number line correctly	The learner; Reads, spells, pronounces and writes words like backward, forward, below, positive and negative correctly	Subtractgion of integers Examples +2 - +4 (+4)  +2 - -4 Subtraction by lebelling Subtract : +2 – 4 A B  +2 - +4 = -2	Demonstration Explanation Guided discovery	Drawing the number line Representing the number line	Accuracy Neatness Fluency Confidence	Text books	Essential Ug. Primary MTC books page 183 and MK pupils book 5 page 90
	3	Numeracy		Addition on subtraction	The learner; Adds the integers without using the number line correctly Subtracts integers correctly	The learner; Describes the integers using simple language	Addition and subtraction without using a numberline Examples Add: +2 + +5 Pos | Neg xx x xx | 0 xx x 2 + 5 = 7 Subtract +2 - +5 +2 – 5  +2 -5 = -3 Add +4 - -7 +2 – 5 Pos Neg Subtract +7 - +4 11 – 7	Guided discovery Discussion Explanation	Adding integers Subtracting integers	Love Care Fluency Articulation Confidence	Chart showing the addition and subtraction of integers Text books	MK pupils book 5 pages 88 – 89

							 +4 + -7 = -3					
	4	Numeracy	Integers	Additive inverse	The learner; Finds the inverse of an integer correctly	The learner; Reads, spells, pronounces and writes words like additive, inverse correctly Uses the words in sentences correctly	Additive inverse Note: They are the opposite of given integer Example Find the additive inverse of +3 Let the inverse be y. Y + 3 = 0 Y + 3 – 3 = 0.3 Y + 0 = -3 Y = -3 Using as number line 	Explanation Guided discovery	Forming equations and solving Stating the inverse of a given integer	Love Care Fluency Articulation Confidence	Chart showing the addition and subtraction of integers Text books	MK book 5 page 100 - 101
	5	Numeracy	Integers	Multiplication of integers	The learner; Recognizes the number of groups Multiplies correctly with or without a number line	The learner; Reads the words , groups laps, twice, thrice correctly Recognizes the direction of movement correctly	Multiplication of integers Examples Multiply z x +2 means 2 groups of +2  xx + xx 2x + 2 = +4 = +4 3 X -4 = 3 groups of -4 -4 + -4 + -4 Multiply using a number line 2x – 3 =  2 x -3 = -6 5 x -3 	Explanation Guided discovery	Forming groups from the given question Drawing number line showing the groups on the number line	Patience Care Confidence Neatness	Text books Chart	MK pupils book 5 page
	6	Numeracy	Integers	Application of integers	The learner; Applies the integers to solve wordy questions	The learner; Reads the words in sentences correctly Interprets the question correctly	Examples Jack made as loss of sh. 80,000 on the first day and a profit of sdh. 120,000 on the 2nd day. Whast did he end up with? Sh. 80000 + sh. 120,000	Explanation Guided discovery	Interpreting the question Solving the word application			

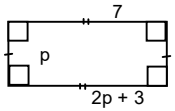
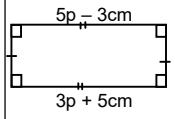
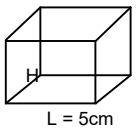
							Sh. 40,000	Question and answer				
6	1	Algebra	Algebra	Forming algebraic expression	The learner; Forms the algebraic expression correctly	The learner; Reads, spells, pronounces and writes words like algebraic, more double correctly Interprets the language used in expressing equations correctly	Forming the algebraic expression Examples 4 more than a = a + 4 Peter is twice as old as John who is (4 X x)y Peter's age = 2(4 + x) 2 divide by a number. A number increased by 4 Writing algebraic expression	Explanation Question and answer Guided discovery	Forming algebraic expression	Fluency Confidence Appreciation	Text book	New MK pupils book 5 page 91
	2	Algebra	Algebra	Collecting the like terms	The learner; Uses the words like collect , like terms in the sentences correctly	The learner; Reads, spells, pronounces and writes words like collect, like terms in the sentences correctly	Collecting the like terms Anet has 3 hens and 2 rabbits. Avinya has 2 hens and 5 rabbits. How many hens and rabbits do they have altogether? Let the hens be h , rabbits be r - Anet , 3h + 24 Avinya 2h + 5r 3h + 2r + 2h 3h + 2h + 3r + 5h 5h + 7h Collect the like terms i) a + a + a ii) 3p + 6r + p + r iii) 10w = qz + 3w = 11z	Explanation Question and answer Guided discovery	Collecting the like terms	Fluency Audibility Clarity Critical thinking	Text books	MK pupils books page 270 and Essential Ug. Primary MTC book 5 page 188
	3	Algebra	Algebra	Substitution	The learner; Identifies the value of the unknown Substitutes correctly	The learner; Pronounces the word substitutes correctly Identifies other words to mean substitute correctly	Substitution means to replace Examples If Z = 2 and Y = 4, find the value of Z + Y Z + Y = 2 + 4 = 6 If a = 2, b = 3 and c = 4, Find the value of; i) a + b + c ii) 5c + 4b = 8a	Guided discovery Explanation Group work	Subtracting the unknown with known with known	Sharing Patience Expression Confidence Fluency	Real objects like Fruits Chairs Pencils	MK pupils book page 271

	4	Algebra	Algebra	Solving equations	The learner; Solves the equation by adding correctly	The learner; Describes the equation correctly Uses the words like balancing substitute correctly	Solving equation by subtracting Examples Solve for x. X + 4 = 7 X + 4 – 4 = 7 – 4 X + 0 = 3 X = 3	Guided discovery Group work	Solving equations by subtracting on both sides	Sharing Patience Expressio n Confidenc e Fluency	Weighin g scale Text books	Mk pupils book 5 page 272
	5	Algebra	Algebra	Solving equations	The learner; Solves the equation correctly	The learner; Describes equation verbally correctly	Solving equation by adding Examples Find the value of n n – 8 = 12 n – 8 + 8 = 12 + 8 n+0 = 20 n = 20 Solve for b B – 48 = 18	Guided discussion Group work	Solving equation by adding both sides	Sharing Patience Expressio n Confidenc e Fluency	Chart Text books	Essential Ug. Primary MTC book 5 page 194 – 196
	6	Algebra	Algebra	Solving equations	The learner; Solving equation	The learner; Reads, spells, pronounces and writes words like co-efficient, quotients and divide correctly	Solving equation by dividing Examples Solve for a 5a = 20 $\frac{5a}{5} = \frac{20}{5}$ There a = 4 Solve for ax X + x + x = 30 $\frac{3x}{3} = \frac{30}{3}$ There x = 5 Solve for P 10p = 180 $\frac{10p}{10} = \frac{180}{10}$ There P= 18	Explanation Guided discovery Question and answer	Solving by adding the co-efficient of the unknown on both sides	Fluency accuracy Accuracy Respondin g to question	Text books	MK pupils book 5 page 216 and Essential Ug. Primary MTC book 5 page 195

	7	Algebra	Algebra	Forming and solving equations	The learner; Forming and solving equations	The learner; Reads the sentences correctly Interprets the statements correctly	Forming and solving equations Examples When 3 is subtracted from a number, the answer ijs 10. What is the number? Let the number be y. 3 from y = 10 Y – 3 = 10 Y – 3 +3 = 10 +3 Y + 0 = 13 Y = 13. In a class, 12 pupils are absent and 72 pupils are present. How many pupils are in the class. Let the total number of pupils be h H – 12 = 48 H – 12 + 12 = 72 + 12 H + 0 = 84 H = 84	Guided discovery Explanation Group work	Summarizing the equation Forming the equation Solving equations	Fluency Audibility Stress Patience Appreciation Responding to question	Text books	MK pupils book 5 page 275
7	1	Algebra	Algebra	More on solving equations	The learner; Solves the equation correctly Divides correctly	The learner; Reads the words application correctly	Solving more equations Examples Solve for a 2a + 5 = 7 2a + 5 – 5 2a + 0 $\frac{2a}{2} = \frac{2}{2}$ a = 1 Solve for y 6y – 5 = 19 6y – 5 + 5 = 19 + 5 6y + 0 = 24 $\frac{6y}{6} = \frac{25}{6}$ y= 4 Larok multiplied a number by 4 and added 5 to it. His result was 25. What is the number?	Discussion Explanation Guided discovery Question and answer	Solving equation Collecting like terms	Fluency Audibility Stress Patience Appreciation Responding to question	Text books	MK pupils book 5 page 275

	2	Algebra	Algebra	More on solving equations	The learner; Find the value of the unknowns correctly	The learner; Uses the words square, square roots, factorizing correctly	Solving equations involving squares Examples Find the value of f if $f^2 = 25$ $f^2 = 25$ $\sqrt{f^2} = \sqrt{25}$ $\sqrt{f \times f} = \sqrt{5 \times 5}$ $f = 5$ The area of a square is $9cm^2$. Find the length of one side. $A = S \times S$ $9cm^2 = S^2$ $\sqrt{s^2} = \sqrt{9cm^2}$ $\sqrt{S \times S} = \sqrt{3 \times 3cm}$ $S = 3cm$ Find the value of w if i) $w^2 = 144$ ii) $z^2 = 169$ iii) $r^2 = 100$	Discussion Explanation Guided discovery Question and answer	Finding the value of the unknown by finding the square root	Fluency Audibility Stress Patience Appreciation Responding to question	Text book	MK pupils book 5 page 280
	3	Algebra	Algebra	More on solving equations	The learner; Prime factorizes the number correctly. Finds the square roots of numbers correctly	The learner; Reads the words lie prime factorise, pairs, square, roots correctly	Finding the sides of a square using square roots Examples The area of a square compound is $100m^2$. Find the sides  Area = S x S	Guided discovery Question and answer	Prime factorizing Substituting Finding perimeter Confidence	Neatness Responding to questions Confidence Love	Cut outs Real objects like squared faces, pieces of clothes Text book	MK pupils book 5 page 281

							100m2 = S x S (10x10) (mxm) (s x s) 10 x m = s 10m = s	Explanation	Love Neatness	Neatness		
	4	Algebra	Algebra	Solving equation involving fractions	The learner; Identifies the LCD correctly Solves by multiplying the LCD both sides correctly	The learner; Uses the words like denominator, multiple correctly in the sentences	Involving equation involving fractions Examples Solve: $\frac{x}{3}$ = 4 (multiply by the lowest Common D) 3 x $\frac{x}{3}$ = 4 x 3 X = 12 Solve for P $\frac{p}{7}$ = 7 $\frac{p}{7}$ x 7 = $\frac{7}{1}$ x 7 P = 49	Guided discovery Question and answer Explanation	Prime factorizing Substituting Finding perimeter	Neatness Responding to questions Confidence I	Cut outs Real objects like squared faces, pieces of clothes Text book	MK pupils book 5 page 283
	5	Algebra	Algebra	Find the sides of a rectangle	The learner; Draws the figure well Divides by the co-efficient correctly	The learner; Reads and interprets the words in the sentences correctly	Finding the side of a rectangle and square with perimeter Example A square has a perimeter of 36cm. Find the length of sides S p = 45 $\frac{36}{4}$ = $\frac{45}{4}$ S = 9cm	Explanation Discussion Guided discovery	Prime factorizing Substituting Finding perimeter Confidence Love Neatness	Neatness Responding to questions Confidence Identifying the LCD	Cut outs Real objects like squared faces, pieces of clothes Text book	MK pupils book 5 page 284-285
	6	Algebra	Algebra	More on the rectangle	The learner; Solves the words application questions correctly Illustrates the figure correctly	The learner; Reads the word problem correctly	Finding the unknown sides when area is given Examples The area of a rectangle is 32cm^2. Its length is 8cm, Find the width w 8cm	Guided discovery Explanation Question and answer	Reading the questions Illustrating the figure Solving the wordy	Fluency Articulation Confidence	Chart showing rectangle with missing sides Text	MK pupils book 5 page 289

							Area = L x W L x W = A 8 x W = 32cm2 $\frac{8wcm}{8cm} = \frac{32cmxcm}{8cm}$ W = 4cm		application question	Responding to questions	books	
	7	Algebra	Algebra	More on the rectangle	The learner; Solves equation to find the unknowns Applies the formulae for area and perimeter correctly	The learner; Uses the word simplify in the sentences correctly	More on finding the unknown of the rectangle Examples  Find the value of p. 2p + 3 = 7 2p + 3 -3 = 7 – 3 2p + 0 = 4 $\frac{2p}{2} = \frac{4^2}{2}$ P = 2 Find the area Actual width P= 2cm A = L x w = 7cm x 2cm 14cm^2. Find the value of t in cm  	Guided discovery Explanation Question and answer	Solving equation Finding perimeter and area	Fluency Articulation Confidence Responding to questions	Chart showing rectangle with missing sides Text books	MK pupils book 5 page 289
8	1	Algebra	Algebra	More on the rectangle	The learner; Illustrates the cuboid by drawing it correctly Applies the suitable formulae Substitutes correctly	The learner; Reads and interprets the word problem correctly	Finding the missing sides when volume given Examples The volume of a cuboid is 60cm^3. Its length is 5cm and width is 4cm. Find its height.  W=4cm	Guided discussion Explanation	Reading the questions Illustrating Stating the formulae Solving by substituting	Fluency Responding t question Critical thinking	Text book chart	MK pupils book 5 page 287

							Volume = L x W x H $60cm^3$ = 5cm x 4cm x H $60cm^3$ = $20cm^2$ x H $\frac{60cm^3}{3cm} = \frac{20cm^{2xh}}{20cm^2}$ 3cm = H The height of a cuboid is 3cm					
	2	Algebra	Algebra	More on application of algebra	The learner; Summaries the question correctly Solves the words problem correctly	The learner; Reads the word problem correctly Interprets the question correctly	More on application Joel isd twice as old as his brother who is x years. If their totasl age is 30 years, find Joel's age. Brother | Joel | Total x | 2x | 30 x+ 2y = 30 $\frac{3x}{3} = \frac{30}{3}$ x = 10 Joel = (2x10) years = 20 years	Explanation Guided discovery Question and answer	Reading Summarizing the question Solving the given question	Fluency Responding t question Critical thinking	Text books Chalkboard illustration	