P.6 SCHEME OF WORK TERM ONE.

Emma_da_computerguy!

MTC & ICT TEACHER .

Emma_da_computerguy|| tumusiimeemma02@gmail.com||0702012703

Week	Period	Topic	Subtopic	Subject Competences	Language Competences	Content	Methods	Activities	Life Skills & Values	Ims	Reference	Remarks
1	1	Integers	Naming integers	rations		What integer is 4 steps to the left of ⁺ 6? ⁺ 6 - 4 = ⁺ 2 State either True or False . Every integer on the number line is positive. It is False .		Carrying out basic operations			Mk. Bk. 5-6 Pg. 166-165, 196	
	2		Arrows on the number line	Carries out basic operations	Describes Positive and Negative Integers	Write the integer represented by the arrow below. a	Think – Pair–Share Guided Discovery		g ng sation	a number line	MK. BK.6-7 Pg.197,307	
	3	Integers	Inverse	Identifies Positive and Negative Integers	Describes Positive	Find the additive and subtractive inverse of: (a) $^{+}5$ Let the inverse be b. $^{+}5+b=0$ $^{+}5-5+b=0-5$ $\frac{b}{b}=\frac{-5}{5}$ (b) $^{-}3$ Let the inverse be k. $^{-}3+k=0$ $^{-}3+3+k=0+3$ $\frac{k}{b}=\frac{+3}{5}$	Think - Guided	Finding the Inverse of Positive and Negative Integers	Cooperation Critical Thinking Creative Thinking Effective Communication	A chart showing integers on a number line	Mk. Bk. 6-7 Pg.196,307	
1	4	Integers	Ordering Integers	Arranges Integers	Describes what 'Ordering Integers' is.	Arrange the following ² , ⁴ , [†] 5 and 0 in; (a) Ascending order. (b) Descending order.	Explanation Demonstrati on Explanation	Writing Integers In Ascending Or Descending			Mk. Bk. 5,6&7 Pg.168,198&307	

						Note : This is done with the help of a number line and the integers to the right are greater than those to the left and those to the left are less than those to the right.					
	5	Integers	Comparing Integers	Uses symbols =, < or > to compare integers.	Explains phrases like less than or equal to compare integers	Use >, < or = to compare the following integers (a) 0 ⁻ 6 (b) ⁻ 5 ⁺ 5		Comparing Integers Using Symbols			MK. BK. 5,647 Pg.169,1984307
	6	Integers	Addition and subtraction of	Adds and Subtracts Integers	Describes addition and subtraction of Integers	(a) Work out: *5 + *2. *5 + *2 = *5 + (*2) = *5 + 2 = *7 (b) Simplify: *6 - *3. *6 - *3 = *6 - (*3) = *6 + 3 = *3		Adding and Subtracting Integers	a stion	a number line	MK. BK. 7 Pg.318
	7	Integers	Addition of integers	Plots Integers on a number line	Constructs sentences using the word integers i.e. positive and	 To add integers on a number line, start with the first integer from zero, the next integer starts from where the first integer ends. Any positive integer points to the right and the negative points to the left. The answer is an integer from zero to the last arrow. 	C	Adding and plotting of Integers on a number line	Critical Thinking Creative Thinking Effective Communication	A chart showing integers on a number line	MK. BK. 5 Pg. 173
2	1	Integers	Subtraction of	Plots Integers on a number line	Constructs sentences using the word integers i.e. positive and	 In subtraction of integers, both arrows start from zero. The gap between the arrow heads represents the answer. The gap must start from the second to the first arrow head. 	Explanation Demonstration Guided discovery	Subtracting and plotting of Integers on a number line		A ch	MK. BK. 5 Pg. 175

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2	2	Integers	Multiplication and Division of integers	Carries out basic operation	Reads and writes positive and negative integers	$ \begin{vmatrix} + & x + & + \\ - & x - \\ + & x - \\ - & x - \end{vmatrix} $ $ + + + + + + + + + + + + + + + + + + +$	Multiplying and dividing integers	Critical Thinking Creative Thinking Effective Communication	A chart showing integers on a number line	MK. BK. 7 Pg. 320-321
2	3	Integers	Multiplication of integers	Plots Integers on a number line	Constructs sentences using the word integers i.e. positive and negative.	In Multiplication; (a) $^{+}3 \times ^{+}5$ means 3 jumps of 5 steps in the positive direction from zero. (b) $^{-}6 \times ^{-}3$ means 6 jumps of 3 steps in the positive direction from zero. (- x - = +) (c) $^{+}3 \times ^{-}4$ means 3 jumps of 4 steps in the negative direction from zero. (d) $^{-}2 \times ^{+}4 = ^{+}2 \times ^{-}4$ means 2 jumps of 4 steps in the negative direction from zero.	Drawing a number line and forming mathematical statement.	Critical Thinking Creative Thinking Effective Communication	A chart showing integers on a number line	Mk. Bk. 6 Pg. 206

	4					Note : If both arrows do not start at zero then the statement				
			Forming Mathematical Statements and			involves addition but if both arrows start at zero (at the same point), it involves subtraction. In multiplication, we use skip counting. Skip counting means jumping or missing out a certain number of units at a time.	Explanation Demonstration Guided discovery			MK. BK. 5,647 Pg. 176,2064319
	5	Integers	Application of integers	Solves problems involving application of integers	Describes real life situations where integers are applied	A patient's temperature dropped by 2°c and another 3°c lower. Find the patient's present temperature. Dropping by 2°c = -2°c 3°c lower = -3°c -2°c + -3°c = -2°c + (-3°c) = -2°c - 3°c = -5°c	ο ng	Solving word problems involving application of integers		MK. BK. 5,647 Pg. 177,2074323-324
2	6	Finite System	Counting in finite system using	Draws clock faces	Writes and reads whole numbers	Where do you end you count 7 steps on the following clock faces? (count clockwise from 0) (a) 5 hour clock face. (b) 7 hour clock face.	Explanation Demonstration Guided discovery	Finds equivalence. Solving word problems involving application of Finite system	Critical Thinking Creative Thinking Effective Communication	Mk. Bk. 6 Pg. 246

	7					Find the possi	ble remainders af	ter grouping 22	in finite7.					
						Counting	No, of	No. of	Remainder					
			stem,			system	objects to be counted	groups						
			s sys	tem	rear .	Finite 7	000000000	0000000	000				, ,	
			inite Ari	sks	sks		(10)	(1) Group	(3)				Bk. 6 247	
			in f	nite	ini te		members		Remainders				Mk. Pg.	
			Counting in finite system/ Remainder Arithmetic	Groups whole numbers in finite system	Counts whole numbers in finite system									
			Ŝ	mber	mber	9	4							
				ole nu	ole nu	1)/							
3	1		2	who	w k		of finite 5 and lis	t all the membe	rs equivalent to:					
			Equivalences in Finite 5 7 and 12	sdno	unts	1. 2 (fi 2. 3 (fi	nite 5) nite 5)						000	
			lenc 7 o	79	ડ		next three equiva	lent whole numb	ers for;				Bk. 6	
			quivo				2 (finite 5) = 2,7						MK. Pg.	
			ת יי				5 (finite 7) = 5, 1 6 (finite 12) = 6,							
	2						one by using a cloc							
			rem	ing	ife te	calculation me	thod.							
			Syst	avolv tic	Fini Fini lied.		4 = (finite, 5)		1				020	
			nite	ms ir Thme	Describes the real life situation where Finite system is applied.	- Snow the dig - Begin from z	gits for finite 5. {(vero), 1, 2, 3, 4}) /			မွ	k. 6 - 250	
			Ë	oble : arii	1 ± 25 ± 4 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 ×	- Move 3 gaps			1				Mk. Bk. 3. 249 -	
			ion	ss pr	ation stel		gaps clock wise.					er a number line	Pg ≜	
			Addition in Finite System	Solves problems involving clock arithmetic	Describes the real life situation where Finite system is applied.		s where you end. sitive integer, we	move clock wise						
			,				iting the addition					Mathematical ruler Clock faces chart showing integers on a		
3	3				d.	Simplify: 2 - 3					<u>б</u>	hematical ri Clock faces g integers o		
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		. Sy	in Fi	ms ir thme	rea syst		gaps anti clock wis s where you end,	e.		Explanation emonstration ided discove	problems involving of Finite system	lart	9. 33.	
		Finite System	Subtraction in Finite System	oble	t he	Calculation me				Explanation Demonstration Guided discovery	o uo	A c	MK. Pg.	
		ı.	trac	ss pr	bes Fin	2 - 3 (finite, 5	5) = (2 + 5) - 3 (fin			O. O.	g wc cati			
			Sub	Solves problems involving clock arithmetic	Describes the real life situation where Finite system is applied.	= 4 (finite 5)	= 7 - 3 (finite 5)				Solving word proapplication of			
					<u> </u>		ting the subtraction	on sentences fro	om dials.		χ ,			

	4		Multiplication in Finite System	Solves problems involving clock arithmetic		Note: For a negative integer, we move anti-clock wise. Multiply: $4 \times 5 = p$ (finite 7) Calculation Method. $p = 4 \times 5$ (finite 7) = 20 (finite 7) = $\frac{20}{7}$ (finite 7) = 2 rem. 6 (finite 7) = 6 (finite 7) Dising a clock face/ Dial method. 4 x 5 means 4 jumps of 5 steps in the positive direction. Writing the multiplication sentences from dials.					Mk. Bk. 6 Pg.251& 331
	5		Division in Finite System	Solves probler		Divide $1 \div 5 = $ (finite 6) $(1 + 6) \div 5 = $ (finite 6) $7 \div 5 = $ (finite 6) $(7 + 6) \div 5 = $ (finite 6) $13 \div 5 = $ (finite 6) $(13 + 6) \div 5 = $ (finite 6) $19 \div 5 = $ (finite 6) $(19 + 6) \div 5 = $ (finite 6) $25 \div 5 = 5$ (finite 6) Therefore $1 \div 5 = 5$ (finite 6)			Critical Thinking Creative Thinking Effective Communication		MK. BK. 7 Pg.333
3	6	Finite System	Finding the unknown in Finite system		Finds the unknown	2m - 3 = 3 (finite 5) 2m - 3 + 3 = 3 + 3 (finite 5) 2m = 6 (finite 5) $\frac{2m}{2} = \frac{6}{2}$ m = 3	Explanation Demonstration Guided discovery	S	Critical Thinking Creative Thinking Effective Communication	Finding the unknown	Mk. Bk. 7 Pg. 332 - 333

	7	Application of Finite Seven (7)		Describes the real life situation where Finite system is applied.	(a) Days of the week. Finite 7 is applied in days of the week. Today is Thursday what day of the week will it be 82 days from today. M T W T F S S 1 2 3 4 5 6 0 Day + days (finite 7) = Thur. + 82 (finite 7) = 4 + 82 (finite 7) = 86 (finite 7) = 86 (finite 7) = 12 rem. 2 (finite 7) = 12 rem. 2 (finite 7) = 2 (finite 7) Therefore the day of the week will be Tuesday Note: Will it you Add. Was it you Subtract. In finite system, we always consider the remainders.	System	chart showing a calendar	Mk. Bk. 6&7 Pg.334 - 336	
4	1	Application of Finite Seven (7)	Solves problems involving clock arithmetic	Describes the real life situation where Finite system is applied.	Today is Wednesday 14th June. What day of the week will it be on 20th August the same year? June (30 - 14) days = 16 days July = 31 days	of Finite system	∢	Mk. Bk. 6&7 Pg. 335 - 336	

	2		Application of Finite 12	Solves problems involving clock arithmetic		Therefore the day of the week will be Sunday Finite 12 is applied in months of the year. This month is July. Which month of the year will it be after 2132 months? The month of the year will it be after 2132 months? The month of the year will it be after 2132 months? The month of the year will be March. Therefore the month of the year will be March.	Explanation Demonstration Guided discovery	n of Finite system		A chart showing a calendar	MK. BK. 647 Pg. 336 - 337	
4	3	Finite System	More Application of Finite 12	Solves problems involving clock arithmetic	Describes the real life situation where Finite system is applied.	Finite 12 or mod. 12 can also be applied on the 12 hour clock. It is 7:00 a.m. What time will it be after nine hours from now? 7 + 9 (finite 12) = 16 (finite 12) = \frac{16}{12} (finite 12) = 1 rem. 4 (finite 12) = 4 (finite 12) \text{It will be 4 p.m.} Note: - An Odd Quotient changes (p.m. to a.m.) and (a.m. to p.m.) e.g. 1, 3, 5, 7, 9, 11, - An Even Quotient leaves (a.m. as a.m.) and (p.m. as p.m.) e.g. 2, 4, 6, 8, 10, 12, 1 is an odd quotient	Explanation Demonstration Guided discovery	Solving word problems involving application of	Critical Thinking Creative Thinking Effective Communication	Clock faces	МК. ВК. 6&7 Рд. 338 - 339	

	4	Finite System	Application of more than one finite at a go	Solves problems involving clock arithmetic		Teacher Adam bought some pens. He put them in groups of 9's and 7 pens were left. When he put them in groups of 8 only 4 pens were left. But he put them in groups of 3's only one pen was left. How many pens did the teacher buy? 7 (finite 9) = 7, 16, 25, 34, 43, 52, 61, 70, 4 (finite 8) = 4, 12, 20, 28, 36, 44, 52, 60, 1 (finite 3) = 3, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, The common number for all is 52, the teacher bought 52 pens. Note: The groups are the finite.	Explanation Demonstration Guided discovery	Solving word problems involving application of Finite system	Critical Thinking Creative Thinking Effective Communication	A chart showing more about finite system	Мк. Вк. 6&7 Рд. 339 – 340	
4	5	Algebra	Collecting Like Terms	Collects like terms	Explains like terms	Simplify: 6y - 4 + 3y + 13 6y - 4 + 3y + 13 = 6y + 3y + 13 - 4 = 9y + 9	Guided dis∎overy Guided discussion 'hin≝ - pair - share	Identifying Like Terms	Critical Thinking Creative Thinking Effective Communication Problem - solving	Counters Flash cards	Mk. Bk.5 & 7 Pg. 180 &430.	
	6	Algebra	Substitution	Substitutes values for the unknown	Explains like unknown	Given that $p = 8$, $q = 6$ and $r = 4$. Find the value of prq. $prq = (p) \times (r) \times (q)$ $= (8 \times 4) \times 6$ $= 32 \times 6$ = 192	Guided Guided Thin⊌ - p	Substituting volues	Critical Creative Effective C Problen	Cou Flast	Mk. Bk.6 Pg.379.	

	7	Algebra	Finding the Unknown	Simplifies expressions involving the unknown	Explains steps taken in solving simple equations.	1. g + 4 = 12 g + 4 - 4 = 12 - 4 g = 8 2. 2m + 4 = m + 6 2m + 4 - 4 = m + 6 - 4 2m = m + 2 2m - m = m - m + 2 m = 2 Note: Involve all the 4 Operations. (+), (-),(X), (÷) and =	Guided discovery Guided discussion Think - pair - share	Solving Equations.	inking unking nunication olving	Counters Flash cards	MK. BK.5,6& 7 Pg. 182, 388& 452	
5	1	Algebra	Powers	Simplifies algebraic expressions	Explains steps taken in solving simple equations	(a) Addition: $2^2 + 2^4 = (2x^2) + (2x^2x^2x^2)$ = 4 + 16 = 20 (b) Subtraction: $3^3 - 2^2 = (3x^3x^3) - (2x^2)$ = 27 - 4 = 23	Guided discovery Guided discussian Think - pair - snare	Simpli£ving algebraic expressions	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing laws of indices	Bk. 7 Pg. 440 - 442.	
	2	A	a.	Simplifies alg	Explains steps taken	(c) Multiplication: $4^3 \times 4^2 = 4^{(3+2)}$ = 4^5 (d) Division: $3^4 \div 3^2 = 3^{(4-2)}$ = 3^2	Guidec Guidec Think -	Simplifying alç		A chart show	MK. BK.7	

	3	Algebra	Equations involving Fractions.	Solves equations with the unknown	Explains steps taken in solving simple equations.	Solve: $\frac{3h_{-1}}{2} = \frac{7h+1}{6}LCD = 6$ $\frac{6X(3h_{-1})}{2} = \frac{6X(7h+1)}{6}$ 3(3h-1) = 1(7h+1) 9h - 3 = 7h + 1 9h - 3 + 3 = 7h + 1 + 3 9h = 7h + 4 9h - 7h = 7h - 7h + 4 2h = 4 $\frac{2h}{2} = \frac{4}{2}$ h = 2	Guided discovery Guided discussion Think - pair - share	Solving Equations.		ymbols	MK. BK. 7 Pg. 457 - 462.
	4	Algebra	Removing Brackets	Solves equations with the unknown	Explains steps taken in solving simple equations.	1. Add x + 4 to x + 1 (x + 1) + (x + 4) = x + 1 + x = 4 = x + x + 1 + 4 = 2x + 5 2. Subtract y + 1 from 2y + 3 (2y + 3) - (y + 1) = 2y + 3 - y - 1 = 2y - y + 3 - 1 = y + 2	Guided discovery Guided discussion Think - pair - share	Solving Equations.	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing algebraic expressions and symbols	MK. BK.6 Fg.395 MK. BK.7 Fg.432-438, 453-456
5	5	Algebra	Inequalities and Solution Sets	Solves inequalities and finds solution sets	Reads statements showing inequalities	Solve the inequality: $9 \le 3(y-1)$ $9 \le 3(y-1)$ $9 \le 3y+3$ $9-3 \le 3y+3-3$ $6 \le 3y$ $\frac{6}{-3} \ge \frac{-3y}{-3}$ $2 \ge y$ Note: When does the symbol change? - If the unknown has a negative. Where does the symbol change from? - As you divide.	Guided discovery Guided discussion Think - pair - share	Solving inequalities and finding solution sets	Ш	A chart showi	MK. BK. 6 Pg. 400 - 404 MK. BK. 7 Pg. 444 - 450.

5 6	Algebra Forming and Solving Fauntions	olving the a	Explains steps taken in solving simple equations.	How old is the sister? Let the sister's age b Boy Sister $f + 2$ f $f + 2$ f $f + 4$ $f + 2$ f $f + 6 + 2$ f $f + 7$ $f + 7$ $f + 8$ $f + 9$ Sister is 9 years old Kizito is 38 years old (a) How many years ago be Time Kizith Kizith	and his sister is 24 years of three times of the sister is 24 years of	ers old. es as old as his	Guided discovery Guided discussion Think - pair - share	Solving problems involving application of algebra	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing application of algebra	Mk. Bk. 6 Pg. 390 - 393, 398 Mk. Bk. 7 Pg. 463 - 464.
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						Mathematics Scheme of Work Lerm I					
5	7	Set Concepts	Types of Sets	Forms different types of sets	Explains different types of sets Reads new words on sets	Equal and Equivalent Sets. Given that P = {1, 2, 3, 4} and Q = {a, b, c, d} P and Q are equivalent sets. If K = {c, p, t} and L = {p, t, c} K and L are equal sets. K = L	Guided discovery Guided discussion Demonstration	Describing sets formed			MK. BK.6 Pg.1
6	1	Set Concepts	Types of Sets	Forms differe	Explains differ Reads new v	Intersection and Union. Given that A = {a, b, c, d, e} and B = {a, e, i, o, u}. Find; (i) AnB = {a, e} n(AnB) = 2 (ii) AUB = {a, b, c, d, e, i, o, u} n (AUB) = 8	Guided discovery Guided discussion Demonstration	Relating Intersection and Union sets to Venn diagrams	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing types and symbols of sets	Mk. Bk.5 Pg.5 Mk. Bk.6 Pg.3
	2	Set Concepts	Types of Sets	Forms different types of sets	Explains different types of sets Reads new words on sets	Complement of Sets. Q = {a, b, d, g, h} and P = {a, c, d, e, f}, find; (i) Q ¹ = {c, e, f} $\frac{n(Q)^1 = 3}{(ii) P^1 = \{b, g, h\}}$ $\frac{n(P)^1 = 3}{(iii) (Q n P)^1 = \{b, g, h, c, e, f\}}$ $\frac{n(Q n P)^1 = 6}{(iiii) (Q n P)^1 = 6}$	Guided discovery Guided discussion Demonstration	Describing sets formed	Critical Creative Effective C	A chart showing type	Mk. Bk. 6 Pg. 8 PLE Past Papers
	3	Set Concepts	Types of Sets	Forms different types of sets	Explains different types of sets Reads new	Difference of Sets. Given a Venn diagram below of sets A and B;	Guided discovery Guided discussion	Describing Sets formed			Mk. 8k.6 Pg.11 - 15

						$A-B = \{a, b, c\}$ $n(A-B) = 3$ $B-A = \{f, g, h, i\}$ $n(B-A) = 4$					
6	4	Set Concepts	Finding Subsets	Forms subsets, applies the formula, derives the formula and determines the number of subsets	Explains different types of sets Reads new words on sets	Given that; T = {p, q, r} (a) Listing method. {}, {p}, {q}, {r}, {p, r}, {p, r}, {q, r}, {p, q, r} (b) Calculation method. Number of subsets = 2 ⁿ = 2 ³ = 2x 2x2 = 8 subsets. (c) Set A has 32 subsets. Find the number of elements in set A. 2 ⁿ = 32 (Factorise 32) 2 ⁿ = 2 ⁵ n = 5 elements Set A has 5 elements. (a) Listing method. (b) Calculation method. (c) Set A has 32 subsets = 2 ⁿ = 2 ³ = 2x 2x2 = 8 subsets. (c) Set A has 32 subsets. Find the number of elements in set A. 2 ⁿ = 32 2 32 2 16 2 8 2 4 2 2 1	Guided discovery Guided discussion Demonstration	Forming improper subsets form given sets Developing the formula for the number of subsets	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing number of subsets by listing or using formula	Mk. Bk.7 Pg.2 - 4 PLE Past Papers
6	5	Set Concepts	Finding Proper Subsets	Forms proper subsets, applies the formula, derives the formula	Explains different types of sets Reads new words on sets	Given that; T = {p, q, r} (a) Listing method. {}, {p}, {q}, {r}, {p, r}, {p, r}, {q, r} (b) Calculation method. Number of subsets = (2 ⁿ) - 1 = (2 ³) - 1	Guided discovery Guided discussion Demonstration	Forming proper subsets form given sets Developing the	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing number of proper subsets by listing or	Mk. Bk. 7 Pg. 3 - 4 College course III Book.

						$= (2x \ 2x2) - 1$ $= 8 - 1$ $= \underline{7 \text{ Proper subsets}}$ (c) Set A has 15 subsets. Find the number of elements in set A. $(2^n) - 1 = 15$ $(2^n) - 1 + 1 = 15 + 1$ $2^n = 16$ $2^n = 2^4$ $n = 4 \text{ elements}$ Set A has 4 elements $n = 4 \text{ elements}$ Set A has 4 elements.					
6	6	Set Concepts	Finite and Infinite Sets	Identifies finite and Infinite sets.	Explains different types of sets Reads new words on sets	Finite Sets (i) A = a set of vowels A = {a, e, i, o, u} (ii) K = {girls I your class} Finite Sets Infinite Sets (i) A = {all stars in the sky} (ii) K = {all leaves on trees in the world}	Guided discovery Guided discussion Demonstration	Identifying finite and Infinite sets	Critical Thinking Creative Thinking Effective Communication Problem - solving	MK. BK. 7 Pg. 16 - 17	
	7	Set Concepts	Describing parts of Voes discress	Forms different types of sets	Reads new words on sets	Describe the shaded region.	Guide Guide Den	Describing shaded parts	Criti Creat Effective Probl	Mk. Bk. 7 Pg.5 College course III Book.	

						HnG ⁷					
7	1	Set Concepts	Venn diagrams	Displays information on Venn diagram.	Describes information on Venn diagram.	Given that $n(A) = 10$, $n(B) = 15$ and $n(AnB) = 6$, $n(A) = 10 \qquad n(B) = 15$ $4 \qquad 6 \qquad 9$ $n(A-B) = 10 - 6$ $= 4$	Guided discovery Guided discussion Demonstration	Representing information on Venn diagram.		A chart showing application of sets	Mk. Bk.6 Pg.23
7	2	Set Concepts	Venn diagrams	Displays information on Venn diagram.	Describes information on Venn diagram.	Finding number of elements in sets. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Guided discovery Guided discussion Demonstration	Representing information on Venn diagram.	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing application of sets	Mk. Bk. 7 Pg. 24 – 25 Mk. Bk. 7 Pg. 10 – 11

7	3				In class 30 pupils, 18 pupils like music (M), 21 pupils like Art (A). If					
		Set Concepts	Application of sets and Probability	Solves problems involving Venn diagram. Works out probability of vents using Venn diagram.	x pupils like both music and Art, $n(\pounds) = 30$ (a) Find the value of x. $18 - x + x + 21 - x = 30$ $18 + 21 + x - x - x = 30$ $39 + x - 2x = 30$ $39 - x = 30$ $39 - x = 30$ $39 - x = -9$ $(-x) = (-9)$	Guided discovery Guided discussion Demonstration	Solving life problems involving Venn diagram. Working out probability of vents using Venn diagram.	Critical Thinking Creative Thinking Effective Communication Problem - solving	A chart showing application of sets	Mk. Bk.7 Pg. 10 – 11 PLE Past Papers

						Mathematics Scheme of Work Term I						
7	4	Whole Numbers	Place Values of Numbers	Identifies the place value each digit in 6	Names place values up to millions	Write the place value of each digit in the number 97654 Tth Th H T O 9 7 6 5 4 9 - Ten thousands 7 - Thousands 6 - Hundreds 5 - Tens 4 - Ones	Guided discovery Guided discussion Explanation	Identifying the place value each digit in 6 digits		10	Mk. Bk. 6 rg.34 PLE Past Papers	
	5	Whole Numbers	Values of Numbers	Find values of digits	Names place values up to millions	Find the value of the digit in the thousands place value in the number 64,567. number 97654 Tth Th H T O 6 4 5 6 7 Value = Digit x place value = 4 x 1,000 = 4 000	Guided discovery Guided discussion Explanation	Working out values of digits	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing place values and values of digits	Mk. Bk.6 Pg.35 PLE Past Papers	
	6	Whole Numbers	Expanded Form	Expands 6 digit numbers	Reads numbers in expanded form	Write 49,673 in expanded form. (a) Place values Tth Th H T O 4 9 6 7 3 49,673 = $(4 \times 10.000) + (9 \times 1.000) + (6 \times 100) + (7 \times 10) + (3 \times 1)$ (b) Values Tth Th H T O 4 9 6 7 3 49,673 = $(4 \times 10.000) + (9 \times 1.000) + (6 \times 100) + (7 \times 10) + (3 \times 1)$ = $40.000 + 9.000 + 600 + 70 + 3$ (c) Powers/Exponents. Tth Th H T O $10^4 10^3 10^2 10^1 10^0$ 4 9 6 7 3 49,673 = $(4 \times 10.000) + (9 \times 1.000) + (6 \times 100) + (7 \times 10) + (3 \times 1)$	Guided discovery Guided discussion Explanation	Expanding numbers using place values, values and powers.	Criti Effectiv Prob	A chart showing plac	MK. BK.6 Pg.36 MK. BK.5 Pg.12	

					_	$\frac{=(4\times10^4)+(9\times10^3)+(6\times10^2)+(7\times10^1)+(3\times10^0)}{(3\times10^3)+(6\times10^2)+(7\times10^1)+(3\times10^0)}$					
7	7	nbers	Expanded Form in short	Finds expanded numbers	Reads and writes expanded numbers in short form	(a) $(4x10,000) + (9x1,000) + (6x100) + (7x10) + (3x1)$ = $40,000 + 9,000 + 600 + 70 + 3$ = 49.673 (b) $40,000 + 9,000 + 600 + 70 + 3 = 49.673$ (c) $(4x10^4) + (9x10^3) + (6x10^2) + (7x10^1) + (3x10^0)$ = $4x10,000) + (9x1,000) + (6x100) + (7x10) + (3x1)$ = $40,000 + 9,000 + 600 + 70 + 3$ = 49.673	overy ussion ion	Writing expanded numbers in short form	nking nunication olving ce		Mk. Bk.5 Pg. 14 PLE Past Papers
8	1	Whole Numbers	Forming Numbers from digits	Forms numbers from digits	Reads numbers formed from digits	Given the digits 2, 4, 0, 8. Form the; (i) Largest number. 8, 4, 2, 0 = 8,420 (ii) Smallest number. 2, 0, 4, 8 = 2,048	Guided discovery Guided discussion Explanation	Forming Numbers from digits	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing place values and values of digits	
	2	Whole Numbers	Writing numbers in words	Writes reads and in words and figures up to 9,999,999	Writes numbers in figures and words correctly	Write 1,486,719 in words. Millions Thousands Units 1 486 719 1,486,719 = Onemillion, four hundred eighty sixthousand, seven hundred nineteen.	Guided discovery Guided discussion Explanation	Writing numbers in words up to 9,999,999	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing p	Mk. Bk.6 rg.39 Mk. Bk.5 rg.15

8	3	Whole Numbers	Writing numbers in figures	Reads and writes in words and figures up to 9,999,999	Writes numbers in figures and words correctly	Write in figures: Five million, four hundred thousand, seven hundred sixteen. Five million	Guided discovery Guided discussion Explanation	Reading numbers in words up to 9,999,999		A chart showing place values and values of digits	MK. BK.5 Pg. 38 MK. BK.5 Pg. 16
	4	Whole Numbers	Rounding off	Rounds off whole numbers	Names place values up to millions	Round off 4,835 to the nearest tens. Th	Guided discovery Guided discussion Explanation	Rounding off whole numbers	Critical Thinking Effective Communication Problem – solving Endurance		MK. BK.5 Pg.17 PLE Past Papers
	5	Whole Numbers	Roman Numerals	Uses Roman numerals up to M	Cites examples where Roman numerals are used	(a) Expanding and Expressing Hindu-Arabic in Roman Numerals. Write 124 in Roman Numerals. 124 = 100 + 20 + 4 = C + XX + IV = CXXIV	Guidec Guidec Exp	Reading and writing Roman numerals up to M	Critical Effective G	A chart showing Basic Roman numerals	MK. BK. 5,6 Pg. 21,50 MK. BK. 7 Pg. 23
8	6			⊃ <i>s</i>	e + - C	(b) Expressing Roman Numerals as Hindu-Arabic.	@ d -∵ ⊏ @			₹ 0 ₽	W A

						Write CDLXV as a Hindu-Arabic numeral. CDLXV = CD + LX + V = 400 + 60 + 5 = 465						
	7	Decimals	Place Values of Decimals	Identifies place values of digits	Names place values	Write the place value of each digit in the number 437.65 H T O Th Hth 4 3 7 6 5 4 - Hundreds 3 - Tens 7 - Ones 6 - Tenths 5 - Hundredths		Finding place values and values of numbers	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing place values and values of digits	MK. BK. 6 Pg. 44 PLE Past Papers	
9	1	Decimals	Values of Decimals	Finds the values of digits in decimals	Reads and writes of decimals	What is the value of 5 in the number 437.65? H T O . T th H th 4 3 7 . 6 5 Value = Digit x Place value $= 5 \times \frac{1}{100}$ $= \frac{5}{100}$ $= 0.05$	Guided discovery Guided discussion Explanation	Finding place values and values of numbers	Ci Effec Pr	A chart showing place values and values of digits	MK. BK. 6 Pg. 44 PLE Past Papers	

9	2	Decimals	Expanded Form	Expands numbers	Reads numbers in expanded form	Write 437.65 in expanded form using; (a) Place values	Guided discovery Guided discussion Explanation	Expanding numbers using place values, values and powers.	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing expansion of decimals	Mk. Bk. 7 Pg. 29	
	3	Deci	Expan ded	Finds expan	Reads and write s	(a) $(4\times100)+(3\times10)+(7\times1)+(6\times\frac{1}{10})+(5\times\frac{1}{100})$ = $400 + 30 + 7 + \frac{6}{10} + \frac{5}{100}$	Guide d disco very Guide	Writi ng expan ded	Critic al Think ing Effec tive		Mk. Bk. 7 Pg. 29	

						$= 400 + 30 + 7 + 0.6 + 0.05$ $= 437.65$ (b) $(4\times10^2) + (3\times10^1) + (7\times10^0) + (6\times10^{-1}) + (5\times10^{-2})$ $= 400 + 30 + 7 + \frac{6}{10} + \frac{5}{100}$ $= 400 + 30 + 7 + 0.6 + 0.05$ $= 437.65$ (c) $400 + 30 + 7 + 0.6 + 0.05$ $= 437.55$						
9	4	Decimals	Writing decimals in words	Writes reads and in words and words	Reads and writes of decimals in words	Write 437.65 in words. H T O T HT AT A A A A A A A A A A A A A A A A	Guided discovery Guided discussion Explanation	Reading numbers in words	Critical Thinking Effective Communication Problem – solving Endurance	A chart showing place values and values of decimals	MK. BK 5.6 Pg 70,38 MK. BK.7 Pg.27	
	5	Decimals	Writing decimals in figures	Writes reads and in words and figures	Reads and writes of decimals in words	Write in figures: twenty one and seventy five hundredths. Twenty one = 21 Seventy five hundredths = +0.75 = 21.75	Guided discovery Guided discussion Explanation	Reading numbers in words	Critical Thinking Effective Communication Problem-solving Endurance	A chart showin	MK. BK.5,6 Pg.71,45 MK. BK.7 Pg.27	

6	imals	imals	alues	Round off 29.97 to the nearest tenths. T O Th Hith 2 9 7	cimals		48	
7 2011 1011 1011 1011 1011 1011 1011 101	Rounding off dec	Rounds off dec	Names place v	29.9 +0.1 30.0 There, fore 29.97 () 30.0	Rounding off de		Mk. Bk.6 Pg.4 PLE Past Pape	