

	SCHEME OF WORK		FORM ONE MATHEMATICS		TERM ONE YEAR 20.....		
WK NO.	L/ NO	TOPIC/ SUBTOPIC	LESSON / SPECIFIC OBJECTIVES	TEACHING / LEARNING ACTIVITIES	MATERIALS / RESOURCES	REFERENCES	REMARKS
1-4		SELECTION OF FORM ONE STUDENTS					
5	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.	KLB BOOK 1 Pg 1	
	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.	KLB BOOK 1 Pg 1	
	3	Rounding off numbers.	Round off numbers to the nearest ten, hundred, thousand, etc.	Oral exercise. Worked examples. Written exercise.		KLB BOOK 1 Pg 2-3	
	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.		KLB BOOK 1 Pg 6-9	
	5	Odd, even and prime numbers.	Identify odd, even and prime numbers.	Q/A , oral exercise, written exercise.		KLB BOOK 1 Pg 9	
	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.		KLB BOOK 1 Pg 10-11	

2	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>	

7	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>	

8	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. Exercise.		<i>KLB BOOK 1</i> <i>Pg 35-37</i>	

	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 Pg 35-37</i>	
9	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 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 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 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 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>	

	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</i> <i>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</i> <i>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</i> <i>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</i> <i>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</i> <i>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</i> <i>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>	
		<i>END OF TERM ONE EXAMS</i>					

	<i>FORM ONE MATHEMATICS</i>			<i>TERM TWO</i>	<i>YEAR 20</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</i> <i>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</i> <i>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</i> <i>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 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 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.)		Problem solving Assignment.	Mathematical tables.	<i>KLB BOOK 1 Pg 74-76</i>	

	5	Squares using mathematical tables. (4 sig. fig.)	By the end of the lesson, learners should be able to:	Review standard form of numbers. Teacher guides students on how to use mathematical tables to obtain squares of numbers. Worked examples. Supervised practice. Exercise.	Mathematical tables.	<i>KLB BOOK 1 Pg 74-76</i>	
	6	Squares using mathematical tables. (5 sig. fig.)	Obtain squares of numbers using mathematical tables.			<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 expressions.	By the end of the lesson, learners should be able to: Simplify algebraic expressions.	Examples. Supervised practice. Written exercise.		<i>KLB BOOK 1 Pg 83</i>	
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 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 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 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 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 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 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 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 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 exercises.	Metre rule. Chart- grid of units.	<i>KLB BOOK 1 Pg 110</i>	
	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 π .	Students' activity: Determine value of π 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		END OF TERM TWO EXAMS	
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MATHEMATICS FORM ONE TERM THREE YEAR 20							
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.	KLB BOOK 1 Pg 148-9	
	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.		KLB BOOK 1 Pg 149-152	
	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.	KLB BOOK 1 Pg 153-4	

	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</i> <i>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</i> <i>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</i> <i>Pg 168-170</i>	
	2	Linear Equations with two unknowns. - <i>substitution method.</i> (Decimals)	By the end of the lesson, learners should be able to: Solve decimal fractions with two unknowns using substitution method.	Worked examples. Supervised practice Exercise.		<i>KLB BOOK 1</i> <i>Pg 168-170</i>	
	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</i> <i>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 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 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 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 Pg 189-196</i>	
6	1	Simultaneous equations.	By the end of the lesson, learners should be able to: Solve simultaneous equations graphically.	Review graph of a line. Exercises. Further problem solving.	Graph papers.	<i>KLB BOOK 1 Pg 188-9</i>	
	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 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 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 Pg 175-7</i>	
	5	Commissions.	By the end of the lesson, learners should be able to: Solve problems related to sales & commissions.	Q/A: Definition of commission. Problem solving		<i>KLB BOOK 1 Pg 178-9</i>	
	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: Bisect an angle.	Guided geometrical construction.	Complete Geometrical set.	<i>KLB BOOK 1</i> <i>Pg 232-3</i>	

	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 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 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 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 Pg 236-7</i>	
9	1	Regular polygons.	By the end of the lesson, learners should be able to: Construct regular 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>	

	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: Determine the bearing of a point from a point.	Discussion & Exercise.	Maps. Protractor Ruler.	<i>KLB BOOK 1 Pg 251-2</i>	
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</i> <i>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</i> <i>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</i> <i>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</i> <i>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</i> <i>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 solids.	Teacher draws a net of a solid, then students draw nets of other solids; supervised practice.	Chart- nets of solids drawn.	<i>KLB BOOK 1 Pg 277-281</i>	
	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		END OF YEAR EXAMS					