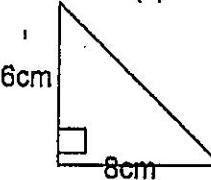
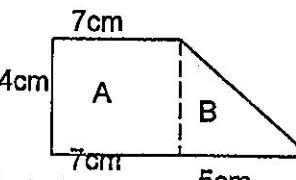
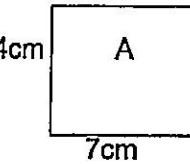
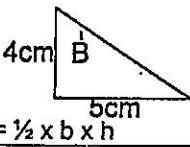
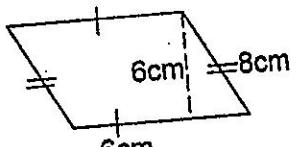
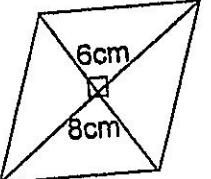
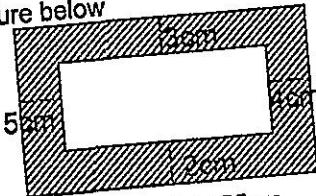


PRIMARY SIX MTC SCHEME OF WORK FOR TERM III 2023

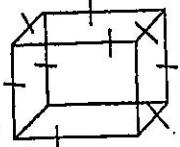
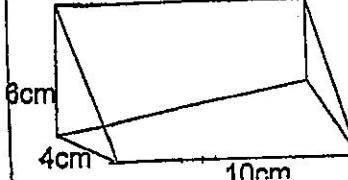
PD	THEMES TOPIC	SUB- TOPIC	CONTENTS	SUBJECT COMPETENCE	L/COMPET ENCE	METHODS	ACTIVITY	L/SKILLS	L/AIDS	REF
1	Length mass and capacity	Conversion of units	<p>Conversion of units metres to centimeters</p> <ul style="list-style-type: none"> - Kilograms to grams <p>Example Change 5.04m to cm. $1\text{m} = 100\text{cm}$. $5.04 = 5.04 \times 100$ $= 504\text{cm}$.</p>	The learners - Converts from the unit to another	The learner:- Reads and writes words	Presentation and explanation guided discovery discussion	Converting units	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness - Cooperation 	Multiplicati on tables chalkboar d Illustration textbooks	MK mtcs bk 6 pg 127 abridg ed curric ulum p.6 mtcs pg 35.
2		Area	<p>Finding area of squares and rectangles</p> <ul style="list-style-type: none"> • To find area of a square or rectangle, multiply the two adjacent sides. <p>Example Find the area of a square whose side is 6cm. $\text{Area} = \text{Side} \times \text{Side}$ $= 6\text{cm} \times 6\text{cm}$ $= 36\text{cm}^2$.</p>	The Learners Finds the area of square and rectangles	The learner:- Reads and writes words	Presentation and explanation guided discovery discussion	Finding area	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness - Cooperation 	Multiplicati on tables chalkboar d Illustration textbooks	MK mtcs bk 6 pg 128 abridg ed curric ulum p.6 mtcs pg 35.
3			<p>Finding area when perimeter is of a rectangle is given.</p> <p>Example The perimeter of a rectangle is 20cm. It's width is 3cm. Find its area $\text{Length} = \frac{\text{Perimeter} - \text{Width}}{2}$ $= \frac{20\text{cm} - 3\text{cm}}{2}$ $= 10\text{cm} - 3\text{cm}$ $= 7\text{cm}$</p>	The learner - Finds area when perimeter is given	The learner:- Reads and writes words	Presentation and explanation guided discovery discussion	Finding area	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness - Cooperation 	Multiplicati on tables chalkboar d Illustration textbooks	MK mtcs bk 6 pg 129 abridg ed curric ulum P.6 mtcs pg 35

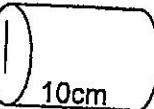
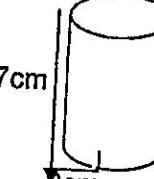
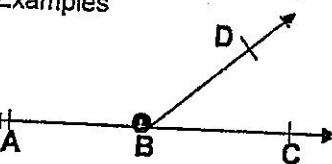
			$\text{Area} = L \times W$ $= 7\text{cm} \times 3\text{cm}$ $= 21\text{cm}^2$.							
4	Lengths mass and capacity	Area	<p>Finding area when perimeter of a square is given</p> <p>Example</p> <p>The perimeter of a square is 40m. find its area</p> <p>Its side = <u>perimeter</u></p> $= \frac{40\text{m}}{4}$ $= 10\text{m.}$ <p>$\text{Area} = S \times S$ $= 10\text{m} \times 10\text{m}$ $= 100\text{m}^2$.</p>	<p>The learner:</p> <ul style="list-style-type: none"> - Find area when perimeter is given 	<p>The learners</p> <ul style="list-style-type: none"> - read the given words and examples 	<p>Presentation and explanation</p> <ul style="list-style-type: none"> - Guided discovery - Question and answer - discussion 	<p>Finding area of a square</p>	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness 	<p>Chalkboard illustration chart showing shapes textbooks</p>	<p>MK Mtcs Bk6 pg 130 abridged curriculum P.6 pg 35</p>
5		Perimeter	<p>Finding perimeter when area of a rectangle is given</p> <p>Example</p> <p>The area of a rectangle is 60cm². Its length is 12cm. Find its perimeter.</p> <p>Width = Area</p> $\text{Length} = \frac{60\text{cm}^2}{12\text{cm}}$ $= 5\text{cm.}$ <p>$\text{Perimeter} = L + W + L + W$ $= 12 + 5 + 12 + 5$ $= 34\text{cm.}$</p>	<p>The learner</p> <p>Finds perimeter when area is given</p>	<p>The learners</p> <ul style="list-style-type: none"> - read the given words and examples 	<p>Presentation and explanation</p> <ul style="list-style-type: none"> - Guided discovery - Question and answer - discussion 	<p>Finding perimeter</p>	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness 	<p>Chalkboard illustration chart showing shapes textbooks</p>	<p>MK mtcs bk 6 pg 131 Abridged curriculum P.6 mtcs pg 35</p>
6			<p>Finding perimeter when area of a square is given</p> <p>Example</p> <p>Calculate the perimeter of a square of area 25cm².</p> <p>$\text{Side} = \sqrt{\text{Area}} = \sqrt{25}$ $= \sqrt{5 \times 5}$ $= 5\text{cm.}$</p> <p>$\text{Its perimeter} = S + S + S + S$ $= 5 + 5 + 5 + 5$</p>	<p>The learner:</p> <p>Finds perimeter when area is given</p>	<p>The learners</p> <ul style="list-style-type: none"> - read the given words and examples 	<p>Presentation and explanation</p> <ul style="list-style-type: none"> - Guided discovery - Question and answer - discussion 	<p>Finding perimeter</p>	<ul style="list-style-type: none"> - Critical thinking - Problem solving - Assertiveness 	<p>Chalkboard illustration chart showing shapes textbooks</p>	<p>MK mtcs Bk 6 pg 132 Abridged curriculum P.6 mtcs</p>

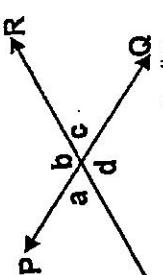
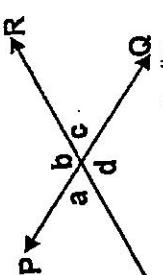
			= 20cm						Pg 35.	
1	Length mass and capacity	Area of triangle	Finding area of triangles Examples Find the Area of the triangle below $\text{Area} = \frac{1}{2} \times \text{base (b)} \times \text{height (h)}$  $\text{Area} = \frac{1}{2} \times b \times h$ $= \frac{1}{2} \times 8\text{cm} \times 6\text{cm}$ $= \frac{48}{2}$ $= 24\text{cm}^2$.	The learners - Finds area of triangles	The learner - reads the given words and examples	Presentation and explanation discussion	Finding area of triangle	- critical thinking - problem solving - cooperation - sharing	Charts Chalkboard Illustrations Textbook Multiplication tables.	MK primary mtcs Bk 6 pg 133 Abridged curriculum pg 35
2		Trapezium	Finding area of a trapezium Example Find area  Divide the trapezium into 2 parts  $= L \times W$ $= 7\text{cm} \times 4\text{cm}$ $= 28\text{cm}^2$ Total Area = $(28 + 10)\text{cm}^2$ $= 38\text{ cm}^2$.  $= \frac{1}{2} \times b \times h$	The learner - Finds area of a trapezium	The learner - reads the given words and examples	Presentation and explanation discussion	Finding area of a trapezium	Finding area of triangle	- critical thinking - problem solving - cooperation - sharing	Mk primary mtcs bk 6 pg 134 abridged curriculum pg 35

3	Length mass and capacity	Area of a parallelogr am ...	$= \frac{1}{2} \times 5 \times 4$ $= 10\text{cm}^2$ Find the area of the parallelogram with a 6cm base and 6cm height  Area = base x height $= 6\text{cm} \times 6\text{ cm}$ $= 36\text{cm}^2$	The learner: - Finds area of a parallelogram	The learner - reads the given words and examples	Finding area of a parallelogra m	Finding area of a trapezium	Finding area of triangle	- critical thinking - problem solving - cooperat ion - sharing	MK primar y mtcs bk 6 pg 1350 abridg ed curric ulum pg 35
4	Length mass and capacity	Area	Finding Area of a rhombus and a kite Example 1. Find the area of a rhombus whose diagonals are 8cm by 6cm.  $A = \frac{1}{2} \times d \times d_2$ $= \frac{1}{2} \times 8 \times 6$ $= \frac{48}{2}$ $= 24\text{cm}^2$	The learners Finds the area of a rhombus and a kite	The learner - Reads the given examples - Spells the different words	Presentation and explanation guided discovery discussion question and answer	Finding area of a rhombus and kite	Critical thinking Problem solving Cooperation sharing	- multiplic ation tables chalk board illustratio n textbook s	MK primar y mtcs bk 6 pg 136 Abridg ed curric ulum pg 35
5			Finding the shaded area Example Find the shaded area in the figure below  Outer figure length = 23cm	The learner - Finds the shaded area	The learner - Reads the given examples - Spells the different words	Presentation and explanation guided discovery discussion question and answer	Finding the shaded area	Critical thinking Problem solving Cooperation sharing	- multiplic ation tables chalk board illustratio n textbook s	MK primar y mtcs bk 6 pg 137 Abridg ed curric ulum pg 35

			Width = 15cm Inner figure Length = $23 - (5+4) = 23 - 9 = 14\text{cm}$. Width = $15 - (3 + 2) = 15 - 5 = 10\text{cm}$ Outer Area $L \times W = 23\text{cm} \times 15\text{cm} = 345\text{cm}^2$. Inner Area $= L \times W = 14\text{cm} \times 10\text{cm} = 140\text{cm}^2$. Shaded Area = $(345 - 140)\text{cm}^2 = 205\text{cm}^2$.							
6		Circumference	Finding Circumference of a circle Example Find the circumference of a circle whose radius is 7cm. Circumference = $2 \times \pi r$ $= 2 \times 22/7 \times 7\text{cm}$ $= 2 \times \frac{22}{7} \times 7 = 44\text{cm}$	The learner - Finds the shaded area	The learner - Reads the given examples - Spells the different words	Presentation and explanation guided discovery discussion question and answer	Finding circumference of a circle	Critical thinking Problem solving Cooperation sharing	- multiplication tables chalk board illustration textbook	MK primary mtcs bk 6 pg 139 Abridged curriculum
3	1	Length mass and Capacity	Finding perimeter of sectors of a circle Example Find the perimeter of semi circle whose diameters is 14cm. Perimeter = $\frac{1}{2} \times \pi D + D$ $= \frac{1}{2} \times 22 \times 14 + 14$ $= 22\text{cm} + 14\text{cm}$ $= 36\text{cm}$	The learner: -Finds the periter of semi-circles	The learner Reads and spells the different words in examples	Presentation and explanation guided discovery use of examples	Finding perimeter of a semi-circle	Critical thinking Assertiveness problem solving assertiveness	- C/board illustrations - textbook multiplication tables	MK Primary mtcs bk 6 pg 140 abridged curriculum
	2	Area of circles	Finding area of circles Examples Find the area of a circle of radius 7 cm.	The learner - Finds area of a circle	The learner Reads and spells the different	Presentation and explanation guided	Finding area of a circle	Critical thinking Assertiveness problem	- C/board illustrations - textbook	MK primary mtcs bk 6

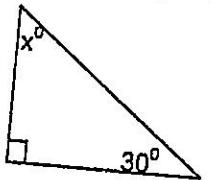
				Area of a circle = $\frac{22}{7} \times 7 \times 7$ $\frac{7}{7}$ = 22×7 = 154cm^2 .	words in examples	discovery use of examples		solving assertiveness	multiplication tables	pg 141 Abridged curriculum pg 142.	
3	Volume			Finding volume of cubes and cuboids Example Find the volume of the cube below  Volume = base area x height $V = L \times W \times H$ = $10\text{cm}^2 \times 10\text{cm}$ = $100\text{cm}^2 \times 10\text{cm}$ = 1000cm^3 .	The learners - finds volume of cubes and cuboids	Critical thinking Assertiveness problem solving assertiveness	- C/board illustrations - textbook multiplication tables	Finding volume of cubes and cuboids	Critical thinking Assertiveness problem solving assertiveness	- C/board illustrations - textbook multiplication tables	MK primary mtc's bk 6 pg 142 Abridged curriculum pg 35
4				Finding volume of triangular prisms Examples Find the volume of a prism  Volume = Area of triangle x length $V = (\frac{1}{2} \times 4 \times 6) \times 10\text{cm}$ $V = (2 \times 6 \times 10)\text{cm}^3$ $V = 120\text{cm}^3$.	The learner - Finds the volume of triangular	Critical thinking Assertiveness problem solving assertiveness	- C/board illustrations - textbook multiplication tables	Finding volume of triangular prisms	Critical thinking Assertiveness problem solving assertiveness	- C/board illustrations - textbook multiplication tables	LK primary mtc's bk 6 pg 143 Abridged curriculum pg 35

6	Length mass and Capacity	Volume of cylinders	Finding volume of cylinders Example Find the volume of the cylinder  $\text{Volume} = \text{Area of the circle} \times \text{height}$ $\text{Volume} = \pi r^2 h$ $V = \frac{22}{7} \times 7 \times 7 \times 10$ $= 22 \times 7 \times 10$ $= 1540 \text{ cm}^3$	The learner Finds the volume of a cylinder	The learner - reads the different Mathematical phrases and statements	- Presentation and explanation guided discovery question and answer discussion	Finding volume of cylinders	Critical thinking Problem solving Accuracy cooperation sharing	- c/board illustrations - textbook chart - multiplatinum tables	MK primary mtcs bk 6 pg 145 abridged curriculum pg 35
1	Capacity	Measuring calculation capacity in litres and millilitres	Example Find the capacity of the tin below in ml. ($1\text{cm}^3 = 1 \text{ ml}$)  $V = \text{base area} \times \text{height}$ $= (\pi r^2) \times h$ $= 22 \times 2 \times 2 \times 7$ $= 88 \text{ cm}^3$ $1\text{cm}^3 = 1 \text{ ml}$ $88\text{cm}^3 = 88 \text{ ml.}$	The learner - Calculates capacity in litres and millilitres	The learner Calculates capacity in litres and milliliters	- Presentation and explanation guided discovery question and answer discussion	Finding capacity in litres and milliliters	Critical thinking Problem solving Accuracy cooperation sharing	- c/board illustrations - textbook chart - multiplatinum tables	MK primary mtcs bk 6 Pg 146 Abridged curriculum pg 35
2	Lines angles and geometric figures	Types of Angles	Naming supplementary angles Examples 	The learner - names and identifies the supplementary angles.	The learner Reads and spells the words Supplementary angles	- Presentation and explanation guided discovery question and answer	Naming the supplementary angles drawing the angles	Critical thinking Problem solving Accuracy cooperation sharing	- c/board illustrations - textbook chart - multiplatinum tables	MK primary mtcs bk 6 pg 149 abridged

				curriculum pg 36 -37		
3	Lines Angles and geometric figures	<p>Angles</p> <p>Vertically Opposite angles</p> <p>vertically opposite angles are equal</p> <p>Examples</p> 	<p>The learner</p> <ul style="list-style-type: none"> - Identifies the angles - draws and measures angles. <p>Complementary angles.</p> <p>Complementary angles add up to 90°.</p> <p>Examples</p>	<p>Critical thinking Problem solving Observation cooperation sharing</p> <p>Demonstration questions and answer presentation and explanation discussion</p>	<p>chart chalkboard illustrate textbooks</p>	MK primary matics Bk 6 pg 150 Abridged curriculum pg 37
4		<p>Vertically Opposite angles</p> <p>vertically opposite angles are equal</p> <p>Examples</p>  <p>Complementary angles.</p> <p>Complementary angles add up to 90°.</p> <p>Examples</p>	<p>The learner</p> <ul style="list-style-type: none"> - reads the different given examples <p>Complementary angles</p> <p>Complementary angles add up to 90°.</p> <p>Examples</p>	<p>Identifying complementary angles</p> <p>Demonstration questions and answer presentation and explanation discussion</p>	<p>chart chalkboard illustrate textbooks</p>	MK primary matics Bk 6 pg 151 Abridged curriculum pg 37
5		<p>Constructing parallel lines</p> <p>Example</p> <p>Construct line CD parallel to line AB.</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Draw line AB using a ruler and mark point T along AB 2. Construct a perpendicular at 	<p>The learner</p> <ul style="list-style-type: none"> - identifies, draws and constructs parallel lines. <p>$30^\circ + 60^\circ = 90^\circ$</p> <p>$30^\circ$ is a complement of 60°.</p>	<p>Constructing parallel lines</p> <p>Demonstration questions and answer presentation and explanation</p>	<p>Critical thinking Problem solving Observation cooperation sharing</p>	MK primary matics Bk 6 pg 152 Abridged curriculum pg 37

			point T. Mark point K along the perpendicular line 3. Construct a line perpendicular at point K parallel to AB. 4. Mark points O and D on the parallel line		n - discussion				curriculum pg 37	
6	Lines angles and geometric figures	Construction of angles	Constructing an angle of 90°. Example Construct an angle of 90° at point O. (i). Draw a straight line and mark point O. (ii) From O draw an arc of 180° from i to ii (iii) Lastly, draw a straight line to join the meeting points of the above arcs through point O.	The learner -- Construct an angle of 90° .	The learner - Reads the different steps taken when constructing angles	- Presentation and explanation guided discovery discussion demonstration	Constructing an angle of 90° .	- critical thinking - problem solving - accuracy observation sharing cooperation	c/board illustration textbooks mathematical set instruments like compass ruler pencil protractor	MK primary mtcs BK 6 pg 154 abridged curriculum pg 36 - 37
1			Constructing angles of 60 and 120°. (i) Draw a straight line, mark the point for the vertex. (ii) From point C, draw arcs i and ii on the line (iii) Using the same radius draw arcs iii and ii on the line. (iv) Lastly draw a line from C to any of the marked points. The smaller angle is 60° , the larger is 120° .	The learner constructs angles of 60° and 120° .	The learner - Reads the different steps taken when constructing angles	- Presentation and explanation guided discovery discussion demonstration	Constructing angles of 60° and 120° .	- critical thinking - problem solving - accuracy observation sharing cooperation	c/board illustration textbooks mathematical set instruments like compass ruler pencil protractor	MK primary mtcs bk 6 pg 155 Abridged curriculum pg 36-37
2			Bisecting Angles (i) Bisecting an angle means to divide it into two equal parts. The angle can face on the right or left. The angle can be small or big	The learner Bisects different angles	The learner - Reads the different steps taken when constructing angles	- Presentation and explanation guided discovery discussion demonstration	Bisecting angles	- critical thinking - problem solving - accuracy observation sharing cooperation	c/board illustration textbooks mathematical set instruments like compass ruler	MK primary mtcs bk 6 pg 156 Abridged curriculum

								pencil protractor	ulum pg 36 – 37																							
3	Lines angles and geometric figures	Construction	Constructing an angle of 30° . Steps 1. Construct an angle of 60° . 2. Bisect using the steps above to get an angle of 30° .	The learner Constructs an angle of 30° .	The learner - reads the different examples	- presentation and explanation guided discovery discussion demonstration	Constructing an angle of 30° .	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Ruler compass pencil chalkboard illustration textbooks	MK primary mtcs bk 6 pg 157 abridged curric ulum pg 36 – 37																						
4			(i) Constructing angles 45° and 135° . Steps 1. Draw a line and mark point 0 and 180° angle 2. Bisect 180° to get 90° angle by placing the compass point at 0 to mark (1) and ii 3. Bisect 90° to get 45° . (4) Draw a straight line from 0 through to separate 45° and 135° .	The learner Constructs angles of 45° and 135° .	The learner - reads the different examples	- presentation and explanation guided discovery discussion demonstration	Constructing angles of 45° and 135° .	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Ruler compass pencil chalkboard illustration textbooks	MK primary mtcs bk 6 pg 158 abridged curric ulum pg 36 – 37																						
5		Polygons	Naming polygons <table border="0"><tr><th>Sides</th><th>Name</th></tr><tr><td>3 sides</td><td>Triangle</td></tr><tr><td>4 sides</td><td>Quadrilateral</td></tr><tr><td>5 sides</td><td>Pentagon</td></tr><tr><td>6 sides</td><td>Hexagon</td></tr><tr><td>7 sides</td><td>Decagon</td></tr><tr><td>8 sides</td><td>Octagon</td></tr><tr><td>9 sides</td><td>Nonagon</td></tr><tr><td>10 sides</td><td>Decagon</td></tr><tr><td>11 sides</td><td>Undecagon</td></tr><tr><td>12 sides</td><td>Dodecagon</td></tr></table>	Sides	Name	3 sides	Triangle	4 sides	Quadrilateral	5 sides	Pentagon	6 sides	Hexagon	7 sides	Decagon	8 sides	Octagon	9 sides	Nonagon	10 sides	Decagon	11 sides	Undecagon	12 sides	Dodecagon	The learner - names the different polygons.	The learner - reads the different examples	- presentation and explanation guided discovery discussion demonstration	Naming polygons	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Ruler compass pencil chalkboard illustration textbooks	MK primary mtcs bk 6 pg 159 abridged curric ulum pg 36 – 37
Sides	Name																															
3 sides	Triangle																															
4 sides	Quadrilateral																															
5 sides	Pentagon																															
6 sides	Hexagon																															
7 sides	Decagon																															
8 sides	Octagon																															
9 sides	Nonagon																															
10 sides	Decagon																															
11 sides	Undecagon																															
12 sides	Dodecagon																															
6	Lines angles and	Polygons	Drawing different types of polygons	The leaner: - draws different	The learner - reads the	- presentation and	Drawing different	- critical thinking	Chalkboard	MK primary																						

		geometric figures	- A polygon with all sides and angles equal is a <u>regular polygon</u> . - A polygon with its angles and sides different is an <u>irregular polygon</u> .	types of polygons	given mathematical phrases	explanation - guided discovery question and answer	polygons	- problem solving - accuracy sharing - appreciation cooperation	illustration textbooks chart	y mtc bk 6 pg 160 abridg ed curric ulum pg 36 - 37
6	1	Polygons	Properties of triangles Types of triangles - Equilateral triangle Isosceles triangle Right – angled scalene triangle Equilateral triangle - All sides are equal - All angles are equal - Has 3-lines angles is 180° Isosceles triangle Isosceles triangle - Two of its 3 angles are equal - Has 1 line of symmetry - Its interior angles add up to 180° . Right Angled scalene triangle - All sides are different - All angles are different but one of them is 90° . - Has no line of symmetry - Its interior angles add up to 180° .	The learner - Mention the different types of triangles - the properties of triangle.	The learner - reads the given mathematical phrases	- presentation and explanation - guided discovery - question and answer	Drawing different polygons	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Chalkboard illustration textbooks chart	MK primary mtc bk 6 pg 161 abridg ed curric ulum pg 36 - 37
	2									
	3	Lines angles and geometric figures	Applying the angle sum of interior angles of triangle Find the size of angle x. 	The learner - Finds the sizes of different angles.	The learner - reads the different words	- Presentation and explanation - guided discovery - discussion question and	Finding the size of angles	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Chalkboard illustration Textbooks Charts	MK primary mtc bk 6 pg 162 abridg ed curric

$$X + 30^\circ + 90^\circ = 180^\circ \text{ (sum of angles in a triangle)}$$

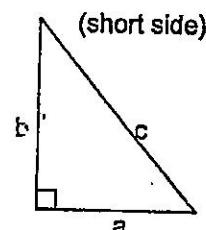
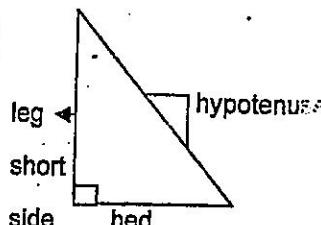
$$X + 120^\circ = 180^\circ$$

$$X + 120^\circ - 120^\circ = 180^\circ - 120^\circ$$

$$X = 60^\circ$$

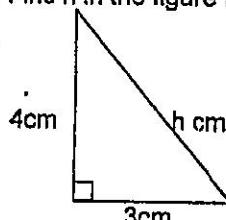
answer

4		Pythagoras theorem	Properties of right angled triangles (pythagoras theorem)	The learner applies the pythagorus theorem to solve problem	The learner reads the different words	- Presentation and explanation - guided discovery - discussion question and answer	Applying pythagorus theorem	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	Chalkboard illustration Textbooks Charts	MK primary mtc bk 6 pg 163 abridged curriculum pg 36 - 37	
5			Finding sides of the right angled triangle Example Find h in the figure below	The learner Finds the side of the right angled triangle	The learner reads the different words	- Presentation and explanation - guided discovery - discussion question and answer	Finding sides of right angled triangles	Applying pythagorus theorem	- critical thinking - problem solving - accuracy sharing - appreciation cooperation	primary mtc bk 6 pg 164 abridged curriculum pg 36 - 37	



$$a^2 + b^2 = c^2$$

Finding sides of the right angled triangle
Example
Find h in the figure below



$$a^2 + b^2 = c^2$$

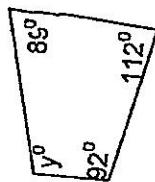
$$3^2 + 4^2 = h^2$$

$$(3 \times 3) + (4 \times 4) = h^2$$

$$9 + 16 = h^2$$

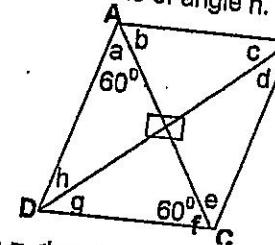
$$25 = h^2$$

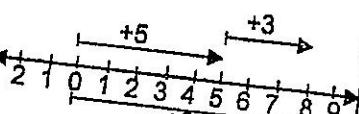
6	Lines angles and geometric figures	Constructing a right angled triangle Steps 1. First sketch it. 2. Draw a line AB = 3cm and construct an angle of 90° at it. 3. Mark off BC. Then draw a line from A to C.	The learner constructs a right angled triangle.	The learner - reads the different mathematical phrases. - guided discovery discussion - group work	- presenting on and explaining - critical thinking problem solving accuracy sharing appreciation - n cooperation	- chalkbo ard illustratio ns textbook compass ruler pencil - MK primar y matics bk 6 pg 165 abridg ed curric ulum pg 36 -37
		Naming properties of quadrilaterals - Most important property are the 4 sides and the sum of the four interior angles which is 360° .	The learner - names the properties of quadrilaterals	The learner - reads the different mathematical phrases. - guided discovery discussion - Group work	- Naming properties of quadrilater als - critical thinking problem solving accuracy sharing appreciation - n cooperation	- chalkbo ard illustratio ns textbook compass ruler pencil - MK primar y matics bk 6 pg 166 abridg ed curric ulum pg 36 -37
2		Applying angle properties of quadrilaterals - The interior angle sum of a quadrilateral is 360° . Example Find the size of $\angle y$	The learner - applies angle properties of quadrilaterals	The learner - reads the different mathematical phrases. - guided discovery discussion - group work	- Applying angle properties of quadrilater als - critical thinking problem solving accuracy sharing appreciation - n cooperation	- chalkbo ard illustratio ns textbook compass ruler pencil - MK primar y matics bk 6 pg 168 abridg ed curric ulum pg 36 -37



$$y + 112^{\circ} + 92^{\circ} + 85^{\circ} = 360^{\circ}$$

$$y + 293^{\circ} = 360^{\circ}$$

3		<p>$y + 293^\circ - 293^\circ = 360^\circ - 293^\circ$ $\angle y = 67^\circ$.</p> <p>Calculating angles of a rhombus and a parallelogram Example Find the size of angle h.</p>  <p> $\angle a = \angle b = \angle e = \angle f$ $\angle c = \angle d = \angle h = \angle g$ $\angle a + \angle b = \text{let } \angle f$ $\angle l + \angle g = \angle c + \angle d$ </p>	<p>The learner Calculates the angle of a rhombus' and a parallelogram</p>	<p>The learner - reads the different mathematical phrases.</p>	<ul style="list-style-type: none"> - presentation and explanation - guided discovery - discussion - group work 	<p>Calculating angles of a rhombus and parallelogram</p>	<ul style="list-style-type: none"> - critical thinking - problem solving - accuracy sharing - appreciation - cooperation 	<ul style="list-style-type: none"> - chalkboard illustrations - textbook compasses - ruler - pencil 	<p>MK primary mtcs bk 6 pg 169 abridged curriculum pg 36 – 37</p>	
4	Lines angles and geometric figures	Construction	<p>Drawing and constructing a square Procedure</p> <ul style="list-style-type: none"> - Construct a line - Mark 90° using a pair of compasses - Draw 2 perpendicular lines and mark on each - Complete the square with a ruler. 	<p>The learner - draws and constructs a square</p>	<p>The learner - reads and writes the mathematical statements</p>	<ul style="list-style-type: none"> - demonstration presentation and explanation guided discovery discussion 	<p>Drawing and constructing a square</p>	<p>Accuracy, critical thinking, problem solving, appreciation, assertiveness</p>	<ul style="list-style-type: none"> - ruler - compasses - pencil - c/board - illustration - textbook 	<p>MK primary mtcs bk 6 pg 170 abridged curriculum pg 36 – 37</p>
5			<p>Constructing rectangles Steps</p> <ul style="list-style-type: none"> - Draw a horizontal line - Use a pair of compasses to construct 90°. - Draw a vertical line - Complete the rectangle by joining the remaining side 	<p>The learner Constructs a rectangle</p>	<p>The learner - reads and writes the mathematical statements</p>	<ul style="list-style-type: none"> - demonstration presentation and explanation guided discovery discussion 	<p>Constructing a rectangles</p>	<p>Accuracy, critical thinking, problem solving, appreciation, assertiveness</p>	<ul style="list-style-type: none"> - ruler - compasses - pencil - c/board - illustration - textbook 	<p>MK primary mtcs bk 6 pg 171 abridged curriculum pg – 37</p>

			Constructing a hexagon Steps - Construct a regular hexagon of radius 4cm Draw a circle of radius 4cm. without adjusting the radius of the compasses, draw 6 points around the 6 points around the circle. join the 6 points to form a regular hexagon.	The learner Constructs a hexagon	The learner reads and writes the mathematical statements	- demonstration presentation and explanation guided discovery discussion	Constructing a hexagon	Accuracy critical thinking problem solving appreciation assertiveness	- ruler compass pencil c/board illustration textbook s	MK primary mtc s bk 6 pg 172 abridged curriculum pg 36 - 37
1	Prisms		Identifying simple properties of prisms A prism is a solid figure whose bases are equal polygons and whose lateral faces are parallelograms. prism and their properties	The learner - Identifies of prisms	The learner reads and writes the mathematical statements	- demonstration presentation and explanation guided discovery discussion	Identifying properties of prisms	Accuracy critical thinking problem solving appreciation assertiveness	- ruler compass pencil c/board illustration textbook s	MK primary mtc s bk 6 pg 173 abridged curriculum pg 36 - 37
2	Integers	Addition of Integers	Adding position to positive integers Example Work out $+5 + +3$ 	The learner Adds positive to positive integers	The learner Reads the given Integers	- demonstration presentation and explanation guided discovery	Adding positive to positive integers	Critical thinking Accuracy observation assertiveness problem solving	- chart chalkboard illustrations textbook	MK primary mtc s bk 6 pg 175 abridged curriculum pg 38

3		<p>Adding positive to negative integers Example Work out: $-5 + +2$</p>	<p>The learner Adds positive to negative integers</p>	<p>The learner Reads the given integers</p>	<ul style="list-style-type: none"> - demonstration - presentation and explanation - discussion guided discovery 	<p>Adding positive to negative integers</p>	<p>Critical thinking Accuracy observation assertiveness problem solving</p>	<p>- chart chalkboard illustrations textbook</p>	MK primary mtcs bk 6 pg 176 abridged curriculum g 38
4		<p>Adding negative to negative integers Example Work out: $-3 + -2$</p>	<p>The learner Adds negative to negative integers</p>	<p>The learner Reads the given integers</p>	<ul style="list-style-type: none"> - demonstration - presentation and explanation - discussion guided discovery 	<p>Sub trading positive integers from positive integers</p>	<p>Adding positive to negative integers</p>	<p>Critical thinking Accuracy observation assertiveness problem solving</p>	MK primary mtcs bk 6 pg 177 abridged curriculum g 38
5	Subtraction of integers	<p>Subtracting positive integers from positive integers Example Workout: $+6 - +8$</p>	<p>The learner Subtracts Positive integers from positive integers</p>	<p>The learner Reads the given integers</p>	<ul style="list-style-type: none"> - demonstration - presentation and explanation - discussion guided discovery 	<p>Subtracting positive integers from positive integers</p>	<p>Adding positive to negative integers</p>	<p>Critical thinking Accuracy observation assertiveness problem solving</p>	MK primary mtcs bk 6 pg 178 abridged curriculum g 38

6	Integers	Subtraction of integers	<p>Subtracting positive integers from negative integers</p> <p>Example</p> <p>Workout: $-4 - +3$</p> <p>So $-4 - +3 = -7$</p>	<p>The learner subtracts positive integers from negative integers</p>	<p>The learner reads the different information on a number line</p>	<p>Presentation explanation demonstration on discussion question and answer</p>	- subtracting integers	<p>Observation problem solving critical thinking accuracy appreciation cooperation</p>	Chalkboard illustration textbooks charts	MK primary mtc book 6 pg 179 abridged curriculum g 38
1			<p>Subtracting negative integers from positive integers</p> <p>Example</p> <p>Workout: $+1 - -3$</p> <p>So $+1 - -3 = +4 +4$</p>	<p>The learner Subtracts negative integers from positive integers</p>	<p>The learner reads the different information on a number line</p>	<p>Presentation explanation demonstration on discussion question and answer</p>	- subtracting integers	<p>Observation problem solving critical thinking accuracy appreciation cooperation</p>	Chalkboard illustration textbooks charts	MK primary mtc book 6 pg 180 abridged curriculum g 38
2			<p>Subtracting negative integers from negative integers</p> <p>Example</p> <p>Workout: $-5 - -7$</p> <p>So $-5 - -7 = +2$</p>	<p>The learner Subtracts negative integers from negative integers</p>	<p>The learner reads the different information on a number line</p>	<p>Presentation explanation demonstration on discussion question and answer</p>	- subtracting integers	<p>Observation problem solving critical thinking accuracy appreciation cooperation</p>	Chalkboard illustration textbooks charts	MK primary mtc book 6 pg 181 abridged curriculum g 38
			<p>Adding and subtracting integers without a number line</p> <p>Example</p> <p>Workout: $+3 + +3$ $+3 + (+3)$ $= +3 + 3$ $= +6$</p>	<p>The learner Adds and subtracts integers without a number line</p>	<p>The learner reads the different information on a number line</p>	<p>Presentation explanation demonstration on discussion question and answer</p>	Adding subtracting integers	<p>Observation problem solving critical thinking accuracy appreciation cooperation</p>	Chalkboard illustration textbooks charts	MK primary mtc book 6 pg 182 abridged curriculum g 38

4	Integers	Application of integers	Applying Integers in daily life Example Kato borrowed shs. 500 but paid back Shs. 300. how much money does Kato have? -Shs. 500 + Shs. 300 = -Shs. 200 He has a debt of sh. 200	The leaners applys integers in daily lives	The leaners Reads and writes different phrases.	Presentation and explanation guided discovery discussion	Solving number on application of integers	Critical thinking problem solving assertiveness	Chalkboard illustration Textbooks Counters	curriculum g 38	MK primary mtcs bk 6 pg 183 abridged curriculum g 38
5	Algebra	Algebraic expressions	Expression algebraic expressions in words Example Express the following in words $N + 5$ = add 5 to n $2x + 3$ = multiply x by 2, then add 3 to the result.	The learner expresses the algebraic expressions in words	The leaners Reads and writes different phrases.	Presentation and explanation guided discovery discussion	Expressing algebraic expressions in words	Critical thinking problem solving assertiveness	Chalkboard illustration Textbooks Counters	curriculum g 38	MK primary mtcs bk 6 pg 185 abridged curriculum g 38
6			Expressing phrases as algebraic expressions words Example 2 more than P = $P + 2$ 5 years younger than P = $P - 5$ Four times K's age = $4k$ Average of a and b = $\frac{a+b}{2}$	The learner Expresses the algebraic expressions in words	The leaners Reads and writes different phrases.	Presentation and explanation guided discovery discussion	Expressing algebraic expressions in words	Critical thinking problem solving assertiveness	Chalkboard illustration Textbooks Counters	curriculum g 38	MK primary mtcs bk 6 pg 186 abridged curriculum g 38
1		Substitution	Substitution Example Given that $a = 5$, $b = 4$ and $c = 6$. What is $a(b+c)$? $a(b+c) = 5(4+6)$ = 5×10	The leaner Works out number on substitution	The leaners Reads and writes different phrases.	Presentation and explanation guided discovery discussion	Solving numbers	Critical thinking problem solving assertiveness	Chalkboard illustration Textbooks Counters	curriculum g 38	MK primary mtcs bk 6 pg 187

			= 50.							abridg ed curric ulum g 38
2	Algebra	Simplifying like terms	Simplifying like terms Example Simplify: $3x + 4x + 2x$ $3x + 4x + 2x$ $= 3x + 4x + 2x$ $= 7x + 2x$ $= 9x.$	The learner Simplifies like terms	The learners Reads different phrases and expression	Presentation and expression guided discovery discussion	Simplifying like terms	Critical thinking Problem solving accuracy	Chalkboard illustration textbooks	MK primary mtcs bk 6 pg 188 abridg ed curric ulum g 38
3		Like terms	Collecting like terms Example Simplify: $x + y + 2x + 4y$ $x + y + 2x + 4y$ $= x + 2x + y + 4y$ $= 3x + 5y$	The learner Collects like terms	The learners Reads different phrases and expression	Presentation and expression guided discovery discussion	Collecting like terms	Critical thinking Problem solving accuracy	Chalkboard illustration textbooks	MK primary mtcs bk 6 pg 189 abridg ed curric ulum g 38
4		Simple equations	Solving equations by subtracting Example Solve: $p + 4 = 12$ $p + 4 = 12$ $p + 4 - 4 = 12 - 4$ $p = 8$	The learner Solves equations by subtracting	The learners Reads different phrases and expression	Presentation and expression guided discovery discussion	Solving equations	Critical thinking Problem solving accuracy	Chalkboard illustration textbooks	MK primary mtcs bk 6 pg 190 abridg ed curric ulum g 389
5			Solving equations by adding Example Solve: $b - 3 = 8$ $b - 3 = 8$	The learner Solve equations by adding	The leaners Reads different phrases and	Presentation and expression guided	Solving equations	Critical thinking Problem solving	Chalkboard illustration textbooks	MK primary mtcs bk 6

abridged
curriculum 389

6			Solving equations by adding Example Solve: $2x = 8$ $\underline{2} \quad \underline{8}$ $2 \quad 2$ $X = 4$ 4 buses carry y passengers each. altogether they carried 320 passengers. How many passengers did each bus carry? $\underline{4y = 320}$ $4 \quad 320$ $Y = 80$	The learner Solves equation by dividing	The learners Reads different phrases and expression	Presentation and expression guided discovery discussion	Solving equations	Critical thinking Problem solving accuracy	Chalkboard illustration textbooks	MK primary mtcs bk 6 pg 192 abridged curriculum 389
1	Algebra	Equations	Solving equations with fractions Example Solve: $\frac{a}{3} = \frac{4}{1}$ $a = \frac{4}{1}$ $3 \times \frac{a}{3} = \frac{4}{1} \times 3$ $a = 12$	The learner: Solves Equations with fraction	The learner Reads the different equations	Presentation and explanation guided discovery discussion	Solving equations	Problem solving critical thinking Accuracy assertiveness creative thinking	Textbooks chalk board illustrations	MK primary mtcs bk 6 pg 193 abridged curriculum 389

	2		Forming and solving equations Example A boy is 2 years older than his sister. their total age is 20 years. how old is the sister? Let the sister's age be x <table border="1"> <tr> <th>Sister</th><th>Boy</th><th>Total</th></tr> <tr> <td>X</td><td>X + 2</td><td>20 years</td></tr> </table> $x + x + 2 = 20 \text{ years}$ $2x + 2 = 20 \text{ years}$ $2x + 2 - 2 = 20 - 2$ $2x = 18$ $\frac{2}{2} \quad \frac{9}{9}$ $X = 9$	Sister	Boy	Total	X	X + 2	20 years	The learner Forms and solves equations .	The learner Reads the different equations	Presentation and explanation guided discovery discussion	Forming and solving equations	Problem solving critical thinking Accuracy assertiveness creative thinking	Textbooks chalk board illustration s	MK primar y mtcs bk 6 pg 194 abridg ed curric ulum g 389
Sister	Boy	Total														
X	X + 2	20 years														
	3		Solving equations with brackets Example Solve: $5(x + 1) - 3(x - 1) = 14$ $5x + 5 - 3x + 3 = 14$ $5x - 3x + 5 + 3 = 14$ $2x + 8 = 14$ $2x + 8 = 8 = 14 - 8$ $2x = 6$ $\frac{2}{2} \quad \frac{6}{6}$ $X = 3$	The learner Solves equations with brackets	The learner Reads the different equations	Presentation and explanation guided discovery discussion	Solving equations with brackets	Problem solving critical thinking Accuracy assertiveness creative thinking	Textbooks chalk board illustration s	MK primar y mtcs bk 6 pg 195 abridg ed curric ulum g 389						
	4	Algebra	Equations Collecting like terms and solving equations Example Solve: $3g + g + 2g = 30$ $6g = 30$ $\frac{6g}{6} = \frac{30}{6}$ $g = 5$	The learner collects like terms and solve equations	The learner reads the different phrases	Presentation and explanation guided discovery discussion	Solving equations	Critical thinking problem solving accuracy discussion	Chart c/board illustration textbooks	MK primar y mtcs bk 6 pg 196 abridg ed curric ulum g 389						
	5		Solving equations formed from polygons Example	The learner Solves equations formed from	The learner reads the different	Presentation and explanation	Solving equations	Critical thinking problem	Chart c/board illustration	MK primar y mtcs						

6		<p>Find the value of x</p> $2x + 1 = x + 5$ $2x + 1 - 1 = x + 5 - 1$ $2x = x + 4$ $2x - x = x - x + 4$ $X = 4$	<p>polygons</p>	<p>phrases</p>	<p>guided discovery discussion</p>	<p>solving accuracy discussion</p>	<p>textbooks</p>	<p>bk 6 pg 197 abridg ed curric ulum g 389</p>	
		<p>Forming and solving more equations</p> <p>Examp!</p> <p>In a rectangle the length is twice the width and the perimeter is 24cm. find the area of the rectangle.</p> $2x \text{cm}$ 2cm $X + 2x + x + 2x = 24$ $6x = 24$ $6x = 24$ $6 \quad 6$ $X = 4\text{cm}$ <p>Area L x W</p> $= (8 \times 4) \text{ cm}^2$ $= 32\text{cm}^2$	<p>The learner forms and solves more equations</p>	<p>The learner reads the different phrases</p>	<p>Presentation and explanation guided discovery discussion</p>	<p>Solving equations</p>	<p>Critical thinking problem solving accuracy discussion</p>	<p>Chart c/board illustration textbooks</p>	<p>MK primary mtcs bk 6 pg 198 abridg ed curric ulum g 389</p>