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| **WK** | **PD** | **THEME** | **TOPIC** | **S/TOPIC** | **SUBJECT** | **LANGUAGE** | **CONTENT** | **METHOD** | **ACTIVITIES** | **L/SKILL** | **INS.MAT** | **REF** | **REM** |
| 1 | 1 | Measures | Length, Mass and capacity | Measuring  Length in cm.  And mm | The learner -Measures  -Records  -Reads  -Identifies  -Lists  -Draws | The learner  Reads and uses the following vocabulary correctly  -measure  -Centimetres  -Millimetres  -Length  -Width  -Height | Measuring length in cm & mm.  The learner use their geometrical instruments like rulers to measure the length, width & thickness of objects &record their findings in the table as shown below   |  |  |  | | --- | --- | --- | | Obj. | length (cm) | length (mm) | | Desk | 120cm | 1200mm | | G .set |  |  | | C.B |  |  | | Bench |  |  | | Window |  |  | | Demonstration  Discussion  Discovery | Measuring  Recording  Reading | Creative thinking  Effective communication  Problem solving | Mathematical  Geometrical instruments | New  Mk Bk.6 pg 312 |  |
|  | 2 |  | Conversion of metric units |  | Converting the metric units  Recording different metric units | Millimetres mm  Centimetres cm  Decimeters dm  Metres m  Decameters dm  Hectometres hm  Kilo metres km  Metric units  Conversion | Table showing the conversion of metric units  Km Hm dm m Dm Cm Mm  1 0 0 0 0 0 0  1 0 0 0 0 0  1 0 0 0 0  1 0 0 0  1 0 0   1. 0     Changing kilo metres to metres  1.change 3 km to metres  Using the above table  1km = 1000m  3km = (1000 x3 )  = 3000m. | -do- | -do- | -do- | -do- | New primary math Bk.6  Pg 113  Understanding math Bk. 6  Pg 152 |  |
|  | 3 | Measure 2 | Length | Conversion of metric units | The learner  Changes the following metric units  i)metres o cent metres  ii)centi metres to millimetres | The learner  Reads and uses the given vocabulary below correctly  -metric units  -divides  -Multiply  -convert  -change | Note :  1.When converting the metric units from big to small, we multiply  2.When changing the metric units from small o big ,we divide | Discussion discovery  Demonstration | Change the metric units from small to big & vice versa | Creative thinking  Effective communication | A chart showing a table of conversion  Chalk board illustration | New MK primary math Bk 6  Pg 214-315 |  |
|  | 4 |  |  | Changing square metres to square centimetres (cm2) | Square metres (m2) to square centimetres (cm2)  Dm2 to m2 | -square | Example 1  Change 2m2 + cm 2  Note 1 m = 100cm  1m x1 m =(100x100) cm2  = 10,000cm2  2m2 =(2 x10,000) cm2  = 20,000cm2  Example 2  Express  4km2 as m2  1km = 1000m  1km x 1km = 1000m x1000m  =1,000,000 m2  4km2 =(4 x1000,000)m2  = 4,000,000m2 | -do- | -do- | -do- | -d- | New Mk primary math Bk.6 pg 317 |  |
|  | 5 |  |  | Finding perimeter. | -adds  -measure  -calculate | Distance around perimeter  Units | Perimeter is the distance around an object.  Example  Work out the perimeter of the figure below.  10cm    13cm  5cm  15cm  P2 =s + s + s + s  =(15+13+10+5)cm  =(28+15)cm  **= 43cm** | -do- | Drawing  Measuring  Adding | -do- | Desks  Ruler  Chalk board  Books  Window  Frames  Notice  Board | New MK .Bk.6 primary math pg 6 119-121 |  |
| 2 | 1 | Measure 2 | Perimeter circumference | Finding the circumference by measuring | The learner  Measures  Records  Collects  Compares | The learner  Reads and uses the new vocabulary correctly  -Distance around  -Circular object  Circumference | Find the circumference by measuring: (practical work).  -Using string or a banana fibre &  Tie around any of the circular objects.  Qns.  -using metre ruler to find the distance around the circular object by measuring the string used around the circular object  -The length measured using a ruler is the circumference of the circular object. | -do- | -do- | -do- | -do- | New Mk Bk. 6 pg 324-325 |  |
| 2 | 3 | Measures | Circumference | Finding  P1 | The learner  -measures  Compares  -Divides | The learner  Reads and uses the vocabulary below  Correctly  -P1  -Diameter  -Circumference  -measure. | Finding Pi  Procedure.  1.Get any circular object  -Use the string & rural  To measure a distance around the object (circumference )& record the result  -Use the same string to measure the middle length of the object  (Diameter)  -Divide the length of the circumference by the length of the diameter.  = circumference =P ί  Diameter  Circumference ÷ diameter =Pί  = C =∏  D  The symbol for p ί= ∏  The limits of pi are =3.14, 3 1/7, 22 7  Since circumference = ∏  Diameter  Then –  Circumference = ∏ diameter  Then C = ∏  D  D x C = ∏ x D  D  C = ∏D | Experimentation  Demonstration  Discovery  Explanation. | Measuring  -Recording  -Comparing  -Dividing  -Evaluating | Creative thinking  Effective Communication  Critical thinking  Problem solving | Circular objects  Like  -plates  -cups  -Tins  -Tyres  -Rim  Other  String  Metre  ruler | New Mk Bk.6 pg 325 |  |
| 2 | 4 | Measures | Circumference | Finding the circumference | The learner  -Multiplies  -Divides | The learner  Writes ,Reads & uses the given vocabulary correctly e.g.  -Diameter  -Circumference  Radius | Finding the circumference  Example  The diameter of a circle is 14 cm long, What is its circumference  Soln.  C =∏D    = 22 x 14 cm  7  = (22 x2cm)  = 44cm.  Note radius = D  2  Also C = 2∏r | Discussion  Discovery  Explanation | Multiplying  Divides | Creative  Thinking  Problem solving  Critical thinking | Drawn chart  -chalk board | Understanding math Bk. 6  Pg 256  257.  Ne w MK BK. 6  Pg 38. |  |
|  | 5 |  | Area | Area of square | Arrange, multiply | -square  Area | A square is a four sided polygon with all sides equal  Area of a square = s x s =S2  Example 6m  6m 6m    6m  Area = s x s  = 6cm x 6cm  = 36 cm2 | -do- | -do- | -do- | -do- | Mk .Bk. 6  Pg 329 |  |
| 3 | 1 |  |  | Finding one side of a square | -do- | -do- | Example:  The area of the square below is 64cm2 find the length of each side  S x S = 4  √S2 =√ 64  4 =64 cm  = 8cm  One side – 8cm |  |  |  |  | New MK Bk. 6  Pg 330 |  |
| 3 | 2 | Measures | Area | Area of a rectangle | The learner  -Drawn  -Reads  -Simplifies | The learner  Reads and uses the vocabulary below correctly  -Rectangle  -Length -Width  -Area  -Multiply | Example  A rectangle is 10cm long and 5 cm wide. Find its Area  Solution ;  Width = 5cm  Length =10cm  A = length width  = (10 x 5)cm2  = 50cm2 | Discussion  Demonstration  Question and answer | Drawing  Reading  Answering oral questions | Problem solving | Critical thinking | New MK Bk. 6 pg 331 |  |
|  | 3 |  |  | Finding the side of rectangle when area is given | -do- | -do- | **Example**  The area of a rectangle is 56cm2  If its length is 8cm, Find its width  Area = 56cm2Soln.    Area = 56cm2 - w    8cm  Length x width = Area  8cm x W = 56cm2  ~~8~~wcm = 56cm2 xcm  8cm 8cm  W = 7cm |  |  |  |  | New Mk. Bk 6 pg 333 |  |
|  | 4 |  |  | Finding sides area & perimeter |  |  | ABCD is a rectangle.  A (2 x- 5)cm B  (x-2) cm  D C  ( x+ B) cm  I)find the value of X  ii)Find the width and the Length  iii)find the Area of the figure  iv) find its perimeter | Demonstration  Question & answer | -Solving  - Drawing | Effective communication  Creative  thinking  critical thinking | Chalk board illustration | New MK. Bk.6  Pg 336-335 |  |
| 3 | 5 | Measures | Area | Finding the area of the shaded part of a rectangle | The learner  -Draws  -shades  -identifies  -simplifies  -multiplies  -adds | The learner  Uses the least vocabulary correctly  Example  -shaded  -regions  Inner  -outer  Area  Subtract  Area big  Area small  Length  width | Example  Find the area of the shaded part below  4cm  6cm  6cm 9cm  10cm  Area of the inner rectangle =L x W  =(6 x 4)cm2  = 24cm2  Area of the shade part =  Outer Area – Inner Area  = (90- 24) cm2  =  66cm | Discussion  Demonstration | Drawing  Solving  Written exercise  13:25  No, 1-3 | Effective communication  Creative thinking  Critical thinking | Manila cut out  Chart drawn  Chalk board illustration | New MK .Bk. 6  Math  Pg 336-337 |  |
| 4 | 1 |  |  | More Area of shaded parts of rectangle |  |  | **Example**  Given the rectangle below ;  2cm  5cm  2cm 8cm 2cm  2cm  Length of the outer =(2+ 8+2)cm  =2+8+2 =12cm  Width of the outer =(2+5+2)cm  = 9cm  Outer Area = L x W= 12 x9= 108cm2  Inner Area =L x W =8x 5 =40cm2  = 108cm2 – 40cm2  = 68cm2 | -do- | -do- | -do- | -do- | Mk bk.6 pg 337 |  |
| 4 | 2 | Measures | Area | Area of a triangle | The learner  -drawn  -identifies  Answer oral questions | The learner  Correctly reads and uses the vocabulary below  -Height  -Base  -Area  -Triangles | A triangle structure  Height hypotenuse(H)  (h)  Base (b)  Area of a triangle = ½ x b x h  Example  Work out the area of the Triangle below  A  A  6 cm  B C  12cm  Area = ½ x b x h  but b = 12cm  H= 6cm 3  Area =( 1 x ~~6~~x 12)cm2  2  = (3 x12 )cm2  = 36cm2 | Demonstration  Discovery  Question and answer | Identifying  Drawing  Written exercise  13: 26 | Effective communication  Creative thinking  Problem solving | Chalk board illustration |  |  |
|  | 3 |  |  | Finding one side of a triangle when Area is given | -do- | -do- | Example:-  Find the base of a triangle whose Area is 60cm2 and the height is 12cm.  ½ x b x h= Area  ½ x b x12cm =60cm2  6b cm = 60cm2  6bcm = 60cm2  10  ~~6~~bcm = ~~60cm~~ x cm  ~~6~~ ~~6~~  B = 10cm  The base = 10cm | -do- | Written exercise 13:27  No. 1-10 | -do- | -do- | Mk Bk 6  339-340 |  |
| 4 | 4 | Measures | Area | Finding base or height by comparing | The learner  -Draws  -Identifies the heights  -Compare  -Separates the triangles | The learner  Correctly writes, Reads and use the vocabulary below  -separating –height  -base  -compare | Example  ABD is a triangle. AC and BE are heights of the same triangle. BD =12cm, AC= 10cm, BE = 8cm. Find the length AD  A  A  10cm    E  8cm  B D  C  ……………………………………….  12cm  By separating  A A  base  10cm or  8cm  B D B D  Area 1. = Area 2.  = ½ x bh  =( ½ x 12 x 10 )cm2  =(6 x10)cm2  = 60cm2  Area 2 ½ bh = Area 1  4  = ½ x b x~~8~~cm = 60cm2  4bcm = 60cm2  4bcm = 60cm  4cm 4cm  The length AD = 15cm. | Illustration  Demonstration  Discussion  Explanation  Discovery  Question and answer | Drawing  Separating  Written exercise  13:28 | Critical thinking  Creative thinking  Problem solving  Effective communication | Manila cut out  Chalk board illustration. | New Mk. Bk 6  Pg 341-342 |  |
|  |  |  | Area | Area of combined figures | The learner draws the combined figures  Separates the figures  Finds the area | The learner reads, writes the length of the given parts  6cm | Find the area of the figure below.  4cm  8cm  10cm | Class discussion  Demonstration  Guided discovery | Drawing the given figures  Answering the given  exercise | Critical thinking  Dividing or sharing | Manila cut out | A new mk mtc bk 6 pg 343 |  |
| 4 | 5 | Measures | Area. | Area of a triangle | The learner  -Draws  Names /marks  -Identifies  -Separates | The learner  Reads, writes the new vocabulary correctly  i.e.  -Trapezium  -parallel | Structure of a trapezium  a  right angled  h trapezium  b  h = height of the trapezium  a = short parallel side  b = long parallel side  Area = ½ x h (a + b) | Discussion  Demonstration  Question and answer | Drawing  Written exercise  13:30 | Effective communication  Critical thinking | Manila cut out  Chalk board  Illustration | New Mk. Bk. 6 pg 344-345 |  |
| 5 | 1 |  |  | Finding one side of a trapezium given the Area |  |  | Example  The area of a trapezium is 60cm2 the height is 4cm and one of the parallel sides is 10cm. Find the length of the second parallel side.  = ½ x h(a + b) =Area  ½ x4 (a+10) = 60cm2  2(a+10)= 60cm2  =2xa +2x 10 =60cm2  = 2a +20 =60cm2  =2a +20cm = 20=60-20  ~~2~~a = 40  ~~2~~ 2  A= 20cm  The second parallel side = 20cm | -do- | -written exercise 15:31 | -do- | -do- | New mk Bk pg 346 |  |
|  | 2 |  |  | Finding the area of the parallelogram |  | Parallelograms | H=7cm  B= 12cm.  Area = base x height  = b x h  = ( 12 x7)cm2  = 84 cm2 | -do- | Written  Exercise  13:32 | Problem solving | -do- | New Mk. Bk. Pg 346-347 |  |
| 5 | 3 | Measures | Area | Total surface area of a box (cuboids) | The learner  -Reads  -Relates the edges  -Writes  -Calculates | The learner  Reads ,writes and uses the vocabulary correctly  -Surface.  -faces  -Edges  -Total  -Cuboid | Total surface area is the sum area of all the faces in a box (cuboid)  Thus : Area of all the six faces  Example  Work out the total surface area of the box below:-  2cm  4cm    6cm  Separating  1 40 2 40 3 40 4 40 5 406 2  = 6 x4+ 6x4+6x2+4x2+6x2  =(24+24+12+8+8+12) cm2  (48 +40 )cm2  = 88cm2 | -do- | Written exercise |  |  |  |  |
|  | 4 |  |  | Total surface Area of cube. |  | -cube | A cube has got all sides equal  Thus :- six equal faces with the same Area  Area of a cube  =6s2  =6 xs2 | -do- | Written  Exercise  13:34 | -do- | -do- | New mk. Bk. Pg 350 -351 |  |
| 5 | 5 | Measures | Area | Finding the side of a cube when total surface area is given | The learner  -divides  -finds the square root | The leaner Reads ,writes and uses the given vocabulary correctly  -square numbers  -square roots  - prime factorize | The total surface area of cube is 384cm2 find the length of each side:  Solution  6s2 = T S A  6s2 = 384 cm2  6 6  S2 = 64cm2  = 64cm2  =  S = 8cm  S = 2 64  2 32  2 16  2 16  2 8  2 4    2 2  1    S = 2 x2 x 2  S = 8cm | Discussion  Demonstration | Prime factorizing  Written exercise  13:36 | Creative thinking  Critical thinking  Problem solving | Chalk board  Illustration | New Mk. Bk.6  Pg 351 |  |
| 6 | 1 |  |  | Volume | Calculating  Volume of the a regular prism  (Rectangular prism) | Volume prism  Rectangular  Cuboid | Volume of a cuboid =  =length x width x height  V= (L x w x h)  Cubic units. | -do- | Written exercise  13:38 | -do- | -do- boxes | New Mk. 6 pg 356 |  |
|  | 2 |  |  | Finding the side of a rectangular prism |  | Volume  Prism  Rectangular cuboid. | The volume of rectangular prism below is 180cm3. Find its heights.  L    4cm  9cm  Lx w z h = Y  9 x 4 x h = 180  3bh =180  3b 36  N = 5cm. | -do- | Written exercise 13 :39 | -do- | -do- | New Mk. Bk. 6 pg 1357 |  |
| 6 | 3 | Measures | Volume | Finding volume in litres | The learner  -measures  -Counts  \_Reads | The learner  Reads, writes and uses the newly learnt vocabulary E.g.  litres  Capacity | No. of litres = volume (cn3)  Example  A rectangular tank is 30 by 60cm by 90 cm find its volume in litres  Volume of a tank = L x w x H  = (3o x 60 x 90 )  1 litre =1000cm3  No. of litres  = 3~~0~~ x 6~~0~~ x 9~~0~~cm3  1~~000~~cm3  3 x 6 x9  = 162 litres | Experimentation  Demonstration  discussion | Measuring  Recording  Written exercise  13:40 | Problem solving  Critical thinking  Creative thinking | -Tins  -Jerry cans  -chalkboard illustration  -Water | New mk Bk. 6 pg 358 |  |
|  | 4 |  |  | More about volume |  |  | Example  Given the tank below has 72 litres  Of water.  80cm  h  60cm  40cm  i) Find the value of h.  L x w x h = 72  1000  40 x 60 x h =72  1000  1000 x 2400h = 72 x1000  2400  24~~00~~h = ~~72000~~  2~~400~~  ~~2400~~  H = 30 cm  ii) How man Litres are needed to fill the tank? | -do- | Written exercise  13:41 | -do- | -do- | New mk primary math Bk. 6  Pg 359-160 |  |
|  |  | Measures | Volume | Packing cubes and cuboids | The learner interprets the questions  Calculates correctly | The learner writes, reads and uses the vocabulary,  length, width, layers | How many cubes of types  A can be packet in box A | Class discussion  Guided discovery  Demonstration | Answering questions  Packs the cubes in the cuboid | Problem solving  Packing  Creating  space  Effective communication | Cubes, boxes, cuboids | A new Mk MTC bk 7 |  |
| 6 | 5 | Measures | Capacity | Changing litres to  Millimetres | The learner  -Measures  -records | The learner  Correctly writes , Reads and uses vocabulary below  -Litres  -Deciliters  -centiliters  -Milliliters | Table showing the relationship of the units  L DL CL ML  1 0 0 0  1 0 0  1 0  1    Note : 1L = 1000ml  Note ;  When changing from big to small, we multiply and while changing from small o big, we divide.  1Litre to millimeters and vice versa. | Discovery  Discussion  Question and answer | Measuring  Recording  Written exercise  13:43  Number 1-6 each | -problem solving  -critical thinking | -Water  -Jerry cans  -Beakers  Syringe. | New Mk. Bk.6 pg 362-368 |  |
| 7 | 1 |  | Weight | Conversion of kg to gand vice versa |  | -kilograms  -Grams | Note 1 kg =1000grams  Big small = Multiplying  Small big = Dividing | -do- | Written exercise 13:45 and 13:47 | -do- | Scale for measuring | Mk Bk. Pg 66. |  |
|  | 2 |  | Metric operation | Addition of different measures |  |  | e.g.1. Adds 4km +800m  2. Adds 9kg +500g  3. Adds 15L+ 500Mc.  Note: when given different units, change to make all units before.  Adding (change the bigger to a small unit then add). | -do- | Exercise  13:47 | -do- | -do- | Mk Bk. 6  Pg 367-168 |  |
| 7 | 3 | Measures 2 | Metric operations | Subtractions different measures | The learners  -subtracting | The learner  Reads and uses the vocabulary correctly | Example  1. Subtract 9litres -350mls.  2. 85cm from 4m  **NB** change the bigger units to the small one then subtract | Discovery  Discussion  Explanation | Written exercise  13:48 | Creative thinking  Problem solving | Chalk board illustration | New Mk. Bk 6 pg 368-369 |  |
|  |  |  |  | Multiplication of different units &division of different units | Multiplying |  | Example  1.multip 18 km by 7  2. 12m x 9  Division  Example : 1. 36kg ÷ 4  2. 60ml ÷ 10  Note: The units are not changed & they remain the same units then the operation is done normally. | -do- | Written exercise 13;49,13:30 | -do- | -do- | -do-  Pg 369-370 |  |
|  | 4 | Geometry | Clines, angles and geometric figures | Construction of circle & regular polygons | The learner  -Measures  -Constructs  -draws | The learner  Reads, writes and uses the vocabulary below correctly  -Construction  Regular polygon  Circle  Radius  Equilateral triangle  Regular Hexagon  Square  Area | Through the guidance of a teacher, the learner construct the following regular polygon in a circle  1.An equilateral triangle  2.Regular hexagon  3.Asquare | Demonstration  Discovery  Question and answer | Drawing  Measuring  Written exercise 12:1&12:2  No. 1-4 each | Creative thinking  Problem solving | Geometrical set instruments | New Mk. Bk 6  Pg 255-257 |  |
| 7 | 5 | Geometry | Construction | Constructing a square given a side | The learner  -constructs  -measures | The learner  Reads ,writes & uses the vocabulary  Below correctly  -measures  -length  -perpendicular  Pair of compasses  Arcs | Procedures  -Draws a line segment AB 3 cm apart  -Construct a perpendicular line at A and another at B  -Open a pair of compasses to a radius of 3cm, place the compass needle at A & B respectively as you draw a arks o cut the perpendicular line at D and C  -Figure ABCD is a square of length 3cm. | Demonstration  Discussion  Discovery  Discovery | Measuring drawing  Labeling  Written exercise 12:4 | Problem solving  Critical thinking  Creative thinking  Accuracy | Geometry set  Equipment | New mk. Bk. 6 pg 258. |  |
| 8 | 1 |  |  | Constructing a regular Pentagon in a circle |  | Pentagon  Centre angle. | Centre angle of a polygon  = 3600  No. of sides  Pentagon =3600 =720  5  Procedure:  1.Draw a line & at mark point 0  2. At point 0, Draw an angle of 72 using a protractor.  3. Open a pair of compasses to a given radius using 0 as a Centre; draw a circle to cut the arms of the angle.  4. Join point A & B and taking AB as the length of the pentagon mark off other sides on the circumference of a circle.  5.Join adjacent point BCDEA  The figure drawn is a regular pentagon. | -do- | Written exercise 12:5 | -do- | -do- | New mk. Bk.6 pg 259 |  |
| 8 | 2 | Geometry |  | Constructing regular polygon of a given side | The learner  -measures  -draws  -constructs  -names  -identifies  Reads | The learner  Reads, writes and uses the vocabulary below correctly  -polygon  Pentagon  -Hexagon  -Interior angles  -Exterior angles | Example: Regular pentagon of sides 3cm  Procedure:-  1. Construct the interior and exterior angles and sketch them with side 3 cm.  2.use a ruler and protractor and construct the side of 3cm and interior angles of 108 0 or exterior -720 (continue the remaining steps ) | Discussion  Discovery | Measuring  Constructing | Effective communication  Creative thinking  accuracy | Geometrical set equipment | New Mk.Bk.6  Pg 260 |  |
|  | 3 |  |  | Constructing a regular octagon | Octagon |  | An octagon is a 8sided polygon  Procedures  1 .Draw a circle of a given radius and on it draws a diameter of AB.  2.Draw a perpendicular bisector of AB and name its point s of intersection with the circle C and D  3.construct diameter to bisect angle AOC and AOB to meet the circle at EF and GH respectively  4.Join the adjacent points | -do- | -do-  Exercise 12:8 | -do- | -do- | New Mk. K. pg 263. |  |
|  | 4 |  | Parallel lines | Angle properties of parallel lines  Co-interior  Co-exterior |  | -Parallel  -Transversal lines  -co Interior angles  -Co- exterior angles | Co-exterior and Co- interior angles  P Transversal  A1  line  Parallel  B1 lines  Q  Angle A, and Angle B, are co –interior angles  Angle p and Angle Q are co- Exterior angles.  Angle A, +Angle B,= 1800 (co-interior)  Angle P+ Angle Q =1800 (co- exterior angles ) | -do- | Written  Exercise  12:11 | -do- | -do- | Mk Bk. 6 pg 264-268 |  |
| 8 | 5 | Geometry | Parallel line | Corresponding angles | The learner  -draws  -Identifies  -states the properties | The learner  -Reads, writes and uses the vocabulary below correctly  -Corresponding | Corresponding angles  A1  B1  La1 and Lb1Corresponding angles  LA1 = LB1  Corresponding angles in parallel lines are equal | Discovery  Discussion  Demonstration | Written exercise 12i:12i | Creative thinking  Problem solving | Chalk board illustration | New Mk Bk. 6 269-270 |  |
| 9 | 1 |  |  | Alternate angles |  | Alternate angles | They include  I)Alternate interior  ii) Alternate Exterior.  y  b1  a1  z  La1 and Lb1 =Alternate interior  L and L z = Alternate exterior  La1 =Lb1 (Alternate interior)  Ly = L z (Alternate exterior ) | -do- | Written exercise 12 :13 | Critical thinking | -do- | MK. Bk. Pg 270 |  |
|  | 2 |  |  | Recognizing angles formed by parallel lines |  |  | › >1100  100  a b  ›  I).a +1000 = 1800 (co-interior angles)  a+100-100=1800-100  a= 800  ii)b+1100=1800 (co-interior angles)  b+1100-110 =180- 110  b =700  a +b +x =180(< s on straight line)  80+70+x=1800)  80+70+x =1800  150 +x =1800  X =180-150  X =300 | -do- | Written exercise  12;14 | -do- | -do- | Mk. Bk. 6  Pg 272-273 |  |
| 9 | 3 | Geometry | Perpendicular lines | Constructing perpendicular lines on a given point | The learner  -draws lines  -construct a perpendicular | The learner  Reads ,writes and uses the vocabulary below correctly  -Lines segments  -perpendicular | 1.Droping a perpendicular at a given point  2-Consructing a perpendicular by bisecting a given line | Discussion  Demonstration | Critical thinking  Problem solving  Creative thinking | Written exercise  12:15 and 12 ;16 | Geometrical set equipment | New mk. Bk.6 pg 274-275 |  |
|  | 4 |  | Construction | Constructing special angles I.e. 900,600 |  |  | These angles are called special because to construct other angles, You need their knowledge.  Note: = 1200 is opposite of 600 |  | -do- |  | -do- | Mk. Bk. 6 276-279 |  |
|  | 5 |  |  | Bisecting angles | Drawing | Bisecting | Bisecting an angle means dividing that angle into two Equal angles  e.g. when drawing 300, We bisect 600, 45from 900 | -do- | -do- | Write exercise  12:22 | -do- | Mk. Bk.6 pg 280-281 |  |
| 10 | 1 |  |  | Construction of angles |  | Sketch | Note  1.Always draw a sketch  2. Mark the given length and angles on the sketch.  3. Draw accuracy always start with the longest side.  4.Complete your drawing  5. Measure the length and angles asked for. | Question and answer | -do- | Written exercise  12:28 | -do- | Mk.Bk.6 pg 28-192 |  |
| 10 | 2 | Geometry | Pythagoras theorem | Properties of a right angled triangle | The learner  -applies Pythagoras theorem to find the length of a right angled triangle | The learner  Reads and uses the following vocabulary correctly  -base  Height  Hypotenuse  Pythagoras | Aright angled triangle is a triangle which has one of its angles equal to 900  5sq  4sq h H  B 5sq  4sq  3sq  3sq  In the above , the square on the two legs (short) sides of a right angled triangle Equal to the square of the hypotenuse (long side)  leg 1 +leg 2 =hypotenuse  (3x3)+(4x4)=(5x5)  9 +16 = 25  25 =25    Using the triangle below:  Height hypotenuse  (h) (H)  Base (b)  b x b +h x h =H x H  b2 + h2 =H2 | Discussion  Discovery  Question and answer | Identifies the sides of the right angled triangle | Creative thinking  Critical thinking  problem | -Paper cut out  -Chalk board  Illustration | New Mk. Bk.6  Pg 292-300 |  |
| 10 | 3 | Geometry | Sold figure | Prisms and properties | The learner:-  -states the properties of the prism  -identify quadrilateral and their classifications | The learner  Reads and uses vocabulary below correctly  -Triangular prism | **PROPERTIES OF PRISMS.**  Figure properties  cylinder  circular face  curved faces    Edge  vertex  Edge  rectangular  face  Triangular  prism triangular face  cuboid /cube  vertex  face  Edge  No. All prisms have got a uniform cross section  Properties of pyramids.  E.g. pyramids get their names according to its base.  E.g. Triangular based pyramid.  Vertex    Face  Edge | Discussion  Discovery  Question and answer | Counting  Identifying | Effective communication  Creative thinking  Critical thinking | Solid figures  e.g. –prisms  pyramid | New Mk. Bk. 6 pg 301 |  |
|  |  | Numeracy | Integers | Revision | The learner identifies integers represented by the given arrows  Orders integers  Defines integers | The leaner reads the integers  Spells the vocabularies like negative and positive and so on | Definition of integers  Integers are made up of negative, positive numbers and zero  Arrows on the number line  Ordering integers | Class discussion  Demonstration  Guided discovery | Identifying the arrows  Drawing number lines  Plotting integers on the number line | Problem solving  Arranging objects | A number line  Ruler | A new mk mtc bk 6 pg 196 – 197  Fountain primary mtc bk 6 pg 173 |  |
|  |  |  |  | Addition of integers | The learner adds integers without using a number line  Adds integers using a number line | The learner reads and uses the vocabularies correctly  Forward backward | Add: +5 + +2  +4  +5 + 2  = +7  Add +3 + +4 using a number line  +3  0 1 2 3 4 5 6 7 8  +3++4 = +7 | Class discussion  Demonstration  Guided discovery | Plotting integers on the number line  Adding integers | Effective communication  Counting correctly  Accuracy | A number line | A new mk bk 6 pg 198 – 199  Fountainpr mtc bk 6 pg 175 |  |
|  |  |  |  | Subtraction of integers | The leaner subtracts integers with and without using a number line | The leaner reads and uses the vocabulary forward and backward | Subtrct -6 – -2  -6 – -2 = -6 + 2  = -4  Sutbract +4 – 3 using a numberline  Add +3 + +4 using a number line  +4  +3  0 1 2 3 4 5 6 7 8  +1  +4 – 3 = +1 | Subtracting integers | A new MK mtc bk 6 pg 202  Fountain pr mathematics bk 6 pg 178 |  |
|  |  |  |  | Multiplication of integers | The learner multiples integers | Reads and uses the vocabulary correctly strides and steps | Multiply  +2 x +5  Add +3 + +4 using a number line  0 1 2 3 4 5 6 7 8 9 10  +2x+5 = +10 | Class discussion  Guided discovery  Demonstration  Problem solving | Drawing a number line  Counting the strides and steps | Accuracy | Ruler  A number line | A new mk mtc bk 6 pg 205 |  |
|  |  |  |  | Application of integers | The learner interprets the word problems on integers | The leaner reads the word problems | Kato borrowed sh. 500 but paid back sh. 300. How much moneyd es Kato have?  -sh 500 + sh. 300 = - sh. 200  Kato has a debt of sh. 200 |  | Solving word problems on integers | Problem solving  Paying debts | Texts books  Money  Books | A new mk mtc bk 6 og 206  Fooutani pr mtc |  |
|  |  |  |  | Application of finite systems | The leaner interprets the word problems | The leaner reads the word problems | It today is Friday, what day of the week, will it be after 23days?  Day + No of days = \_\_ (fintie 7)  5 + 23 = \_\_\_ (finte 7)  5 + 23 = 28(finte 7)  28 ÷ 7 ( 4 remo (finite 7)  0 stands for Sunday  They day will be Sunday |  |  | Problem solving  Accuracy  Proper planning |  | A new mk mtc bk 6 pg 252 |  |
|  | 4 | Algebra |  | Substitution | Substitutes values for the unknown | -Variables  -subtraction  -Equation. | Note: To substitutes means replace  Example: Given that b= 6, find b +8. b+8 = 6+8  =14  ii)if p= 8, q = 6+ 8, r=2  what is pqr  pqa = p x q x r  = 8 x 6 x2  = 96  Give that b=6,c =-3, a =2  Find bc = b x c  C a  = 6 x -3 = -18 =-9  2 2 | -do- | Identifying unknown  Identifying like terms  Finding its value of the unknowns  Written exercise e 14.7 | -do- | Real object E.g.  -Oranges  -mangoes  -beans  -apples  etc | New Mk. Bk. Bk.6 pg 376. |  |
| 4 | 5 | Algebra |  | Like terms | The learner  -collects like terms  -Simplifies like terms. | The learner  Reads ,writes and uses correctly vocabulary below  -like terms  -Positive  -negative  -Sum | Note: 1.We can add like terms and get one single term.  E.g. r +r +r  = 2r + r = 3r  1 We can multiply terms to a single term.  e.g. 3h x3 = 9h  3x2 x4x2 = 12x4 | Discussion | Critical thinking  Effective communication  Problem solving | Identifying unknown  identifying like terms  Finding the value of the unknown | Chalk board  Illustrations | New mk. Bk. 6 pg 371 |  |
| 13 | 1 |  |  | Unlike terms |  |  | We can get an expression for the Sam of the unlike terms.  e.g. Collecting like terms  = Simplify x +y+2x +4y  =x +2x+y +4y  = 3x +5y  2.Simplify 3x+ 6y –x-2y  =3x-x+6y-2y  =2x+4y  Note: A term takes a sign before it  Any term without assign is a positive | Question and answer  -do- | -do- | Collecting like terms  Witten exercise 14:10 & 14 :11 | Different objects e.g. –mangoes  -oranges  Paper cuts  Books etc | New mk, Bk. 6 378:379 |  |
|  | 2 |  |  | Removing brackets | Multiply every term inside the bracket by the factor outside | -Brackets | Example  1.Apositive sign before the bracket does not affect /change any sign inside the brackets  E.g. 2 (x +3) or 2( x – 3)  = 2x X +2 x3 = 2(x-3)  = 2 x+ 6. = 2x -6.  2.Anegative sign before the brackets changes every sign inside the brackets  e.g. -(4x- -6) or – 3(4x+6)  =-3 x4x- -3 x6 -3 x 4x +- x6  =-12x+ 6 = -12-18 | -do- | -do- | Written exercise  14:12` | -do- | New mk. Bk. 6 pg 380 |  |
| 13 | 3 | Algebra |  | More about removing brackets | The learner  -Identifies the like terms  -Opens the brackets  -Simplifies the equation involving Brackets | The learner  Reads, writes and uses the vocabulary below correctly  -Opening brackets  -like terms  -Factors  -Negative and positive | Example  1.Remove the brackets  3(2 +x) +2(x+4)  =3x2+3x X+2xX+ 2x 4  =6 +3x+2x+8  = 6 +8+3x+2X  = 14 +5x  2.3(x+3) -2(x-1)  3xX+3x3-2xX+- 2x1  3x+9-2x+2  3x-2x+9+2  X +11. | Discussion  Question and answer  Discovery | Opening bracket –identifying and collecting like terms | Critical thinking  Problem solving  Creative thinking  Effective communication | Real objects  E.g. mangoes  Oranges  Etc .  Chalk board illustration | New mk. Bk. 6 pg 382 |  |
|  | 4 |  | Powers | Finding the product of power |  | Powers  Base  Indices | Multiplication  In multiplication of powers of the same base, We add its indices  Examples  4y2 x3y4  =( 4 x3)(y2 xy4)  =12(y2 +4)  12(Y6)  12 XY6  =12Y6  Ii)Division  Example  Simplify p 5 p3 =p5  P3  =p x p x p x p x p =p2  P x p x p  We can also divide the powers of the same base by subtracting the indices | -do- | -do-  Written exercise 14:18  14:19  14:20  4 numbers each | -do- |  | Mk. Bk. 6 pg 383-384 |  |
| 13` | 5 | Algebra |  | Finding the unknown addition | The learner  -Forms equation  -Solves the equation | The learner  Reads, writes and uses the vocabulary below correctly  -Equation  -Solves  -Simplify | Examples  1.Solves p +4 =12  =p+4-4=12-4  =p =8  Word problem  A manda had some pineapples she bought 8 more and had 11pineapples altogether. How many pineapples had he before  = before more Total  X + 8 = 8  X + 8 - 8 = 11- 8  X =3 | Discussion  Discovery  Question and answer | Forming and solving Equations  Written exercise  14 :27  14:22 | Effective communication  Creative thinking  Creative thinking | Counters  Chalk board  Illustration | Mk. Bk.6 pg 285 |  |
| 14 | 1 |  |  | Subtraction |  |  | Example =b – 3 = 8  =b -3+3=8+3  B = 11  Word problem  Katemba bought some eggs, On his way home, 4egge broke and he was left with 8 eggs. How many eggs did he buy?  Equation = bought broke reminder  H – 4 =8  H -4+4-8  N =12 eggs | -do- | Written exercise 14;23  & 14:24 | -do- | -do- | mk; Bk. 6 pg 286 |  |
|  | 2 |  |  | Multiplication and Division |  |  | 1 A number multiplied by 3 gives 52. Find the number  Let the number be x  X x 3 =52  13 x = 52  13 13  X = 4  The number is 4 | -do- | Written exercise  14:25 & 14-26 | -do- | -do- | New mk. Bk. 6 pg 187 |  |
| 14 | 3 | Algebra |  | Solving Equations | The learner  Forms and solve s the questions | The learner  Reads ,writes and uses the vocabulary below correctly  -twice as old as  -Ages  -Older  -Younger  -Thrice etc. | Example  1.solve 3g +g +2g =30  = 6 = 30  6 6  G =5:  2. Musa is twice as old as Anna  Their total age is 18years.  How old is Anna?  2x +x 18  2x+x = 18  3x = 18  3 3  X =6 years  Anna 6yrs  Musa = 2x = 2 x6 =12yrs  12years | Discovery  Question and answer | Comparing the age  Forming equations  Solving equations formed | Critical thinking  Problem solving  Creative thinking | New Bk.6  Pg 388 | Chalkboard illustration |  |
|  | 4 |  |  | Finding the unknown involving fractions |  | Fractions | Example  1.solves a =13  2  =2 x a =13 x2  2  A = 26.  2.find the number of oranges that can be divided by 5 boys so that each boy gets 6  Oranges.  Let the number be y  Y =6  5  ~~5~~ x y = 6 x5  ~~5~~  Y = 30 | -do- | -do- | -do- | -do- | New mk. Bk. 6 pg 389 |  |
| 14 | 5 | Algebra |  | Forming and solving Equations | The learner  -reads the equation given.  -form the equation according to the question given /read.  -Solves the equations formed | The learner  Reads, writes and uses the vocabulary below correctly  -Older  -years  -Age  -An Equation | Example  A boy is 2 yr older than his sister, Their total age is 20yrs  How old is the sister.  Boy Sister Total  X+2 + x 20  X + 2 + x = 20  X + 2 - 2 = 20 -20  2x =18  2 2  X = 9yrs  The sister = 9yrs  2. The perimeter of the rectangle below is 24cm. find the value of x  x  4cm  L +W +L +W = P  X + 4 +x+4 =24  2x +8 = 24  2x = 24 - 8  2x = 16  2 2  X = 8. | Discussion  Discovery  Question and answer | Forming equation  Solving the equation formed  Written exercise  14:32  5 question each | Creative thinking  Problem solving  Critical thinking | Charts or cut out  Chalk board illustration | New Mk. Bk. 6 pg 390-391 |  |
| 15 | 1 |  |  | Solving Equations  Involving brackets. |  | -Brackets | Example : 1.solves  3(y +y ) =21  3y +12 =21  3y +12- 12 =21-12  3y 9  3 8  Y = 3  ii)5(y+1) -3(y-1) =14 2y = 6  5y + 5-3y +3 =14 2 2  2y + 8 = 14 y = 3  2y = 14 -8 | -do- | Written exercise  14 :33 | -do- | -do- | Mk. Bk.6 pg 192 |  |
| 15 | 2 | Algebra |  | More about equations | The learner  Solves the equation given | The learner  Reads, writes and uses the vocabulary below correctly  -Equations  -Brackets  -opening brackets | Example ;  Solves 4 x- 3 = x +6  =4x - x =6 + 3  3x = 9  3 3  X = 3 | Discovery  Discussion  Question and answer | Solving given equation | Critical thinking  Problem solving  Creative thinking | Chalk board illustration | Mk. Bk. 6 pg 393- 394 |  |
|  | 4 |  |  | More about equations | The learner  Solves the equation given | The learner  Reads, writes and uses the vocabulary below correctly  -Equation  -Brackets  -Removing  brackets | Example  In a rectangle, the length is twice the width and the perimeter is 24cm.  a)Find the actual length  b) find the actual width.  2x  X width x    Length 2 x X = 2x  L +W +L +W P  2x X +2x + X = 24  6x 24  6 6  X = 4cm. | -do- | -do- | -do- | -do- | Mk. Bk.6 pg 395 |  |