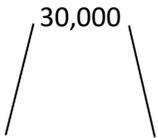
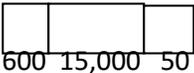
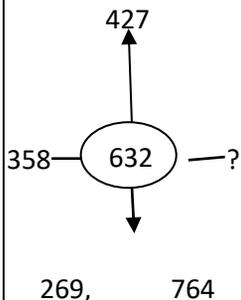


WEEK	TOPIC	PERFORMANCE OBJECTIVES	CONTENT	TEACHER'S ACTIVITIES	LEARNERS' ACTIVITIES	TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
<b>THEME: NUMBERS AND NUMERATION</b>							
1	Whole numbers	Learners should be able to:  1.Count in thousands and millions.  2. Apply counting of large numbers such as in population of states or country.  3.Solve quantitative aptitude problems related to thousands and millions.	1.Meaningful counting in thousands and millions  2.Quantitative reasoning  3.Identification of prime number less than 100	1.Guides learners to use abacus to form and read given numbers e.g. 895, 643 ....  2.Guides learners to design various practices for counting and ordering numbers in thousands and millions in words and figures  3.Guides learners to solve quantitative reasoning problem on counting in thousand and million e.g.	1.Form and read number using a abacus  2.Count and order numbers  3.Read and write numbers up to a million in word and figures  4.Solve problems of quantitative reasoning involving counting in thousand and millions  5.Find the factors of	Abacus, number chart and table of factor chart	Learners to:  1.Count in thousand and millions  2.Read and write numbers in words and figures  3. solve problems on quantitative reasoning involving counting in thousand and millions  4.Identify prime numbers from 1-100

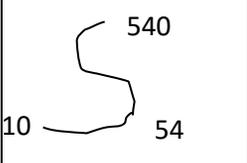
		4. Identify prime numbers less than 100		  <p>4. Guide learners to find factors of numbers ranging from 140, 100 in order, leading them to prepare a table for factor chart</p> <p>5. Guide learners to identify prime numbers in each set</p> <p>6. Guide learners to express numbers as product of prime factors</p>	number each set 6. Express numbers as product of prime factors		5. Express given numbers as product of prime factor
2	Fractions	Learners should be able to:	1. Percentages 2. Ratio	1. Guides learners to convert fraction to decimals and	1. Convert fraction to decimals and decimals to	Fraction decimals conversion charts, fraction	Learners to: 1. Change fraction to

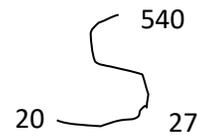
		<p>1.Change fractions to decimals and decimals to percentage and vice versa</p> <p>2.Solve quantitative aptitude problems related to percentage</p> <p>3.State relationship between fraction and ratio</p> <p>4.Solve quantitative aptitude problems related to ratio</p>	<p>3. Quantitative reasoning on ratio</p>	<p>decimals to percentage and vice versa</p> <p>2.Solve quantitative aptitude problems related to percentage</p> <p>3.Guides learners to state examples in which ratio is used</p> <p>4.Guide learners in solving problems on sharings</p> <p>5.Guides learners to determine the ratio of two numbers</p> <p>6.Guides learners to identify the relationship between ratio and fraction</p> <p>7.Guide learners to solve quantitative</p>	<p>percentage and vice versa</p> <p>2. Solve quantitative aptitude problems related to percentages</p> <p>3.State examples in which ratio is used</p> <p>4.Determine the ratio of two numbers</p> <p>5.Identify relationship between ratio and fraction</p> <p>6.Solve problems of ratio and fraction involving quantitative reasoning</p>	<p>percentage chart, decimal-chart percentage .</p> <p>Conversion charts, percentage decimal conversion chart, flash cards</p>	<p>decimal, decimal to percentage and vice versa</p> <p>2.State the relationship between ratio and fraction</p> <p>3.Solve quantitative reasoning problems on ratio</p> <p>4.Find the ratios between two numbers</p>
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				reasoning problems on ratio			
3	Multiplication	<p>Learners should be able to:</p> <ol style="list-style-type: none"> <li>1. Multiply a 3-digit number by a 3-digit number</li> <li>2. Solve quantitative aptitude problems on multiplication.</li> <li>3. Apply "of" as multiplication when dealing with fraction of whole number</li> <li>4. Multiply numbers by zero and one</li> </ol>	<ol style="list-style-type: none"> <li>1. Multiplication of a 3-digit number by a 3-digit number</li> <li>2. Quantitative reasoning multiplication</li> <li>3. Using the operation "of" as multiplication in fraction</li> <li>4. Multiplication of number by zero and one</li> </ol>	<ol style="list-style-type: none"> <li>1. Guide learner to multiply a 3-digit number by a 3-digit number e.g. <math>432 \times 132</math></li> <li>2. Guides Learners to solve quantitative aptitude problem on multiplication e.g. <div style="text-align: center;">  </div> </li> <li>3. Guides Learners to apply the meaning of "of" as multiplication such as: <math>\frac{1}{2}</math> of 18=9 or <math>\frac{1}{2} \times 18=9</math></li> </ol>	<ol style="list-style-type: none"> <li>1. Multiply a 3-digit number by a 3-digit number</li> <li>2. Solve given problems on quantitative aptitude problems on multiplication</li> <li>3. Bring their own bell to classes</li> <li>4. apply the meaning "of" as multiplication in a fraction</li> <li>5. interpret the given problems</li> <li>6. Solve problems of multiplication of numbers by 0 and 1.</li> </ol>	<ul style="list-style-type: none"> <li>-Card board</li> <li>-Chart showing quantitative aptitude problems on multiplication</li> <li>-Orange bell etc.</li> </ul>	<p>Learners to:</p> <ol style="list-style-type: none"> <li>1. Multiply 3-digit number by a 3-digit number</li> <li>2. Solve quantitative aptitude problems involving multiplication of 3-digit number.</li> <li>3. Solve given problem on the operation of "of" as multiplication in fractions.</li> <li>4. Solves problem on multiplication by 0 and 1</li> </ol>

				<p>4.give correct interpretation of zero and one as shown bellow</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>00 00</td> <td>2×3</td> <td>=6</td> </tr> <tr> <td>00</td> <td></td> <td></td> </tr> <tr> <td>00 00</td> <td>2 × 2</td> <td>=4</td> </tr> <tr> <td>00</td> <td>2 × 1</td> <td>= 2</td> </tr> <tr> <td></td> <td>0 × 0</td> <td>-0</td> </tr> </table>	00 00	2×3	=6	00			00 00	2 × 2	=4	00	2 × 1	= 2		0 × 0	-0			
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00 00	2 × 2	=4																				
00	2 × 1	= 2																				
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4	Multiplication (Contd)	<p>1.Multiply decimals by whole numbers</p> <p>2 .Multiply decimal fractions by whole numbers.</p> <p>3. Calculate squares of whole numbers more than 50 and square roots of perfect square greater than 400.</p>	<p>1. Multiplication of decimals by whole numbers</p> <p>2. Multiplication of decimal fractions by whole numbers</p> <p>3. Square of whole numbers more than 50 and square roots of perfect squares of greater than 400.</p>	<p>1. Guides the Learners to multiply the given numbers by zero and one.</p> <p>2. Guides Learners to solve the example as follows:</p> <p>(A) <math>2.86 \times 5</math></p> <p style="text-align: center;">or</p> $\begin{array}{r} 2.86 \\ \times 5 \\ \hline 14.30 \end{array}$	<p>1. Multiply given decimals by whole numbers.</p> <p>2. Carry out multiplication of decimal fraction by whole numbers.</p> <p>3. Find the square of given whole number more than 50.</p>	<p>Flip chart multiplication chart</p> <p>1. Charts of whole numbers more than 50 and perfect square greater than 400</p> <p>2. Charts on quantitative aptitude problems on square of members more than 50 and square root of</p>	<p>1.multiply given decimals by whole numbers</p> <p>2.multiply decimals fractions by whole numbers</p> <p>3.caculate the squares and square roots of given number more than 50 and greater than</p>															

		4. Solve quantitative aptitude problems involving squares of numbers more than 50 and square root of numbers greater than 400.		<p>B) <math>1.27</math> or <math>1.27</math> <math>\times 4</math> <hr/><math>5.08</math></p> <p>3. Guides Learners to solve problems on multiplication of decimal fractions by whole number.</p> <p>4. Guides Learners to find the square of given whole numbers more than 50</p> <p>5. Guides Learners to find the square root of perfect square of whole numbers greater than 400.</p>	4. Find the square  Root of a perfect square of a whole number greater than 400.  5. Solve more quantitative aptitude problems on square roots and square  of whole numbers.	numbers greater than 400	400 respectively  4. Solve quantitative aptitude problem of numbers more than 50 and square root of numbers more than 400.
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5	Division	<p>1. Divide numbers by 10, 20, and multiples of 10 up to 90.</p> <p>2. Solve quantitative aptitude problems involving division of number by 10 and multiples of 10 up to 900.</p> <p>3. Divide numbers by 100 and 200.</p>	<p>1. Division of numbers by 10, 20, -----90</p> <p>2. Quantitative reasoning on division</p> <p>3. Division by 100 and 200</p>	<p>1. Guides Learners to determine how many groups of 10, 20,30-90 are in a given number e.g. there are 3 groups of 10 in 30, thus <math>30 \div 10 = 3</math>.</p> <p>2.guides learners to identify that in multiplying by 10 the decimal point is shifted once to the left to obtain the result of division</p> <p>3.guide learners on how to solve quantitative problems on division</p> <p style="text-align: center;">  </p>	<p>1. Determine the number of groups to obtain 10, 20, 30-----90s! in a given number</p> <p>2. Apply the rule of shifting decimal points once to the left to obtain the result of divided number by 10.</p> <p>3.solve given problems on quantitative aptitude on division</p> <p>4.carryout division of number by 100 to200</p>	<p>1charts on division of number to 10 and multiples of 10 up to 90</p> <p>2.chart containing worked problems involving division of numbers by 100 and 200</p>	<p>Learners to:</p> <p>1.divide given number by 10 and multiples of 10</p> <p>2.solve quantitative aptitude problems involving -division of number by 10 and multiples of 10 up to 900</p> <p>3.solve given exercises on division by 100 and 200</p>
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4. Guide learners to divide numbers by 100 and 200 by shifting decimal point

i. twice to the left when dividing by 100.

ii. twice to the left when dividing by 200 and then divide by 2.

$$\frac{500}{100} = 5.00 = 5$$

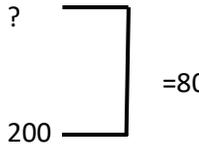
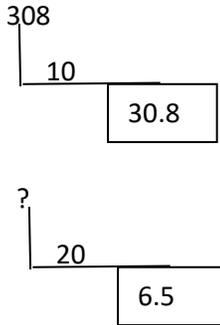
$$\frac{800}{200} = \frac{8.00}{2} = 4$$

6	Addition and subtraction	<p>Pupil should be able to:</p> <p>1.add and subtract numbers involving three or more digits</p> <p>2.add and subtract mixed fractions.</p> <p>3 solve quantitative aptitude problems involving addition and subtraction of fractions.</p> <p>4.add and subtract decimals fractions.</p>	<p>1.addition and subtraction of whole numbers involving three or more digits</p> <p>2.Addision and subtraction of mixed fractions and mixed numbers</p> <p>3.quantitative reasoning on addition and subtraction of fractions.</p> <p>4. Addition and subtraction of decimal fraction.</p>	<p>1.guide Learners to add or subtract columns under unit first, tens and hundreds e.g.</p> $\begin{array}{r} \text{Th H T U} \\ 5 \quad 6 \quad 7 \quad 4 \\ 3 \quad 4 \quad 6 \quad 0 \\ +2 \quad 5 \quad 7 \quad 0 \\ \hline \end{array}$ <p>2.guide learners to solve quantitative aptitude problem on addition and subtraction of fractions.</p> <p>3.guides to add or subtract numerator to get the sum</p> <p>4.guide learners involving quantitative aptitude problems involving addition</p>	<p>-Arrange counter into</p> <p style="text-align: center;">Th H T U</p> <p>2.carryout addition and subtraction of numbers</p> <p>3.carry out addition and subtraction of mixed numbers</p> <p>3.carry out addition and subtraction of mixed fractions.</p> <p>4. use I. C. M method to add mixed fractions.</p> <p>5. solve quantitative aptitude problems involving addition and</p>	Flash cards, abacus e. t. c fraction chart card board	<p>Learners to:</p> <p>Add and subtract numbers involving three or more digits</p> <p>2.solve problems on quantitative aptitude involving addition and subtraction of fractions</p> <p>3.add and subtract given fractions and mixed fractions</p> <p>4.solve quantitative aptitude</p> <p>4.Add and subtract given decimal fractions.</p>
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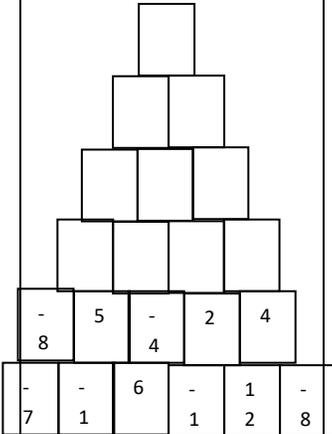
				and subtraction of fraction	subtraction of fractions.		
				5.guide learners to add decimals to fractions	6.add and subtract decimals fractions		
7		Mid	Term	Test			

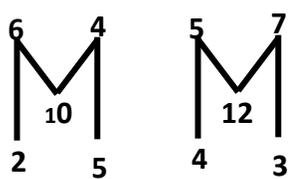
**THEME: BASIC OPERATIONS**

9	Addition and subtraction	<p>Pupil should be able to:</p> <p>1.solve quantitative aptitude problems involving division of numbers by 100 and 200.</p> <p>2.divide decimals by</p>	<p>1. Quantitative reasoning on division of numbers by 100 and 200.</p> <p>2. Division of decimals by multiples of 10 up to 900.</p> <p>3. Quantitative reasoning on decimals.</p>	<p>1. Guides Learners to solve quantitative aptitude problems involving division by 100 and 200</p> <p>e.g.</p> $\begin{array}{l} 500 \\ 500 \end{array} \Bigg] =5$	<p>1. Observe charts provides.</p> <p>2. Solve given problems in quantitative aptitude involving division by 100 and 200.</p> <p>3. Divide given decimals by</p>	Quantitative aptitude charts with worked examples.	<p>Learners to:</p> <p>1. solve quantitative aptitude problems involving division by 100 and 200.</p> <p>2. Solve given problems on division decimals by</p>
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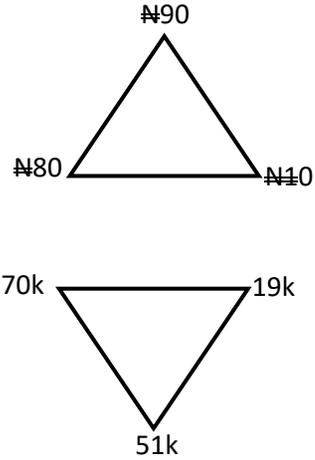
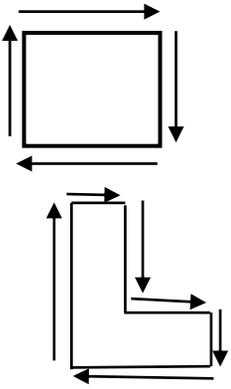
		<p>multiples of 10 up to 900</p> <p>3.solve quantitative aptitude problems on decimals.</p>		<div style="text-align: center;">  </div> <p>2. Guides Learners to divide decimals by multiples of 10 up to 90 by shifting decimal points e.g.</p> <p>A) <math>\frac{32.5}{10} = 3.25</math></p> <p>B) <math>\frac{710.4}{20} = \frac{71.04}{2} = 35.52</math>.</p> <p>3. Guides Learners to solve quantitative aptitude problems such as:</p> <div style="text-align: center;">  </div>	<p>multiples of 10 up to 90.</p> <p>4. Solve given quantitative aptitude problems.</p>		<p>multiples of 10.</p> <p>3. Solve quantitative aptitude problems involving division of decimals by multiples of 10.</p>
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9.	Addition and Subtraction	Learners should be able to: i. Divide decimal by 100 and 200.  ii. Divide whole numbers by 2-digit numbers.	1. Division of decimal by 100 and 200.  2. Division of whole number by 2-digit numbers.	1. Guides learners to divide decimals by 100 and 200 e.g. $\frac{236.53}{100} = 2.3$  2. Guide learners in the division of 2 whole number as follows:  Divide 357 by 21 $\begin{array}{r} 17 \\ 21 \overline{) 357} \\ \underline{21} \phantom{00} \\ 147 \\ \underline{147} \\ 0 \end{array}$	Divide decimal fractions by 100 and 200.  2. Solve the division of whole numbers by 2-digit numbers.	Division charts of worked examples on division of decimals	Learners to :  i. divide given decimal by 100 and 200.  2. solve problems on division by 2-digit numbers.
10	Use of number line in addition and subtraction.	Learners should be able to:  1. Add and subtract	1. Addition and subtraction of positive and negative integers.	1. Guide learners to add and subtract numbers using number line.	1. Add and subtract numbers using the number line.	Ruler, charts etc.	Learners to:  1. add and subtract numbers using

		<p>numbers using number line.</p> <p>2. Solve problems on quantitative aptitude involving addition and subtraction on the number line.</p>	<p>2. Quantitative reasoning problem involving number line.</p> 	<p>2. Guide learners to solve problems on quantitative aptitude using number line such as complete the pyramid.</p>	<p>2. Solve problems on quantitative aptitude using the number line.</p>		<p>the number line.</p> <p>2. solve problems on quantitative aptitude using number line.</p>
12 & 13	Revision and Examination						

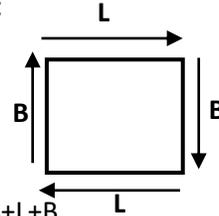
WEEK	TOPIC	PERFORMANCE OBJECTIVES	CONTENT	TEACHER'S ACTIVITIES	LEARNERS' ACTIVITIES	TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
<b>THEME: ALGEBRAIC PROCESSES</b>							
1	Open Sentences	Learners should be to: 1. find the missing number in open sentences. 2. Use letter to represent boxes in open sentences. 3. Find the missing numbers that the letter represents. 4. Interpret each box in a Mathematical statement represent a letter that could be found. 5. Use letters to represent the missing number in quantitative	Open sentences quantitative reasoning on open sentences.	1. Guide learners to use letter to represent boxes e.g. $\square + 5 = 8$ $A + 5 = 8$ 2. Guide learners to solve problems of the forms. $2t - 7 = 5$ 3. Guide learners to solve quantitative aptitude problems on open sentences such as:  	1. Use letters to represent boxes in open sentences. 2. Find the unknown 't' in the given statement. 3. Solve quantitative aptitude problems on open sentences.	Flash cards and charts.	Learners to: 1. Use letters to represent open sentences. 2. Solve problems on open sentences. 3. Solve given quantitative aptitude on open sentences.

		aptitude problems and find their values.					
<b>THEME: MENSURATION AND GEOMETRY</b>							
2	Money	Learners should be able to: 1. compare Nigerian units of money with pounds sterling, American dollars and some West African Countries: 2. Solve problems on profit and loss.	1. Nigerian Naira, Pound Sterling, Dollars, Ghana Cedis and Pesewa, Sierra Leone's leone and cent etc. ii. Money: social transactions, home, banks, post office, market	1. Guide learners to view charts showing currency and its conversion rate of Naira to other currencies. 2. Guide learners to explain that the demand (i.e market force) for any currency will determine the conversion rates, hence fluctuation of conversion rates. 3. Guide learners to convert from one currency to another. 4. Guide the learners to carry out profit and loss. Simple interest, commission, discount and the transactions in the offices, bank and market.	1. Carry out conversion of one currency to the other as contained in the chart. 2. Link rates of conversion to the purchasing power quoted in foreign currencies. 3. Calculate profit and loss.	Nigerian banknotes and coins, Foreign currencies pictures and charts showing picture of currency rates. 2. Stamps, Nigerian bank notes and coins, models of money, shopping corner with good and their carry prize tag.	-identify various currencies. 2. Convert one currency to another. 3. Explain the implications of the rate of conversion on purchasing of the people.
3	Money (Contd)	1. Solve problems on profit and loss, simple interest, commission, discount in the	1. Money, social transactions, home banks. Post office, market.	1. Guide learners to carry out profit and loss, simple interest, commission, discount and the transactions in	1. Calculate profit and loss, simple interest, commission, discount and the transaction	1. Stamps, Nigerian Bank notes and coins, models of money, shopping corner with goods and their carry prizes tag.	1. List their individual needs and ways of meeting them accordingly.

		<p>post offices, market etc.</p> <p>2. Solve quantitative reasoning problems on money.</p>	<p>2. Quantitative reasoning on money transactions.</p>	<p>the offices, bank and market.</p> <p>2. Guide learners to solve quantitative reasoning problems on money e.g.</p> 	<p>in the offices, banks and market.</p> <p>2. Solve quantitative reasoning problems on money.</p>	<p>2. Chart of solved examples on quantitative reasoning problems on money.</p>	<p>2. Calculate profit and loss simple interest and discount rates et.c</p> <p>3. Solve quantitative reasoning problems on money.</p>
4	Length	<p>Learners should be able to:</p> <p>1. find the perimeter of regular shape such as square, rectangle, trapezium and polygon.</p> <p>2. Find circumference of a circle when the radius is given.</p>	<p>1. Perimeter of regular shapes e.g. square, rectangle, trapezium and polygon.</p> <p>2. Circumference of a circle of given radius.</p>	<p>1. Leads learners to discover that perimeter means total distance round a shape.</p> 	<p>1. Find the perimeter of regular shapes.</p> <p>2. find the perimeter of given objects.</p> <p>3. Write properties of a circle e.g. radius, diameter and circuit e.g. radius, diameter and circumference</p>	<p>1. Chart containing regular shapes. -concrete objects that are circular in shapes, charts containing circle and its properties.</p>	<p>Learners to:</p> <p>1. Find perimeter of regular shapes.</p> <p>2. State properties of circle.</p> <p>3. calculate the circumference of circles with given radius.</p> <p>4. Calculate circumference of a circle with given diameter.</p>

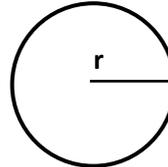
3. Establish the relationship between circumference and diameter and find circumference.

2. Guide learners to use the formula.  
3. (L+B) in calculating perimeter of a square or rectangle as shown below:

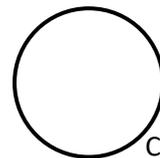
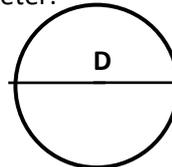


$$\begin{aligned} P &= L+B+L+B \\ &= L+L+B+B \\ &= 2L + 2B \\ &= 2(L+B) \end{aligned}$$

3. Guide learners to identify properties of circle such as radius.



Diameter:



Circumference

4. Guide learners to find the circumference of a

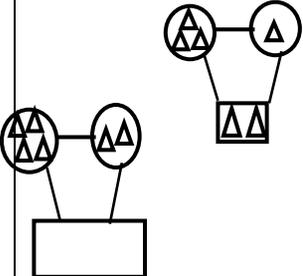
in their exercise books.

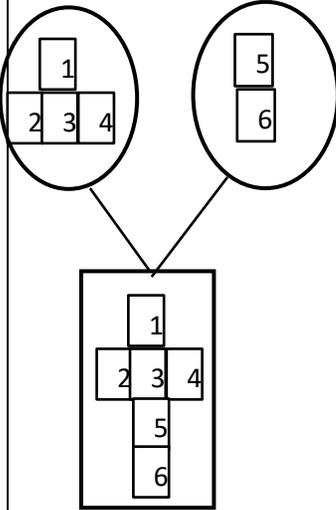
				circle of radius using given circumference. $=2\pi r$ 5. Find the circumference of a circle when the diameter is given $C=\pi d$ .			
5	Weight	Learners should be able to: 1. Solve words problems on weight. 2. Solve problems on quantitative aptitude involving weight.	1. Word problems on weight involving kg and grams. 2. Quantitative reasoning on weight.	1. Guide learners to identify the weight of common goods in the environment and carry out addition, subtraction, multiplication and division involving weight of goods. 2. Guide learners to solve quantitative aptitude problems related to weight.	Divide the total weight of learners in the class by the total number of learners in class. 2. Solve problems on quantitative aptitude involving weight.	Weighing scale chart of weight of common goods, a bag of cement, a bag of groundnut, a bag of rice etc.	1. Add the weights of given objects. 2. Solve problems on quantitative aptitude involving weights.
6	Time	Calculate average speed of moving object.	Average speed.	1. Guide learners to define average speed as $Average\ speed = \frac{Distance}{Time}$ 2. Guide learners to solve problems on average speed. 3. Guide learners to solve word problems involving average speed.	1. Define average speed. 2. Find average speed in given problems. 3. Solve word problems involving average speed, etc.	Drawing of speedometer and cardboard showing some examples of average speeds.	Learners to find average speed of given word problems.
7	Mid Term Test						
8	Temperature	Learners should be able to:	1. Familiarity with	Guide learners to read thermometer to	Read thermometer	Thermometer data on meteorological	Learners to:

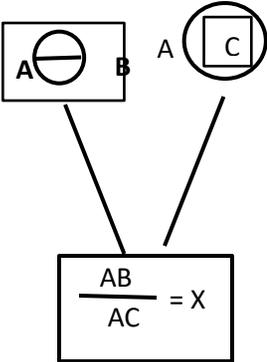
		1. Compare degrees of hotness of various objects and areas (locations) in Degree Celsius. 2. Identify the usefulness of temperature to our daily life.	temperature of objects and towns in degrees (Celsius °c).	ascertain temperature of people, objects and locations.	to ascertain temperature of people, objects and locations.	information on some towns.	1. read temperature of given objects. 2. compare temperatures of objects, town and locations.
9	Area	Learners should be able to: Calculate the area of a right angle triangle.	Area of a right angled triangle.	1. Guide learners to divide rectangle into two halves along the diagonal to form two equal right-angles triangles. 2. Guide learners to derive the formular for area of right-angled triangle i.e. $\frac{1}{2}$ of area of rectangle or $\frac{1}{2}$ (base x height). 3. Guide learners to calculate the area of the right-angled triangle.	Derive and use formular to calculate the area of a right angled-triangle.	Charts etc.	Learners to find the area of a given right-angled triangle.
10.	Volume	Learners should be able to: 1. use cubes to find the volume of cuboids and cube.	1. Volume of cuboids and cubes. 2. Volume of cuboids: $V=L \times B \times H$ cubic unit.	1. Guide learners to count the number of cubes unit that makes up a cube or cuboids. 2. Guide learners to find volume in unit cubes.	1. Count number of unit cubes in cuboids. 2. Write the volume in cubic units.	Unit of cubes etc. Unit of cube and cuboids.	Learners to: 1. Find volumes in cube units. 2. find given volume of cuboids using $L \times b \times h$ .

		<p>2. Use formula to find volume of cuboids.</p> <p>3. Identify the different between cubes and cuboids.</p>		<p>3. Guide learners to measure length, breadth and height of cuboids and find the volume in cubic units.</p>	<p>3. Use unit cubes to build more cuboids.</p> <p>4. find volume of cuboid using the formula;  <math>V=L \times b \times h</math>  Cubic unit.</p>		
11		Revision					
12	Examination						

WEEK	TOPIC	PERFORMANCE OBJECTIVES	CONTENT	TEACHER'S ACTIVITIES	LEARNERS' ACTIVITIES	TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
<b>THEME: MENSURATION AND GEOMETRY</b>							
1	Capacity	Learners should be able to: 1. find the relationship between litres and cubic centimetres. 2. identify the use of litre as a unit of capacity and the established between litres and $\text{cm}^3$ .	Litres $\text{cm}^3$ 1 litre = $1000\text{cm}^3$	1. Guide learners to compare the volume of the open cube and that of the litre containers. 2. Guide learners to identify litre as a unit of capacity and the relationship between litre and $\text{cm}^3$ .	1. Compare capacity of the container and the cube of dimension. 10cm x 10cm x 10cm. 2. Identify that 1 litre – $1000\text{cm}^3$ . Establish the relationship between litre and $\text{cm}^3$ .	Litre, capacity container, cube of dimension 10cm x 10cm x 10cm.	Learners to: 1. Construct their own cube of dimension. 10cm x 10cm x 10cm. 2. Compare the liquid content of their model with that of a litre container and comment.
2	Structure of Earth	Learners should be able to: 1. Describe shape of earth. 2. Compare volume of a sphere and cuboid.	Shape of earth and volume of sphere.	1. Guide learners to describe the shape of earth usually globe. 2. Puts the globe in an open box of dimension L X B X H 3. Guide learners to identify that the volume of globe is less than that of enclosing cuboid.	1. Describe earth as a spherical object. 2. Calculate volume of the cuboids. 3. Show that the volume of the globe is less than the volume of the cuboid enclosing it.	Globe, cardboard, box oranges etc.	Learners to say which is bigger, volume of sphere or volume of the cuboid that encloses it.

3	Plane shapes	Learners to be able to: 1. identify parallel and perpendicular lines. 2. solve quantitative aptitude problems on plane shapes.	1. Parallel and perpendicular lines. 2. Quantitative aptitude on parallel and perpendicular lines.	1. Guide learners to explain parallel and perpendicular line using edged of the board. 2. Guide learners to identify parallel and perpendicular lines using objects in the classroom. 3. Guide learners to use symbols for parallel line and perpendicular lines. 4. Guide learners to solve quantitative aptitude problems using symbols for parallel lines and perpendicular lines.	1. Identify parallel and perpendicular lines in selected objects. 2. Label parallel lines and perpendicular lines. 3. Solve quantitative aptitude problems with symbols for parallel and perpendicular lines.	2 and 3 dimensional shapes.	Learners to: 1. Identify parallel and perpendicular lines. 2. Solve quantitative aptitude problems on parallel and perpendicular lines.
4	Plane Shapes	1. State some properties of triangles including equilateral, isosceles and right-angled triangle. 2. Solve some quantitative aptitude problems involving triangles.	1. Triangles: ❖ Equilateral ❖ Isosceles. ❖ Right angled- triangles 2. Quantitative reasoning on triangles.	1. Guide learners to discover the features of equilateral triangle, isosceles triangle and right-angled triangle. 2. Lead learners to solve some quantitative aptitude problems e.g. 	State the features of equilateral triangle, Isosceles triangle and right-angled triangle. 2. Solve some quantitative aptitude problems on triangle.	Models of : equilateral isosceles, right angled triangle.	1. state two properties each of an equilateral, isosceles and a right-angled triangle. 2. solve given quantitative aptitude triangle problems.

5	3-Dimensional Shapes.	Learners should be able to: 1. State properties of 3-dimensional shapes such as cubes, cuboids, pyramids etc. 2. Solve quantitative aptitude problems related to 3-dimensional shapes such as cubes, cuboids, and pyramids etc.	1. Cube, cuboid, pyramid and a square base and triangular base. 2. Quantitative reasoning related to 3-dimensional shapes.	1. Guide learners to identify properties of 3-dimensional shapes such as cube, cuboid and cylinder etc. 2. Guide learners to solve quantitative aptitude problems related to cube, cuboid and pyramid such as: 	1. State properties of cubes, cuboids and pyramids. 2. Solve quantitative aptitude problems related to cube, cuboid and pyramid.	Graph paper, cardboard sheets, models of 3-dimensional shapes etc.	Learners to: 1. give the properties of 3-dimensional shapes. 2. Solve given quantitative aptitude problems relating to three dimensional shapes.
6	Circle	Learners should be able to: 1. identify -radius -diameter -circumference of a circle.	1. Circle ii. Radius iii. Diameter iv. Circumference	1. Guide learners to measure the distance from the center of any point on the circumference and vice versa.	1. Measure the distance from the centre to any point on the circumference.	Strips of cards, pencils, pin, trays sand of a given circle, etc.	Learners to: 1. Draw circles of different radius and obtain diameter for the circle.

		2. Solve quantitative aptitude problem on circle. 3. identify and determine a radius on the diameter of the circumference of a circle.	2. Quantitative reasoning on circle.	2. Guide learners to measure distance round the circle to determine the circumference. 3. Guide learners to solve some quantitative aptitude problems circles. 4. Guide learners to identify the relationship between radius and diameter of the circles. 	2.State the relationship between radius and diameter. 3. Determine the distance round the circle and determine the circumference of the circle. 4. Solve some quantitative aptitude problems on circle.		2. Obtain the circumference of the circles with different radius. 3. Solve some problems on quantitative aptitude relating to circles.
7	Mid Term Test						
<b>THEME: EVERYDAY STATISTICS</b>							
8	Data Presentation	Learners should be able to: 1. prepare a tally of data. 2. Draw bar graphs and pictograms of	1. Further work on pictograms and bar graphs. 2. Use tally and tables.	1. Guide learners to select data on test results of learners in the class. (full mark 25) or select data from the Mathematical game or activity designed by the	1. Select and record Learners score. 2. Use tally to represent the information.	1. Data on test results. 2. Data on weather. 3. Data on election. 4. Biological data. 5. Teachers game or activity etc.	Learners to: 1. prepare and present a tally of data and put it in a tabular form. 2. Draw pictogram and

		information collected locally.		<p>teacher e.g. from a card or other games.</p> <p>2. Guide learners to use tally to represent the information.</p> <p>3. Guide learners to identify and represent the information using data from events on daily life activities.</p> <p>4. Guide learners to represent data on pictogram.</p> <p>5. Present data generated by tally in a tabular form.</p> <p>6. Guide learners to represent data on bar graphs.</p>	<p>3. Present the data in tabular form.</p> <p>4. Represent the information using pictogram.</p> <p>5. Represent the information on the bar graph.</p>		<p>bar graph of a given data.</p> <p>3. Prepare a tally of a set of data.</p> <p>4. Construct pictogram and bar graph of a given data.</p>
9	Measures of central tendency.	<p>The learners should be able to:</p> <p>1. Find the mode of given data.</p> <p>2. identify the mode as applicable in daily life activities.</p>	Mode of a given data.	<p>1. Lead the learners to get data from their environment and ask them to calculate the mode.</p> <p>2. Guide learners' data and asks them to prepare a tally of a data and find the mode.</p>	<p>1. Prepare tally of data and record the mode.</p> <p>2. Carry out experiment to get data from the environment and find the mode.</p>	Data chart etc.	Learners to find the mode of a given set of data.

		<p>3. Calculate the mean of a given data.</p> <p>4. identify mean of a set of data in daily life activities.</p> <p>5. Solve quantitative aptitude problems on mode and mean of data.</p>					
10.	Measure of central tendency	<p>Learners should be able to:</p> <p>1. Calculate the mean of given data.</p> <p>2. appreciated the concept of mean of a set of date in daily activities.</p>	<p>1. Mean of data.</p> <p>2. Quantitative reasoning.</p>	<p>1. Guide learners to calculate the mean from a given data.</p> <p>2. Guide learners to calculate mean from data gathered from their environment e.g. average number of students in each arm of the class.</p> <p>3. Lead the learners to solve quantitative reasoning problems.</p>	<p>1. Calculate the mean from the given data.</p> <p>2. Solve quantitative reasoning problems on mode and mean.</p>	Data chart	<p>Learners to:</p> <p>1. Calculate mean of given data.</p> <p>2. Calculate the mean from data gotten from the environment daily activities.</p> <p>3. solve quantitative reasoning problems on mode and mean of given data.</p>
11	Tossing coins and throwing of die.	<p>Learners should be able to:</p> <p>1. record in data from experiments on</p>	<p>1. Tossing of coins and throwing of dice.</p>	<p>1. Guide learners to toss a coin 20 times and record the number of times a head appears</p>	<p>1. Tossing the coin 20 times and records the number of times a head</p>	Coin, die.	<p>Learners to perform:</p> <p>Experiments as directed by the teacher and record the</p>

		<p>coin tossing and dice throwing.</p> <p>2. identify various chance events in their daily life activities.</p>	<p>2. Other chance events.</p>	<p>and the number of times a tail appears.</p> <p>2. Guide learners to prepare a tally for their results.</p> <p>3. Guide learners to throw a dice 24 times and record occurrence of 1, 2, 3, 4, 5,6.</p> <p>4. Guide learners to prepare tally for their result.</p> <p>5. Guide the learners to identify various chance event in their daily life activities.</p>	<p>appears and number to times the tail appears.</p> <p>2. Prepare a tally of heads and tails (20 tossed).</p> <p>3. Throw the die 24 times and record the number of times of occurrence of 1,2,3,4,5 and 6.</p> <p>4. Prepare tally from the results.</p> <p>6. Identify various chance events in their daily life activities.</p>		<p>result by tallying</p>
12	Examination						