[9] Graph

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Pictographs	1	Read information from pictograph where one picture represents one item	16,17	U.12 U.13	
		2				
		3	Read information from pictograph where one picture represents more than one item	82,83	U.76 U.77	
		4				
		5	Prepare a table from information. Draw pictograph from information in a table.	16-2	U.12	
2	Bar graphs	6	Read information from bar graph where one bar represents one item			M1
		7				
		8	Read information from bar graph where one bar represents more than one item			M2
		9				
		10	Show information on a grid, squared paper or given axis by shading the bars.			
		11	Draw a table and a bar graph from information	50	U.44	
		12	Prepare a table from information. Draw bargraph from information in a table.			M1
		Post				

Grade4

TERM 1

Major Topics		Sub Topics			Learner Outcomes	essons	
1	Number Concepts 1	1	5-digit number	B01	Read and write numbers up to five-digit numbers in words and figures	1	11
		2	Use of Place Value	A02	Identify place values in a four-digit number.	3	
				B02	Identify the place value of any digit in a 5-digit		
		3	Expanded Notation	A03	Calculate total value of a three-digit number.	1	
				B03	Tell the total value of a digit in a five-digit numeral		
				B04	Solve problems involving place value and total value.		
				B05	Write a four-digit number in expanded notation.		
		4	Odd and Even Numbers	A04	Identify odd and even numbers.	1	
				B06	Identify odd and even numbers.		
		5	Number Sequence	B08	Complete a given sequence through counting by 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, 10s, 20s, 25s, and 50s.	2	
		6	Approximation	A05	Round off two-digit numbers to nearest 10.	2	
				B09	Round off a two-digit or a three-digit number to the nearest 10.		
				B10	Round off a three-digit number to the nearest 10 and 100.		
		7	Roman Number	B11	Write Roman Numerals through 12.	1	
2	Whole Number Operations	1	Addition	A12	Subtract and add a two-digit number without and with regrouping.	4	20
				C01	Add sets of numbers up to five-digit numbers.		
		2	Subtraction	A12	Subtract and add two-digit numbers without and with regrouping.	5	
				C02	Subtract a pair of five-digit numbers.		
				C03	Combine addition and subtraction using brackets.		
		3	Multiplication	A10	Multiply by a one-digit number.	5	
				C04	Multiply a whole number by 2,3,4,5,6,7,8,9,20,100.		
				C05	Multiply a two-digit or three-digit number by another two-digit number.		
		4	Division	A11	Divide a one-digit number by a one-digit number.	6	
				C06	Divide by a one digit and by a two-digit number.		
3	Money	1	Reading and writing sums of money	D01	Read and write sums of money up to $99,999.99.	1	8
		2	Concept of value of coins and notes	D02	Make amounts of money using various combinations of notes and coins.	1	
		3	Bills	D03	Calculate the total cost of a set of items.	4	
				D04	Calculate the total cost of a number of similar items given the cost of one of them.		
				A08	Give change from a specific amount of money.		
				D05	Calculate change.		
		4	Language associated	D06	Solve one-step and two-step word problems involving buying and selling.	1	
				D07	Use vocabulary relating to spending.		
		5	Banking	D08	Filling in deposit and withdraw slips.	1	
			Money form Different Contries		*G6		

					Learner Outcomes		
4	Time 1	1	Reading time and time notation	A09	Tell time on the half-hour.	3	9
				G01	Tell time on the hour, the half hour, the quarter hour, and at five-minute intervals.		
				G02	Write the notation for times above.		
		2	Language associated with time	G03	Use time vocabulary correctly: 'a.m.', 'p.m.', 'noon', 'midday', 'later', 'now', 'earlier', 'soon', 'dawn'.	2	
		3	Addition and subtraction of time	G09	Add and subtract time in hours, mins.	4	
				G10	Calculate duration of an event or the time between events.		

TERM 2

Major Topics		Sub Topics			Learner Outcomes	Lessons	
5	Number Concepts 2	8	Factors and Multiples	A01	State multiplication facts to 9x9.	5	13
				B07	Recall the multiplication and division facts for the tables 2, 3, 4, 5, 6, 7, 8, 9, 10, instead of reciting		
				B15	List all the factors of a given number.		
				B12	Explain the concepts of multiples and factors.		
				B13	List sets of multiples to find common multiples of two numerals.		
		9	L.C.M.	B14	List the LCM of two numbers.	2	
			H.C.F.		*G5	2	
		10	Prime Numbers	B16	Explain the concepts of prime and composite	2	
		11	Problem Solving			2	
6	Fractions	1	Concept of fractions	E01	Identify proper fractions, improper fractions, and mixed numbers.	2	20
				E02	Explain what is meant by a proper, improper or mixed fraction.		
		2	Comparison of mixed and improper fractions	E02	Convert an improper fraction to a mixed number and a mixed number to an improper fraction.	4	
		3	Addition and subtraction of fractions with like denominators.	E05	Add a pair of simple fractions or mixed numbers where the denominators are the same.	3	
				E06	Subtract a pair of simple fractions or mixed numbers where the denominators are the same.		
		4	Equivalent Fractions	E03	Find sets of equivalent fractions for a given fraction.	2	
		5	LCD	E04	Find the LCD of 2 fractions.	2	
		6	Addition and subtraction with unlike but related denominators	E07	Add 2 fractions with unlike but related denominators.	5	
				E08	Subtract 2 fractions where the denominators are unlike but related.		
				E08	Add or subtract simple fractions using brackets.		
		7	Multiplication by whole numbers	E09	Multiply a fraction by a whole.	2	
7	Measurement	1	Length	A06	Identify and use unit of measurement for length, mass and capacity (m, cm, g, kg).	4	16
				F01	(a) Estimate lengths of objects in metres or centimeters. (b) Measure and record lengths of objects in metres or centimeters.		
		2	Concept of perimeter	F07	Calculate the perimeter of squares, rectangles and other polygons.	2	
		3	Concept of area	F06	Calculate the area of squares and rectangles by using the formula, LxW.	3	

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	4	Weight/Mass	A06	A06 Identify and use unit of measurement for length, mass and capacity (m, cm, g, kg).	3	
			F02	(a) Estimate mass of objects in grams or kilograms. (b) Measure and record the mass of objects in grams and kilograms.		
	5	Capacity	A06	A06 Identify and use unit of measurement for length, mass and capacity (m, cm, g, kg).	3	
			F03	(a) Estimate the capacity of containers. (b) Measure and record the capacity of containers in milliliters, centiliters or litres.		
			F04	Recall the capacity of certain well-know containers.		
	6	Selection of appropriate units of measurement	F05	Select the most appropriate unit of length, mass or capacity for measuring an item.	1	

TERM 3

Major Topics		Sub Topics			Learner Outcomes	essons	
8	Decimals	1	Concepts of decimals			1	12
		2	Place value of decimals	E12	Identify the place value and the total value of digits in a decimal number.	2	
		3	Relationship between decimals and common fractions	E10	Write a fraction in decimal form: only fractions with denominator 10.	2	
				E11	Express a decimal fraction as a common fraction.		
		4	Comparison of decimals	E15	Use the symbols '>', '<' to compare a pair of decimal numbers.	2	
				E16	Write a set of given decimal numbers in order of size.		
		5	Ordering decimals	E14	Complete a sequence involving decimal numbers.	1	
		6	Addition and subtraction of decimals	E13	Add and subtract decimals up to hundredths.	4	
9	Time 2	4	The calendar	G05	Use a calendar to check the number of days in a month, the length of time from one date to another within a given month and from one event to another.	5	7
				G06	Use a calendar to check the number of days within a given period, from one month to another within the same year.		
				G04	Write dates correctly in both ways. Be aware of conventional methods used in U.S.A.		
		5	Language associated with specific periods of time.	G07	State the relationship between 'week and day' 'year and month' 'year and day' ' leap year and day'	2	
				G08	Discuss the terms 'jubilee', 'silver', 'diamond','golden anniversary', as well as 'millennium', 'century', 'decade', 'centurion'.		
10	Geometry	1	Concept of an angle	H01	Recognize angles in figures and shapes.	2	12
				H02	Explain the concept of right angles.		
				A07	Differentiate between angles and sides.		
		2	Properties of plane shapes	H03	Identify the number of sides and angles in two-dimension (plane) shapes such as squares, rectangles, triangles, pentagons,hexagons.	6	
				H04	Explain the concept of radius, radii and diameter of a circle.		
				H05	Identify the center, any radius and diameter of a circle.		

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		3	Lines of symmetry	H07	Identify the number of lines of symmetry contained in a plane figure.	1	
		4	Solids	H06	Describe 3-D shapes: cube, cuboid, cone, cylinder, sphere, in terms of number of flat sides, curved sides, edges,vertices.	3	
11	Graphs	1	Collecting data			1	8
		2	Pictographs			2	
		3	Bar Graphs	A14	Draw bar graphs from given information.	2	
				I01	Read information from a bar graph or a pictograph where one bar or one picture represents one or more item(s).		
				I04	I04 Prepare a table from information in a pictograph, bar graph and line graph.		
				I05	I05 Draw pictographs, bar graphs and line graphs from information given in a table.		
				I06	Solve problems using the date presented in a graph.		
		4	Line Graphs	I02	Introduce the concept of line graph.	3	
				I01	Read information from a bar graph or a pictograph where one bar or one picture represents one or more item(s).		
				I03	Read information from line graphs.		
				I04	Prepare a table from information in a pictograph, bar graph and line graph.		
				I05	Draw pictographs, bar graphs and line graphs from information given in a table.		
				I06	Solve problems using the date presented in a graph.		

[1] Number Concepts 1

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	5-digit number	1	Read and write numbers up to 5-digit numbers in words and figures	8	Ch.1	
2	Use of Place Value	2	Identify the place value of any digit in a 4-digit number.	7, 8	Ch.1	
		3	Identify the place value of any digit in a 5-digit number.	7, 8	Ch.1	
		4	Solve problems involving place value and total value and compare numbers.	8, 9	Ch.1	
3	Expanded Notation	5	Write a 4-digit number in expanded notation using the total value.	7, 8	Ch.1	
4	Odd and Even Numbers	6	Identify odd and even numbers.	26	Ch.5	
5	Number Sequence	7	Count by 2s, 5s, 10s, 20s, 25s, 50s.	5, 6, 33	Ch.1 Ch.5	
		8	Count by 3s, 4s, 6s, 7s, 8s and 9s.			
6	Approximation	9	Round off a 2-digit or a 3-digit number to the nearest 10.	10	Ch.1	
		10	Round off a 3-digit number to the nearest 100.	10	Ch.1	
7	Roman Number	11	Write Roman Numerals through 12.	11	Ch.1	
		Post				

[2] Whole Number Operations

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Addition	1	Add a two-digit number without and with regrouping.	52,53,54 55	Ch.9	
		2				
		3	Practice Addition ploblems	57		
		4	Add sets of numbers up to 5-digit numbers.			M1
2	Subtraction	5	Subtract a 2-digit number without and with regrouping.	58,59,60 61,62	Ch.9	
		6				
		7	Practice Subtraction ploblems	63		
		8	Subtract a pair of 5-digit numbers.			M1
		9	Combine addition and subtraction using brackets.	56		
		Post				
3	Multiplication	10	Multiply a whole number by 2,3,4,5,6,7,8,9	64	Ch.9	
		11	Multiply a whole number by 20,100. Multiply a 2-digit and 3-digit number by another 1-digit number with and without regrouping.	65,66,67		
		12	Multiply a 2-digit and 3-digit number by another 2-digit number without regrouping.	68		M2
		13	Multiply a 2-digit and 3-digit number by another 3-digit number with regrouping.	68		M2
		14	Practice Multiplication ploblems	69		
		Post				
4	Division	15	Divide a 1-digit number by a 1-digit number without remainder. Multiplication and division facts.	70,71,72 73,74	Ch.9	
		16				
		17	Practice Division ploblems	71E,72,73C		
		18	Divide a 1-digit number by a 1-digit number with remainder.	75		
		19	Divide by a 1-digit and by a 2-digit number without and with remainder.			M3
		20				
		Post				

[3] Money

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Reading and writing sums of money	1	Read and write sums of money up to $99,999.99.	21	Ch.4	
2	Concept of value of coins and notes	2	Make amounts of money using various combinations of notes and coins.			M1
3	Bills	3	Estimate and calculate the total cost of a set of items.	22	Ch.4	
		4	Calculate the total cost of a number of similar items given the cost of one of them.			M2
		5	Give change from a specific amount of money.			M3
		6	Calculate change.			
4	Langeuage associated	7	Practice problem solving involving buying and selling. Use vacabulary relating to spending: 'expensive','cheap','current price','reduce','increase','sale', 'profit','loss','discount','hire purchase','withdrawal','deposit', 'installment'.	23	Ch.4	
5	Banking	8	Filling in deposit and withdraw slips.			G5:P65
		Post				

[4] Time 1

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Reading time and Time notation	1	Tell and write the notation for time on the hour and half hour.			M1
		2 3	Tell and write the notation for time on the hour, the half hour, the quarter hour,and at five-minute intervals.	40,41,43	Ch.7	
2	Language associated with time	4 5	Use time vocabulary correctly: 'a.m.' ,'p.m.', 'noon', 'midday', 'later', 'now', 'earlier', 'soon', 'dawn'.	42	Ch.7	
3	Addition and Subtraction of Time	6 7	Add and subtract time in hours, mins.	44B,45AB	Ch.7	
		8 9	Calculate duration of an event or the time between events.	46A	Ch.7	
		Post				

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[5] Number Concepts 2

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
8	Factors and Multiples	12	Explain the concepts of multiples and factors.	27, 29	Ch.5	
		13 14	List all the factors of a given number.	27, 28	Ch.5	
		15 16	List sets of multiples to find common multiples of two numerals.	28, 29	Ch.5	
9	L.C.M.	17 18	List the LCM of two numbers.	30	Ch.5	
10	H.C.F.	19 20	List the H.C.F. of two numbers	31	Ch.5	
11	Prime Numbers	21	Explain the concepts of prime and composite numbers.	32	Ch.5	
		22	Find the prime numbers between 1 to 20.	32	Ch.5	
12	Problem Solving	23 24	Solve problems involving number concepts.	34, 35	Ch.5	
	Post					

[6] Fractions

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Concept of fractions	1	Identify proper fractions, improper fractions, and mixed numbers.	36, 37	Ch.6	
		2	Explain what is meant by a proper, improper or mixed fraction.	36, 37	Ch.6	
2	Comparison of mixed and improper fractions	3 4	Convert an improper fraction to a mixed number.			
		5 6	Convert a mixed number to an improper fraction.			
3	Addition and subtraction of fractions with like denominators.	7 8 9	Add a pair of simple fractions or mixed numbers where the denominators are the same.	80, 82, 83	Ch.10	
	Post					
4	Equivalent Fractions	10	Explain the sets of equivalent fractions with pictures.	38	Ch.6	
		11	Find sets of equivalent fractions for a given fraction.	38	Ch.6	
5	LCD	12	Find the common denominators.	76, 77	Ch.10	
		13	Find the LCD of 2 fractions with L.C.M.	76, 77, 81	Ch.10	
6	Addition and subtraction with unlike but related denominators	14 15	Add 2 fractions with unlike but related denominators.	81	Ch.10	
		16 17	Subtract 2 fractions where the denominators are unlike but related.	81	Ch.10	
		18	Add or subtract simple fractions using brackets.			M1
7	Multiplication by whole numbers	19 20	Multiply a fraction by a whole number.	84	Ch.10	
	Post					

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[7] Measurements

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Length	1 2	Estimate, measure and record lengths of objects in metres, centimetres amd kilometres and select the most appropriate unit of length for measuring an item.	47, 48, 49	Ch.8	
		3	Measure curves using string or thread and a ruler.	50	Ch.8	
		4	Change the units of length.			M1
2	Concept of perimeter.	5	Calculate the perimeter of squares and rectangles.	133, 134, 138	Ch.19	132, 138
		6	Calculate the perimeter of other polygones..	134	Ch.19	
3	Concept of area.	7	Explain the concepts of area.	135	Ch.19	
		8	Calculate the area of squares and rectangles by using the formula, LxW.	138	Ch.19	
		9	Solve problems of the relationship between area and perimeter.	139	Ch.19	
4	Weight/Mass	10 11	Estimate, measure and record lengths of objects in grams and kilograms and select the most appropriate unit of mass for measuring an item.	107, 108, 109	Ch.14	
		12	Change the units of mass.	110, 111	Ch.14	
5	Capacity	13 14	Estimate, measure and record the capacity of containers in mililitres, centilitres or litres and select the most appropriate unit of capacity for measuring an item.	140, 141, 142	Ch.20	
		15	Change the units of capacity. (*l* to *ml*, *l* to *cl*, *cl* to *ml*)	142	Ch.20	
6	Selection of appropriate units	16	Select the most appropriate unit of length, weight / mass and capacity for measuring an item.			M2
		Post				

[8] Decimals

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Concept of decimals	1	Explain the concept of decimals using number line and read and write decimals in words and figures.	102, 103, 104 105	Ch.13	M1
2	Place value of decimals	2 3	Identify the place value and total value of digits in a decimal number up to hundredths.	103, 104, 105	Ch.13	
3	Relationship between decimals and common fractions	4	Write a fraction in decimal form: only fractions with denominator 10.	102	Ch.13	
		5	Express a decimal number as a common fraction.	102	Ch.13	
4	Comparison of decimals	6	Use the symbols >, < to compare a pair of decimal numbers.	104	Ch.13	
		7	Write a set of given decimal numbers on order of size.	104	Ch.13	
5	Ordering	8	Complete a sequence involving decimal numbers.	104	Ch.13	
6	Addition and subtraction of decimals	9	Write addition and subtract in vertically.	106	Ch.13	
		10	Add decimals up to hundredths without regrouping.	106	Ch.13	
		11	Subtract decimals up to hundredths without regrouping.	106	Ch.13	
		12	Practice problem solving .	106	Ch.13	
		Post				

[9] Time 2

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
4	The Calendar	10 11	Write dates correctly using both methods 21/05/2003 and 21st May,2003 Be aware of conventional methods used in U.S.A.	45D	Ch.7	
		12 13 14	Use a calendar to check the number of days in a month, the length of time from one date to another within a given month and from one event to another. Use a calendar to check the number of days within a given period, from one month to another within the same	45C,46B	Ch.7	
5	Language associated with specific periods of time.	15	State the relationship between 'week and day' 'year and month' 'year and day' ' leap year and day'			G5:P98
		16	Discuss the terms 'jubilee', 'silver', 'diamond','golden anniversary', as well as 'millennium', 'century', 'decade', 'centurion'.			G6:P111
		Post				

[10] Geometry

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Concept of an angle	1 2	Recognize angles in figures and shapes. Explain the concept of right angles. Differentiate between angles and sides.	91,92,93	Ch.11	
2	Properties of plane shapes	3	Identify the number of sides in 2-D shapes-squares rectangles, triangles, pentagons, hexagons.	94,95	Ch.12	
		4 5	Identify the paroperties in terms of sides and angles in 2-D shapes above.	97,98,99 100	Ch.12	
		6	Identify curves and circles	118,119	Ch.16	
		7 8	Explain the concept of radius,radii and diameter of a circle.	120	Ch.16	G6:P79
4	Lines of symmetry	9	Identify the number of lines of symmetry contained in a plane figure.	122, 123, 124	Ch.17	
3	Solids	10	Identify solids in real life and in diagrams.	16,17	Ch.3	
		11	Describe solids - cube,cuboid, cone, cylinder, sphere, in terms of number of flat sides, curved sides, edges, vertices.	18	Ch.3	
		12	Draw and cut out nets of the solids.	19,20	Ch.3	
		Post				

[11] Graph

Sub Topic		Lesson No.	Specific Objective of the plan	Related Pages in the Math Text Book	Unit / Chapter Number	Teaching Materials
		Pre				
1	Collecting data	1	Collect data in three different ways.	12,13,14	Ch.2	
2	Pictographs	2	Prepare a table from information in a pictograph.	113,114	Ch.15	
		3	Interpret picto graphs Solve problems using the data presented in a pictograph.	115,116	Ch.15	
3	Bar graphs	4	Introduce the concept of bar graph.	125	Ch.18	
		5	Solve problems using the data presented in a bar graph.	126	Ch.18	
4	Line graphs	6	Introduce the concept of line graph.	127	Ch.18	
		7	Solve problems using the data presented in a line graph.	128	Ch.18	
		8	Draw line graphs from information given in a table.	129,131B-1	Ch.18	
		Post				