

SCHEME OF WORK FORM ONE MATHEMATICS TERM ONE YEAR 2019								
WK NO.	L/ NO	TOPIC/ SUBTOPIC	LESSON / SPECIFIC OBJECTIVES	TEACHING / LEARNING ACTIVITIES	MATERIALS / RESOURCES	REFERENCES	REMARKS	
1-2		ADMISSION OF FORM ONE STUDENTS						
3	1	NATURAL NUMBERS Numbers in figures and words.	By the end of the lesson, learners should be able to: Identify, read and write (large) natural numbers in figures and words.	Brain storming. Oral practice. Written exercise.	Place value chart.	<i>KLB BOOK 1</i> <i>Pg 1</i>		
	2	Place value and total value of numbers.	Determine the place value and total value of digits in numbers.	Oral practice. Written exercise.	Place value chart. Bank deposit slips.	<i>KLB BOOK 1</i> <i>Pg 1</i>		
	3	Rounding off numbers.	Round off numbers to the nearest ten, hundred, thousand, etc.	Oral exercise. Worked examples. Written exercise.		<i>KLB BOOK 1</i> <i>Pg 2-3</i>		
	4	The four basic operations	Add and subtract numbers. Define a product, quotient, dividend and divisor. Solve numerical / word problems on arithmetic operations.	Solving numerical / word problems / examples. Oral and written exercises.		<i>KLB BOOK 1</i> <i>Pg 6-9</i>		

	5	Odd, even and prime numbers.	Identify odd, even and prime numbers.	Q/A , oral exercise, written exercise.		<i>KLB BOOK 1 Pg 9</i>	
	6	FACTORS Numbers in factor form.	By the end of the lesson, learners should be able to: Express composite numbers in factor form and vice versa.	Q/A. Factor tree diagrams. Oral & written exercises.		<i>KLB BOOK 1 Pg 10-11</i>	
4	1	Factors in power form.	Express factors in power form.	Drawing factor tree diagrams. Oral & written exercises.		<i>KLB BOOK 1 Pg10-11</i>	
	2	DIVISIBILITY TEST (D.T.) D.T. of a number by 2, 3, 4.	By the end of the lesson, learners should be able to: Test the divisibility of a number by 2, 3, 4.	Worked examples. Oral exercise. Written exercise.		<i>KLB BOOK 1 Pg 12-14</i>	
	3	D.T. by of a number 5, 6, and 8.	By the end of the lesson, learners should be able to: Test the divisibility of a number by 5, 10, and 6.	Guided discovery. Oral exercise. Written exercise.		<i>KLB BOOK 1 Pg 15-17</i>	
	4	D.T. of a number by 9	By the end of the lesson, learners should be able to: Test the divisibility of a number by 9	Through examples discover D.T. of a number by 9. Exercise.	Puzzles and games.	<i>KLB BOOK 1 Pg 18-19</i>	

	5	D.T. of a number by 11.	By the end of the lesson, learners should be able to: Test the divisibility of a number by 11.	Guided discovery. Exercise.	Puzzles and games.	<i>KLB BOOK 1 Pg 20-21</i>	
	6	G.C.D./ HCF. GCD of a set of numbers using divisors.	By the end of the lesson, learners should be able to: Find the GCD of a set of numbers by listing divisors .	List factors of numbers and choose common ones/ the GCD. Written exercise.	Containers of different capacities.	<i>KLB BOOK 1 Pg 22-23</i>	
5	1	GCD of a set of numbers using factors.	By the end of the lesson, learners should be able to: Find the GCD of a set of numbers by listing factors .	Worked examples. Written exercise.		<i>KLB BOOK 1 Pg 22-23</i>	
	2,3	Applications of HCF/ GCD.	By the end of the lesson, learners should be able to: Apply GCD to real life situations. Solve word problems	Worked examples. Supervised practice. Written exercise.	Containers of different capacities.	<i>KLB BOOK 1 Pg 22-23</i>	

	4	L.C.M. Multiples of numbers.	By the end of the lesson, learners should be able to: List multiples of numbers. Identify the LCM. of numbers.	Q/A: Multiples of given numbers. Exercise.		<i>KLB BOOK 1 Pg 24-25</i>	
	5	L.C.M. Factor method.	By the end of the lesson, learners should be able to: Find L.C.M. of numbers using factor method.	Oral practice. Worked examples. Exercise. Exercise review.		<i>KLB BOOK 1 Pg 25-26</i>	
	6	L.C.M. Index method.	By the end of the lesson, learners should be able to: Find L.C.M. of numbers using power method.	Oral practice. Worked examples. Exercise.		<i>KLB BOOK 1 Pg 25-26</i>	
6		MID TERM					

7	1	L.C.M. – Applications.	By the end of the lesson, learners should be able to: Solve problems on practical applications of L.C.M.	Exercise involving ringing of bells, flashlights and containers of different capacities.	Containers of different capacities.	<i>KLB BOOK 1</i> <i>Pg 26-27</i>	
	2	INTEGERS The number line.	By the end of the lesson, learners should be able to: Identify integers on a number line.	Explain meaning of + ve and - ve integer with zero as the reference point. Oral exercise: + ve or – ve numbers: statements in word form.	Thermometers. Chart: Temperatures at different zones.	<i>KLB BOOK 1</i> <i>Pg 28-29</i>	
	3	Addition of integers.	By the end of the lesson, learners should be able to: Add positive integers. Add positive and negative integers.	Give examples where we add + ve and – ve integers e.g. Addition of marks, debts, expenses, etc. Written exercise.		<i>KLB BOOK 1</i> <i>Pg 30-31</i>	
	4	Subtraction of integers.	By the end of the lesson, learners should be able to: Subtract an integer from another. Add negative integers.	Give examples where we deal with sum of negative numbers, e.g. amount of debts, loans, etc. Work examples and written exercise.		<i>KLB BOOK 1</i> <i>Pg 31-35</i>	
	5	Multiplication of integers.	By the end of the lesson, learners should be able to: Obtain products of + ve and – ve factors.	Worked examples. Supervised practice.		<i>KLB BOOK 1</i> <i>Pg 35-37</i>	

				Exercise.			
	6	Multiplication of integers.	By the end of the lesson, learners should be able to: Obtain product of two negative numbers.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1</i> <i>Pg 35-37</i>	
8	1	Division of integers.	By the end of the lesson, learners should be able to: Work out division of integers where one integer is negative.	Guided discovery. Worked examples. Exercises.		<i>KLB BOOK 1</i> <i>Pg 37-40</i>	
	2	Division of integers.	By the end of the lesson, learners should be able to: Work out division of integers where both integers are negative.	Guided discovery. Worked examples. Exercises.		<i>KLB BOOK 1</i> <i>Pg 37-40</i>	
	3	Order of operations. -Addition and subtraction.	By the end of the lesson, learners should be able to: Carry out combined operations on integers.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1</i> <i>Pg 37-40</i>	
	4	-Multiplication and division.	By the end of the lesson, learners should be able to: Carry out combined operations on integers.	Worked examples. Written Exercise.		<i>KLB BOOK 1</i> <i>Pg 37-40</i>	

	5	-Brackets and 'of' operation.	By the end of the lesson, learners should be able to: Carry out combined operations on integers.	Worked examples. Written Exercise.		<i>KLB BOOK 1 Pg 37-40</i>	
9	6	SHORT TEST					
10	1	FRACTIONS Proper and improper fractions	By the end of the lesson, learners should be able to: Identify proper and improper fractions. Write an improper fraction as a mixed number and vice versa.	Oral practice. Oral exercise. Written exercise.		<i>KLB BOOK 1 Pg 41-42</i>	
	2	Equivalent fractions.	By the end of the lesson, learners should be able to: Identify equivalent fractions.	Exercises – both oral and written. Review of exercises.	Chart-pie chart.	<i>KLB BOOK 1 Pg 42-43</i>	

3	Comparing fractions.	By the end of the lesson, learners should be able to: Arrange given fractions in ascending / descending order.	Review L.C.M. of numbers and equivalent fractions. Worked examples and written exercise.		<i>KLB BOOK 1 Pg 43-44</i>	
4	Addition / subtraction of fractions.	By the end of the lesson, learners should be able to: Add / subtract fractions.	Review L.C.M. of numbers and equivalent fractions. Worked examples and written exercise.		<i>KLB BOOK 1 Pg 45-48</i>	
5	Multiplication of fractions.	By the end of the lesson, learners should be able to: Multiply two or more fractions.	Q/A: Review improper fractions. Examples Written exercise.		<i>KLB BOOK 1 Pg 48-52</i>	
6	Division of fractions by fractions/ mixed numbers.	By the end of the lesson, learners should be able to: Work out division involving fractions.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1 Pg 52-54</i>	

11	1	Both addition and subtraction operators.	By the end of the lesson, learners should be able to: Compute sums and differences involving positive and negative fractions.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1 Pg 54-57</i>	
	2	-Multiplication / division involving negative fractions.	By the end of the lesson, learners should be able to: Compute products and divisions involving positive and negative fractions.	Examples. Supervised practice. Written exercise.		<i>KLB BOOK 1 Pg 54-57</i>	
	3	Inner and outer brackets.	By the end of the lesson, learners should be able to: Work out fractions enclosed with both inner and outer brackets.	Explain order of operations involving two brackets. Examples and exercise.		<i>KLB BOOK 1 Pg 54-57</i>	
	4	The 'of' operation.	By the end of the lesson, learners should be able to: Perform the 'of' operation on positive and negative fractions.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1 Pg 54-57</i>	
	5	The 'bar' operator and other operators.	Perform the 'bar' operation on positive and negative fractions.	Explain order of operations involving the bar. Examples and exercise.		<i>KLB BOOK 1 Pg 54-57</i>	

	6	Several operators.	By the end of the lesson, learners should be able to: Solve a variety of problems involving fractions.	Problem solving on mixed exercise including word Problems.		<i>KLB BOOK 1 Pg 54-57</i>	
12& 13	<i>END OF TERM ONE EXAMS</i>						

	<i>FORM ONE MATHEMATICS</i>		<i>TERM TWO</i>		<i>YEAR 2019</i>		
1	1	DECIMALS Decimals and fractions.	By the end of the lesson, learners should be able to: Convert fractions to decimals and vice versa.	Examples. Oral exercise.		<i>KLB BOOK 1 Pg 58-61</i>	
	2	Mixed numbers in decimal form.	By the end of the lesson, learners should be able to: Write a mixed number in decimal form.	Q/A: Mixed numbers in decimal form. Examples and exercise.		<i>KLB BOOK 1 Pg 58-61</i>	
	3	Decimal places.	By the end of the lesson, learners should be able to: Arrange decimals in ascending / descending order.	Examples and exercise.	Place value Chart.	<i>KLB BOOK 1 Pg 63-64</i>	
	4	Rounding off decimals.	By the end of the lesson, learners should be able to: Round off a decimal to a given number of decimal places.	Q/A method. Oral exercise. Written Exercise.		<i>KLB BOOK 1 Pg 63</i>	

	5	Recurring decimals.	By the end of the lesson, learners should be able to: Identify a recurring decimal. Rewrite a recurring decimal notation in ordinary form.	Work out long division involving recurring decimals. Exposition of new notations.		<i>KLB BOOK 1 Pg 61-62</i>	
	6	Recurring decimals as ordinary fractions.	By the end of the lesson, learners should be able to: Write a recurring decimal as ordinary fractions.	Students work out long division leading to a recurring decimal with <i>one dot</i> . Expository approach: converting the decimal to a fraction. Examples & Exercise.		<i>KLB BOOK 1 Pg 62-63</i>	
2	1	Recurring decimals as ordinary fractions.	By the end of the lesson, learners should be able to: Write a recurring decimal as ordinary fractions.	Working out a recurring decimal with <i>2 dots</i> . Several examples. Written exercise.		<i>KLB BOOK 1 Pg 62-63</i>	
	2	Standard form of numbers.	By the end of the lesson, learners should be able to: Express numbers in standard form.	Explain the standard form of large numbers. Oral exercise. Discussion on prefixes such as <i>kilo, mega, giga, etc.</i>	Chart-prefixes of metric units and their symbols.	<i>KLB BOOK 1 Pg 64</i>	

	3	Decimals in standard form	By the end of the lesson, learners should be able to: Express decimal numbers in standard form.	Explain the standard form of decimal numbers. Use of prefixes <i>milli, centi, deci, micro, pico, etc.</i> Written Exercise.	Chart -Prefixes and their symbols. -Prefixes in standard form, eg, $milli = 10^{-3}$	<i>KLB BOOK 1</i> <i>Pg 64</i>		
	4, 5	Operations on decimals.	By the end of the lesson, learners should be able to: Carry out combined operations on decimals in the correct order.	Examples on several operations including negative decimals. Mixed exercise including word problems.		<i>KLB BOOK 1</i> <i>Pg 65-72</i>		
	6	TEST / MIXED EXERCISE						
3	1	SQUARES & SQUARE ROOTS Squares of whole numbers and decimal fractions.	By the end of the lesson, learners should be able to: Square a whole number / decimal fraction.	Examples. Inspecting number of decimal places. Game: Squaring numbers ending in 5. Exercise.		<i>KLB BOOK 1</i> <i>Pg 73</i>		

	2	Squares of fractions.	By the end of the lesson, learners should be able to: Square a fraction / mixed fraction.	Review mixed fractions. Cancellation / simplest form of numbers. Exercise.		<i>KLB BOOK 1 Pg 73</i>	
	3,4	Squares using mathematical tables. (3 sig. fig.)	By the end of the lesson, learners should be able to: Obtain squares of numbers using mathematical tables.	Problem solving Assignment.	Mathematical tables.	<i>KLB BOOK 1 Pg 74-76</i>	
	5	Squares using mathematical tables. (4 sig. fig.)		Review standard form of numbers. Teacher guides students on how to use mathematical tables to obtain squares of numbers. Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1 Pg 74-76</i>	
	6	Squares using mathematical tables. (5 sig. fig.)		<i>KLB BOOK 1 Pg 74-76</i>			
4	1	Square roots of perfect squares.	By the end of the lesson, learners should be able to: Work out square roots of perfect squares using factor method.	Q/A: Identifying perfect squares. Review factorization of natural numbers / Divisibility test. Examples and Exercise.	Mathematical tables.	<i>KLB BOOK 1 Pg 76-78</i>	

2	Square roots of 3-digit number from mathematical tables.	By the end of the lesson, learners should be able to: Obtain square root of 3-digit numbers from mathematical tables.	Review standard form of numbers. Teacher guides students on how to use mathematical tables to obtain squares of numbers.	Mathematical tables.	<i>KLB BOOK 1 Pg 78-79</i>		
3	Square roots of 4-digit number from mathematical tables.	By the end of the lesson, learners should be able to: Obtain square root of 4-digit numbers from mathematical tables.	Several examples & Exercise.	Mathematical tables.	<i>KLB BOOK 1 Pg 78-79</i>		
4,5	Square roots of decimal numbers from mathematical tables.	By the end of the lesson, learners should be able to: Obtain square root of decimal numbers from mathematical tables.	Review standard form of numbers. Teacher guides students on how to use mathematical tables to obtain squares of numbers. Several examples & Exercise	Mathematical tables.	<i>KLB BOOK 1 Pg 78-79</i>		
6	Mixed exercise.	By the end of the lesson, learners should be able to: Solve numerous problems on squares of numbers.	Problem solving – word problems.	Mathematical tables.	<i>KLB BOOK 1 Pg 79</i>		

5	1	ALGEBRAIC EXPRESSIONS Symbols & symbolic representation.	By the end of the lesson, learners should be able to: Write quantities in symbols and vice versa. Identify like and unlike terms.	Examples. Oral exercise.		<i>KLB BOOK 1 Pg 80-82</i>	
	2,3	Collecting like terms. <i>Symbols and fractions.</i>	By the end of the lesson, learners should be able to: Add / subtract like terms.	Examples. Supervised practice. Oral exercise. Written exercise.		<i>KLB BOOK 1 Pg 82-84</i>	
	4	Collecting like terms. <i>Symbols with powers.</i>	By the end of the lesson, learners should be able to: Add / subtract like terms.	Examples. Oral exercise. Written exercise.		<i>KLB BOOK 1 Pg 84-85</i>	
	5	Opening brackets.	By the end of the lesson, learners should be able to: Expand algebraic expressions.	Examples. Supervised practice. Written exercise.		<i>KLB BOOK 1 Pg 85</i>	
	6	Simplifying algebraic	By the end of the lesson, learners should be able to:	Examples.		<i>KLB BOOK 1 Pg 83</i>	

		expressions.	Simplify algebraic expressions.	Supervised practice. Written exercise.			
6	1	Factorization.	By the end of the lesson, learners should be able to: Factorize algebraic expressions.	Q/A: Identifying common factors. Examples. Supervised practice. Written exercise.		<i>KLB BOOK 1</i> <i>Pg 86-88</i>	
	2	Further factorization.	By the end of the lesson, learners should be able to: Factorize longer algebraic expressions.	Q/A: Identifying common factor. Factoring out common factor(s).		<i>KLB BOOK 1</i> <i>Pg 88-90</i>	
	3	Factorization by grouping.	By the end of the lesson, learners should be able to: Factorize algebraic expressions by grouping.	Q/A: Identifying common factor. Factoring out common factor(s) / groups of factors.		<i>KLB BOOK 1</i> <i>Pg 88-90</i>	

	4	Simplifying algebraic fractions.	By the end of the lesson, learners should be able to: Simplifying algebraic fractions.	Review LCM. Give examples and an assignment.		<i>KLB BOOK 1 Pg 91-92</i>	
	5	Substituting numbers into algebraic expressions.	By the end of the lesson, learners should be able to: Substitute numbers into algebraic expressions.	Several examples. Recapitulation of major points. Exercise.		<i>KLB BOOK 1 Pg 92- 93</i>	
	6	C.A.T.					
7	1	RATE, PROPORTION, RATIO, %. Rates.	By the end of the lesson, learners should be able to: Solve problems involving rates.	 Examples / Problem solving.		<i>KLB BOOK 1 Pg 96-97</i>	
	2	Ratios: Comparing two / more ratios.	By the end of the lesson, learners should be able to: Solve problems involving ratios. Compare two ratios.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1 Pg 97-99</i>	

	3	Ratios: increasing / decreasing.	By the end of the lesson, learners should be able to: Increase / decrease a quantity in a given ratio.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1</i> <i>Pg 99-100</i>	
	4	Ratios: Distribute a quantity in a given ratio.	By the end of the lesson, learners should be able to: Divide a quantity in a given ratio.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1</i> <i>Pg 101</i>	
	5 & 6	Direct proportion.	By the end of the lesson, learners should be able to: Solve problems on direct proportion.	Worked examples. Supervised practice. Written exercises. Exercise review.		<i>KLB BOOK 1</i> <i>Pg 102-105</i>	
8	1 & 2	Inverse proportion	By the end of the lesson, learners should be able to: Solve problems on inverse proportion.	Oral practice. Examples Written exercises.		<i>KLB BOOK 1</i> <i>Pg 102-105</i>	
	3	Fractions and Percentages.	By the end of the lesson, learners should be able to: Write a fraction as a %.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1</i> <i>Pg 105-106</i>	

	4	Decimals and percentages.	By the end of the lesson, learners should be able to: Write a decimal fraction as a %.	Worked examples. Supervised practice. Exercises – oral and written.		<i>KLB BOOK 1 Pg 105-6</i>	
	5	Percentage increase.	By the end of the lesson, learners should be able to: Compute % increases of quantities.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1 Pg 106-9</i>	
	6	Percentage decrease.	By the end of the lesson, learners should be able to: Compute % decreases of quantities.	Oral practice. Written exercise.		<i>KLB BOOK 1 Pg 106-9</i>	
9	1	LENGTH Metric units of length	By the end of the lesson, learners should be able to: Identify the S.I. unit of length. Convert derived units of length to metre.	Q/A : Units of length. Conversion rates. Oral & written	Metre rule. Chart- grid of units.	<i>KLB BOOK 1 Pg 110</i>	

				exercises.			
2	Significant figures of length.	By the end of the lesson, learners should be able to: Express length in the correct number of sig. figures.	Explain (Non) significant zero. Oral & Written exercises	Instruments of measuring length that are more sensitive than the metre rule.	<i>KLB BOOK 1 Pg 111-3</i>		
3	Measuring length.	By the end of the lesson, learners should be able to: Determine length accurately.	Practical session: measuring lengths of various bodies.	Metre rule, Ruler, Tape measure.	<i>KLB BOOK 1 Pg 113-6</i>		
4	Perimeter of plane figures.	By the end of the lesson, learners should be able to: Calculate perimeter of drawn plane figures.	Oral practice. Problem solving.		<i>KLB BOOK 1 Pg 113-6</i>		
5	Value of π .	By the end of the lesson, learners should be able to: Determine practically the value of pi.	Students' activity: Determine value of pi using various circular bodies.	Strings, rulers, Circular objects.	<i>KLB BOOK 1 Pg 116-7</i>		

	6	Circumference.	By the end of the lesson, learners should be able to:	Problem solving. Assignment.	Strings, rulers, Circular objects.	<i>KLB BOOK 1 Pg 118</i>	
10	1	Arc length.	Calculate circumferences of part of circles.	Exposition, examples, written exercise.		<i>KLB BOOK 1 Pg 118-121</i>	
	2	AREA Units of area.	By the end of the lesson, learners should be able to: Convert units of area to given units.	Q/A to review units of length. Oral and written exercises.		<i>KLB BOOK 1 Pg 123</i>	
	3	Area of plane figures.	By the end of the lesson, learners should be able to: Find area of plane figures.	Oral and written exercises.	Plane figure models- kite, rhombus, parallelogram, etc.	<i>KLB BOOK 1 Pg 124-129</i>	
	4	Area of a circle.	Find area of a circle.	Oral and written exercises.		<i>KLB BOOK 1 Pg 129-131</i>	
	5	Area of a sector.	Find area of a sector.	Worked examples. Supervised practice. Miscellaneous exercise.		<i>KLB BOOK 1 Pg 131-134</i>	
	6	Surface area of solids.	Find surface area of solids.	Worked examples. Supervised practice. Miscellaneous exercise.		<i>KLB BOOK 1 Pg 135 - 140</i>	

11	1	VOLUME & CAPACITY Units of volume.	By the end of the lesson, learners should be able to: Convert metric units of volume to m^3 .	Worked examples. Supervised practice. Miscellaneous exercise.		<i>KLB BOOK 1 Pg 143</i>	
	2	Cubes, cuboids & cylinders.	By the end of the lesson, learners should be able to: Calculate volumes of cubes and cuboids.	Worked examples. Supervised practice. Miscellaneous exercise.		<i>KLB BOOK 1 Pg 143-146</i>	
	3	Capacity: Units.	By the end of the lesson, learners should be able to: Convert one unit of capacity to another.	Oral practice. Worked examples. Supervised practice. Miscellaneous exercise.	Measuring cylinders.	<i>KLB BOOK 1 Pg 146-7</i>	
	4	Volume and Capacity: Units.	By the end of the lesson, learners should be able to: Convert units of volume to units of capacity.	Oral practice. Worked examples. Supervised practice. Miscellaneous exercise.	Measuring cylinders.	<i>KLB BOOK 1 Pg 146-7</i>	
	5,6	Volume and Capacity: Numericals.	By the end of the lesson, learners should be able to: Solve problems involving volume and capacity.	Worked examples. Supervised practice. Miscellaneous exercise.		<i>KLB BOOK 1 Pg 146-7</i>	

12, 13		<i>END OF TERM TWO EXAMS</i>					

MATHEMATICS FORM ONE TERM THREE YEAR 2019							
WK NO.	L/ NO	TOPIC/ SUBTOPIC	LESSON / SPECIFIC OBJECTIVES	TEACHING / LEARNING ACTIVITIES	MATERIALS / RESOURCES	REFERENCES	REMARKS
1	1,2	MASS, WEIGHT & DENSITY Mass & Weight.	By the end of the lesson, learners should be able to: Solve problems relating to mass and weight.	Q/A: Definition of mass, weight. Discuss units of mass, weight. Oral exercise on relation between mass and weight.	Beam balance, spring balance calibrated in Newtons.	<i>KLB BOOK 1 Pg 148-9</i>	

	3,4	Density.	By the end of the lesson, learners should be able to: Calculate density in kg/m^3 and g/cm^3 .	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1</i> <i>Pg 149-152</i>	
	5	TIME. Units of time.	By the end of the lesson, learners should be able to: Convert units of time into S.I. unit.	Oral practice. Written exercise.	Stop clocks/ Watches.	<i>KLB BOOK 1</i> <i>Pg 153-4</i>	
	6	12 / 24 hr system of time.	By the end of the lesson, learners should be able to: Express 12-hr system in 24-hr system.	Oral practice. Written exercise.	Stop clocks/ Watches	<i>KLB BOOK 1</i> <i>Pg 154-6</i>	
2	1,2	Travel timetables.	By the end of the lesson, learners should be able to: Interpret travel timetables.	Oral practice. Written exercise. Review of exercise.	Chart- Travel timetables.	<i>KLB BOOK 1</i> <i>Pg 156-9</i>	
	3	LINEAR EQUATIONS Simple equations.	By the end of the lesson, learners should be able to: Solve simple equations with one unknown.	Worked examples. Exercise.	Graph papers, geo-board / grid.	<i>KLB BOOK 1</i> <i>Pg 160-1</i>	
	4	Fractions with one unknown.	By the end of the lesson, learners should be able to: Solve simple equations with fractions.	Worked examples. Exercise.		<i>KLB BOOK 1</i> <i>Pg 161-2</i>	

	5,6	Word problems.	By the end of the lesson, learners should be able to: Solve equations involving fractions and whole numbers.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1</i> <i>Pg 162-5</i>	
3	1	Linear Equations with two unknowns. - <i>elimination method.</i> (Whole numbers)	By the end of the lesson, learners should be able to: Solve equations with two unknowns using elimination method.	Worked examples. Exercise. Problem solving.		<i>KLB BOOK 1</i> <i>Pg 165-7</i>	
	2,3	Linear Equations with two unknowns. - <i>elimination method.</i> (Fractions / mixed numbers)	By the end of the lesson, learners should be able to: Solve equations with two unknowns using elimination method.	Review L.C.M., equivalent fractions. Worked examples. Exercise. Problem solving.		<i>KLB BOOK 1</i> <i>Pg 167-9</i>	

3	4,5	Linear equations with two unknowns. - <i>elimination method.</i> (Word problems)	By the end of the lesson, learners should be able to: Solve equations with two unknowns using elimination method.	Worked examples. Supervised practice. Exercises.		<i>KLB BOOK 1 Pg 167</i>	
	6	Linear equations with two unknowns. - <i>substitution method.</i> (Whole numbers / word equations)	By the end of the lesson, learners should be able to: Solve equations with two unknowns using substitution method.	Worked examples. Supervised practice. Exercise.		<i>KLB BOOK 1 Pg 168-170</i>	
4	1	Linear equations with two unknowns. - <i>substitution method.</i> (Fractions)	By the end of the lesson, learners should be able to: Solve equations with two unknowns using substitution method.	Problem solving. Written exercise.		<i>KLB BOOK 1 Pg 168-170</i>	
	2	Linear Equations with two unknowns. - <i>substitution method.</i>	By the end of the lesson, learners should be able to: Solve decimal fractions with two unknowns using	Worked examples. Supervised practice Exercise.		<i>KLB BOOK 1 Pg 168-170</i>	

		<i>(Decimals)</i>	substitution method.				
	3,4	CO-ORDINATES AND GRAPHS Co-ordinate plane.	By the end of the lesson, learners should be able to: Label co-ordinate axis, plane. Locate points in the C/plane given (x, y).	Review the number line. Discussion. Oral exercise.	Geo-board, Graph papers.	<i>KLB BOOK 1 Pg 182-4</i>	
	5,6	Plotting a graph of a line.	By the end of the lesson, learners should be able to: Identify points that a line passes through. Plot the corresponding graph.	Review solving of equations of lines. Discover several points that a line passes through. Supervised practice on plotting of graphs.	Geo-board, Graph papers.	<i>KLB BOOK 1 Pg 182-4</i>	
5	1	Further equations of lines.	By the end of the lesson, learners should be able to: Plot graphs involving fractions and mixed fractions. Rewrite equations in the form $y = m x + c$.	Worked examples Supervised practice. Review exercises.	Geo-board, Graph papers.	<i>KLB BOOK 1 Pg 185-8</i>	

	2	General graphs (Whole numbers)	By the end of the lesson, learners should be able to: Plot graphs of a given set of data, by first choosing an appropriate scale.	Worked examples Supervised practice. Review exercises.	Geo-board, Graph papers.	<i>KLB BOOK 1</i> <i>Pg 189-196</i>	
	3	General Graphs Decimal Numbers)	By the end of the lesson, learners should be able to: Plot graphs of a given set of data, by first choosing an appropriate scale.	Worked examples Supervised practice. Review exercises.	Geo-board, Graph papers.	<i>KLB BOOK 1</i> <i>Pg 189-196</i>	
	4	General Graphs Positive and Negative Numbers)	By the end of the lesson, learners should be able to: Plot graphs of a given set of data, by first choosing an appropriate scale.	Worked examples Supervised practice. Review exercises.	Graph papers.	<i>KLB BOOK 1</i> <i>Pg 189-196</i>	
	5,6	General Graphs (Curves / Word problems)	By the end of the lesson, learners should be able to: Plot and sketch curves. Express word problems graphically.	Worked examples Supervised practice. Review exercises.	Graph papers.	<i>KLB BOOK 1</i> <i>Pg 189-196</i>	
6	1	Simultaneous equations.	By the end of the lesson, learners should be able to:	Review graph of a line.	Graph papers.	<i>KLB BOOK 1</i> <i>Pg 188-9</i>	

			Solve simultaneous equations graphically.	Exercises. Further problem solving.			
	2	COMMERCIAL ARITHMETIC Unit price and total price.	By the end of the lesson, learners should be able to: Calculate cost of items given the unit price.	Worked examples Supervised practice. Review exercises.		<i>KLB BOOK 1</i> <i>Pg 171-2</i>	
6	3	Currency Exchange.	By the end of the lesson, learners should be able to: Convert one currency to another given the exchange rates.	Informal discussion: Importance of Currency Exchange. Worked examples.	Newspapers: exchange rates.	<i>KLB BOOK 1</i> <i>Pg 172-5</i>	
	4	Profit & loss.	By the end of the lesson, learners should be able to: Calculate (%) Profit & Loss.	Q/A : Definitions of marked price, cost price. Problem solving Exercise.		<i>KLB BOOK 1</i> <i>Pg 175-7</i>	
	5	Commissions.	By the end of the lesson, learners should be able to:	Q/A: Definition of commission.		<i>KLB BOOK 1</i> <i>Pg 178-9</i>	

			Solve problems related to sales & commissions.	Problem solving			
	6	Discounts. Word problems / miscellaneous exercise.	By the end of the lesson, learners should be able to: Solve problems related to sales & discounts.	Q/A : Definitions of marked price, cost price, % discount. Exercise. Problem solving.		<i>KLB BOOK 1 Pg 177-8</i>	
7	1	ANGLES & PLANE FIGURES Types of angles.	By the end of the lesson, learners should be able to: List types of angles. State angle complements / supplements.	Worked examples Supervised practice. Review exercises.		<i>KLB BOOK 1 Pg 197-8</i>	
	2	Angles on a straight line, adjacent angles.	By the end of the lesson, learners should be able to: Identify values of the said angles.	Oral practice. Worked examples Supervised practice. Review exercises.		<i>KLB BOOK 1 Pg 199-200</i>	

	3	Angles at a point.	By the end of the lesson, learners should be able to: Determine values of angles at a point.	Worked examples Supervised practice. Review exercises.		<i>KLB BOOK 1</i> <i>Pg 201-6</i>	
	4	Angles on a transversal.	By the end of the lesson, learners should be able to: Determine values of angles on a transversal.	Oral practice. Supervised practice. Review exercises.		<i>KLB BOOK 1</i> <i>Pg 206-211</i>	
	5	Polygons.	By the end of the lesson, learners should be able to: Apply angle properties of <i>triangles</i> in problem solving.	Solve problems. Identify interior & exterior angles, deducing their sums.		<i>KLB BOOK 1</i> <i>Pg 218-228</i>	
	6	C.A.T.					
8	1	GEOMETRICAL CONSTRUCTION Perpendicular lines.	By the end of the lesson, learners should be able to: Construct a line, perpendicular lines and a perpendicular bisector.	Geometrical construction.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 231-2</i>	
	2	Bisecting an angle.	By the end of the lesson, learners should be able to:	Guided geometrical construction.	Complete Geometrical	<i>KLB BOOK 1</i> <i>Pg 232-3</i>	

			Bisect an angle.		set.		
	3	Constructing special angles using a ruler and a pair of compasses only.	By the end of the lesson, learners should be able to: To construct various special angles using a ruler and a pair of compasses only.	Guided geometrical construction. Supervised practice.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 233-4</i>	
	4	Constructing special angles using a ruler and a pair of compasses only. (contd.)	By the end of the lesson, learners should be able to: Construct various special angles using a ruler and a pair of compasses only.	Guided geometrical construction. Supervised practice. Exercises.	Complete Geometrical set & BB set	<i>KLB BOOK 1</i> <i>Pg 233-4</i>	
	5	Parallel lines.	By the end of the lesson, learners should be able to: Construct two parallel lines.	Guided geometrical construction. Supervised practice.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 235-6</i>	
	6	Proportional division of a line.	By the end of the lesson, learners should be able to: Divide a line proportionally.	Guided geometrical construction. Supervised practice.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 236-7</i>	
9	1	Regular polygons.	By the end of the lesson, learners should be able to:	Guided geometrical construction. Supervised practice.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 238-244</i>	

		Construct regular polygons and determine sum of interior and exterior angles.	Exercises.			
2	Irregular polygons.	By the end of the lesson, learners should be able to: Construct irregular polygons and determine sum of interior and exterior angles.	Guided geometrical construction. Supervised practice. Exercises.	Complete Geometrical set.	<i>KLB BOOK 1 Pg 238-244</i>	
3	Further constructions.	By the end of the lesson, learners should be able to: Construct triangles given two sides and an angle; three sides.	Guided geometrical construction. Supervised practice. Exercises. Exercise review.	Complete Geometrical set.	<i>KLB BOOK 1 Pg 238-244</i>	
4	SCALE DRAWING The scale.	By the end of the lesson, learners should be able to: Interpret statement scales and representative fractions.	Simple exercise on scales.	Maps.	<i>KLB BOOK 1 Pg 248-9</i>	
5	Scale diagrams.	By the end of the lesson, learners should be able to: Interpret scale diagrams.	Discuss actual and represented lengths. Exercise.	Maps. Diagrams drawn to scale.	<i>KLB BOOK 1 Pg 249-250</i>	
6	Bearings.	By the end of the lesson, learners should be able to:	Discussion &	Maps.	<i>KLB BOOK 1 Pg 251-2</i>	

			Determine the bearing of a point from a point.	Exercise.	Protractor Ruler.		
10	1	True bearings.	By the end of the lesson, learners should be able to: State the true bearing of point from another point.	Discussion & Exercise Problem solving.	Maps, protractors, rulers.	<i>KLB BOOK 1 Pg 252-6</i>	
	2	True bearings Contd.	By the end of the lesson, learners should be able to: Solve problems on bearings.	Problem solving.	Maps, protractors, rulers.	<i>KLB BOOK 1 Pg 252-6</i>	
	3	Angle of elevation.	By the end of the lesson, learners should be able to: Define angle of elevation. Solve problems related to angle of elevation.	Expository approach: leading to the definition of angle of elevation. Review SOH, CAH, TOA. Worked examples. Exercise.	Protractor, Clinometer.	<i>KLB BOOK 1 Pg 256-262</i>	
	4	Angle of depression.	By the end of the lesson, learners should be able to: Define angle of elevation. Solve problems related to angle of depression.	Expository approach: leading to the definition of angle of elevation. Worked examples. Exercise.	Protractor, Clinometer.	<i>KLB BOOK 1 Pg 256-262</i>	
	5	Angles of elevation & depression.	By the end of the lesson, learners should be able to: Solve problems related to angles of elevation & depression.	Worked examples. Exercise.	Protractor, Clinometer.	<i>KLB BOOK 1 Pg 256-262</i>	

	6	Triangulation.	By the end of the lesson, learners should be able to: Define baseline, offsets. Draw baseline, offsets on plot.	Expository approach: leading to the definition of baseline, offset. Class experiments / Group work.	Model of parcel of land on a Cardboard.	<i>KLB BOOK 1 Pg 262-270</i>	
11	1	Triangulation. Contd.	By the end of the lesson, learners should be able to: Calculate area using triangulation method.	Problem solving. Exercise.	Model of parcel of land on a Cardboard.	<i>KLB BOOK 1 Pg 262-270</i>	
	2	COMMON SOLIDS Common regular solids.	By the end of the lesson, the learner should be able to: Identify and sketch common solids. Count faces, edges and vertices of various polyhydra.	Q/A: Definition of a solid, examples of solids. Present solids; students count no. of faces, edges and vertices.	Common solids.	<i>KLB BOOK 1 Pg 271-4</i>	
	3	Isometric projection	By the end of the lesson, the learner should be able to: Sketch a solid using isometric projection.	Teacher exposes meaning of isometric projection, and then leads students in geometric construction.	Geometric set & BB set.	<i>KLB BOOK 1 Pg 275</i>	
	4,5	Nets of solids.	By the end of the lesson, the learner should be able to: Sketch accurately nets of	Teacher draws a net of a solid, then students draw nets of	Chart- nets of solids drawn.	<i>KLB BOOK 1 Pg 277-281</i>	

			solids.	other solids; supervised practice.			
	5,6	Nets of solids.	By the end of the lesson, the learner should be able to: Make models of solids.	Teacher makes a net of one solid, and students make nets of other solids.	Manilla papers, geometrical ser.	<i>KLB BOOK 1 Pg 277-281</i>	
12, 13		<i>END OF YEAR EXAMS</i>					