

Mathematic schemes of work for standard
7 TERM 1 YEAR

WE EK	LE SS ON	TOPIC	SUB-TOPIC	OBJECTIVES	LEANING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENC ES	REM ARK S
1	1	PRE- NUMBE RS	Place value	By the end of the lesson the learner should be able to identify the place value of a given numbers	-Grouping - Explanation -Working out -demonstration -Discussion	-Objects like tins, books, pencils, cups, pictures, etc -place value chart	PM PB7 Pg2 TG 7Pg1 NPM PB7 Pg3 TG b7Pg2	
	2		Total value	By the end of the lesson the learner should be able to identify total value of a given number	-Grouping objects - arranging -Labelling and matching objects according to common features.	place value chart	PM PB7 Pg4 TG 7Pg3 NPM PB7 Pg6 TG b7Pg4	
2	3		Reading numbers	By the end of the lesson the learner should be able to read and write numbers in words and in symbols	-- Explanation -Working out -demonstration -reading	place value chart	PM PB7 Pg7 TG 7Pg4 NPM PB7 Pg8	

							TG b7Pg5	
	4		Writing numbers	By the end of the lesson the learner should be able to read and write numbers in words and in symbols	-- Explanation -Working out -demonstration -writing	place value chart+	PM PB7 Pg7 TG 7Pg4 NPM PB7 Pg8 TG b7Pg4	
	5		Squares of numbers	By the end of the lesson the learner should be able to work out squares of numbers	- Explanation -Working out -demonstration -Discussion	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg8 TG 7Pg5 NPM PB7 Pg8 TG b7Pg5	
	6		Square roots of numbers	By the end of the lesson the learner should be able to workout the square root of numbers	- Explanation -Working out -demonstration -Discussion	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg8 TG 7Pg5 NPM PB7 Pg9 TG b7Pg6	
	7		Square and square root	By the end of the lesson the learner should be able to	- Explanation	Objects like tins, books,	PM PB7	

			of numbers	work out square numbers and square root of perfect squares	-Working out -demonstration -Discussion	bottles, pictures, of different size	Pg8 TG 7Pg5 NPM PB7 Pg8 TG b7Pg5	
3	1		Divisibility test for 11	By the end of the lesson the learner should be able to determine numbers divisible by eleven	- Explanation -Working out -demonstration -Divide	Objects like tins, books, bottles, pictures, of different size	PM PB7 Pg7 TG 7Pg7 NPM PB7 Pg8 TG b7Pg5	
	2		Divisibility test	By the end of the lesson the learner should be able to work out a problem involving divisibility test of eleven	- Explanation -Working out -demonstration -Divide	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc.	PM PB7 Pg7 TG 7Pg6 NPM PB7 Pg8 TG b7Pg6	
	3	Fraction s	Square of fractions	By the end of the lesson the learner should be able to work out square of fraction	• Identifying • Matching • Comparing-Explanation	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror,	PM PB7 Pg10 TG 7Pg8 NPM PB7 Pg12	

					-Working out -demonstration -Discussion	Leaves, etc.	TG b7Pg 7	
	4		Square root of fractions	By the end of the lesson the learner should be able to workout square root of a fraction	- Explanation -Working out -demonstration -Discussion	Chart	PM PB7 Pg11 TG 7Pg NPM PB7 Pg12 TG b7Pg7	
	5		Perfect squares	By the end of the lesson the learner should be able to work out squawroot of fraction involving perfect squares	- Explanation -Working out -demonstration -Discussion	Chart	PM PB7 Pg11 TG 7Pg NPM PB7 Pg12 TG b7Pg8	
	6	Decimals	Place value	By the end of the lesson the learner should be able to identify place value of digits in decimals	- Explanation -Working out -demonstration -Discussion	place chart value	PM PB7 Pg12 TG 7Pg9 NPM PB7 Pg14 TG b7Pg11	

	7		Total value	By the end of the lesson the learner should be able to identify total value of digits in decimals	- Explanation -Working out -demonstration -Discussion	place chart	value	PM PB7 Pg12 TG 7Pg NPM PB7 16Pg14 TG b7Pg	
4	1		Conversion of decimal to fraction	By the end of the lesson the learner should be able to convert non-recurring decimal to fraction	- Explanation -Working out -demonstration -Conversion	place chart	value	PM PB7 Pg15 TG 7Pg NPM PB7 Pg18 TG b7Pg	
	2			By the end of the lesson the learner should be able to convert fraction to decimal	- Explanation -Working out -demonstration -Discussion	place chart	value	PM PB7 Pg17 TG 7Pg13 NPM PB7 Pg TG b7Pg20	
	3			By the end of the lesson the learner should be able to convert fraction to decimal involving non-recurring and recurring decimals	- Explanation -Working out -demonstration	place chart	value	PM PB7 Pg22 TG 7Pg NPM PB7 Pg32	

					-Discussion		TG b7Pg22	
	4			By the end of the lesson the learner should be able to work out square of decimals	- Explanation -Working out -demonstration -Discussion	place value chart	PM PB7 Pg25 TG 7Pg NPM PB7 Pg TG b7Pg	
	5			By the end of the lesson the learner should be able to work out square root of decimals involving perfect squares	- Explanation -Working out -demonstration -Discussion	place value chart	PM PB7 Pg30 TG 7Pg NPM PB7 Pg34 TG b7Pg	
	6	Percentages	Conversion	By the end of the lesson the learner should be able to convert percentage into fraction	- Explanation -Conversion -demonstration -Discussion	Conversion chart Chalk board layout	PM PB7 Pg34 TG 7Pg27 NPM PB7 Pg35 TG b7Pg	
	7			By the end of the lesson the learner should be able to convert fraction into percentage.	- Explanation -Working out	Multiplication table	PM PB7 Pg37 TG 7Pg27	

					-demonstration -Discussion		NPM PB7 Pg38 TG b7Pg	
5	1			By the end of this topic, the pupils should be convert decimal into percentage	- Explanation -Working out -demonstration -Discussion	Multiplication table	PM PB7 Pg40 TG 7Pg NPM PB7 Pg45 TG b7Pg	
	2			By the end of this topic, the pupils should be able to convert percentage into decimals	- Explanation -Working out -demonstration -Discussion	Multiplication table	PM PB7 Pg42 TG 7Pg32 NPM PB7 Pg TG b7Pg	
	3	OPERATI ON	Whole numbers Addition	By the end of this topic, the pupils should be able to add whole numbers by whole numbers correctly	- Explanation -Addition -demonstration -Discussion	Multiplication table	PM PB7 Pg42 TG 7Pg32 NPM PB7 Pg46 TG b7Pg36	
	4		subtraction	By the end of this topic, the	- Explanation	Multiplication table	PM PB7	

				pupils should be able to subtract whole numbers by whole numbers correctly	-Subtraction -demonstration -Discussion		Pg41 TG 7Pg33 NPM PB7 Pg47 TG b7Pg	
	5		Multiplication	By the end of this topic, the pupils should be able to multiply whole number by whole numbers correctly	- Explanation -Multiplication -demonstration -Discussion	Multiplication table	PM PB7 Pg41 TG 7Pg NPM PB7 Pg47 TG b7Pg36	
	6		Division	By the end of this topic, the pupils should be able to divide whole numbers by up to 3-digit numbers	- Explanation -Division -demonstration -Discussion	Multiplication table	PM PB7 Pg42 TG 7Pg33 NPM PB7 Pg48 TG b7Pg36	
	7		Mixed exercise	By the end of the lesson the learner should be able to do a revision exercise on the work covered.	- Explanation -Working out -demonstration -Discussion	Multiplication table	PM PB7 Pg42 TG 7Pg33 NPM PB7 Pg	

							TG b7Pg	
6	1		Combined operation	By the end of this topic, the pupils should be able to work out problems involving combined operation in whole numbers	- Explanation -Working out -demonstration -Discussion	Multiplication table	PM PB7 Pg43 TG 7Pg34 NPM PB7 Pg TG b7Pg38	
	2		Number sequence	By the end of this topic, the pupils should be able to recognize and identify number sequence involving whole numbers	- Explanation -addition -demonstration -Discussion	Multiplication table	PM PB7 Pg43 TG 7Pg33 NPM PB7 48Pg48 TG b7Pg	
	3	Fraction	Addition	By the end of this topic, the pupils should be able to work out addition of fraction by fraction	- Explanation -Working out -demonstration -Discussion	Place value table	PM PB7 Pg32-43 TG 7Pg23 NPM PB7 Pg TG b7Pg22	
	4		Subtraction	By the end of this topic, the pupils should be able to work out subtraction of	- Explanation -Working out	Chalkboard layout	PM PB7 Pg38	

				fraction by fraction	-demonstration -Discussion		TG 7Pg NPM PB7 Pg36 TG b7Pg	
	5		Multiplication	By the end of this topic, the pupils should be able to work out multiplication of fraction by fraction	- Explanation -Working out -Multiplication -Discussion	Place value table	PM PB7 Pg37 TG 7Pg NPM PB7 Pg38 TG b7Pg29	
	6		Division	By the end of this topic, the pupils should be able to work out division of fraction by fraction	- Explanation -Working out -demonstration -Division	Chalkboard layout	PM PB7 Pg42 TG 7Pg NPM PB7 Pg42 TG b7Pg29	
	7		Combined operation	By the end of this topic, the pupils should be able to work out combined operation involving fraction	- Explanation -Working out -demonstration -Discussion	Place value table	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	

8	1		Number sequence	By the end of this topic, the pupils should be able to work out number sequence involving fraction	- Explanation -Working out -demonstration -Discussion	Chalkboard layout	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	2		Revision	By the end of the lesson the learner should be able to do a revision exercise on the work covered.	- Explanation -Working out -demonstration -revision	Place value table	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	3	Decimals	Addition	By the end of the lesson the learner should be able to work out addition involving decimal and decimals	- Explanation -Working out -demonstration -Discussion	Place value table	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	4		Subtraction	By the end of the lesson the learner should be able to work out subtraction involving decimal and decimals	- Explanation -subtraction -demonstration -Discussion	Chalkboard layout	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	

	5		Multiplication	By the end of the lesson the learner should be able to work out multiplication involving decimal and decimals	- Explanation -multiplication -demonstration -Discussion	Place value table	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	6		Division	By the end of the lesson the learner should be able to work out division involving decimal and decimals	- Explanation -dividing -demonstration -Discussion	Chalkboard layout	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	7			By the end of the lesson the learner should be able to work out combined operation involving decimal	- Explanation -Working out -demonstration -Discussion	Place value table	PM PB7 Pg33 TG 7Pg24 NPM PB7 Pg34 TG b7Pg	

WEEK	LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENCES	
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					-Discussion measuring	books, beads,	Pg43 TG b7Pg45	
	5		Hectometre	By the end of the lesson the learner should be able to recognize and identify hectometre (hm) as a unit of measuring length	Identifying Explanation -Working out -Drawing -Discussion	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	3-6		Converting units of measurement	By the end of the lesson the learner should be able to convert units of measurement from one to another	Explanation -Working out -Drawing -Discussion measurement	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg37 TG 7Pg32 NPM PB7 Pg43 TG b7Pg	
	7		Perimeter	By the end of the lesson the learner should be able to work out perimeter involving circles	Explanation -Working out -Drawing -Discussion	Objects like tins, books, bottles, pictures, of different size	PM PB7 Pg45 TG 7Pg NPM PB7 Pg TG b7Pg	

1 1	1		Perimeter of triangle	By the end of the lesson the learner should be able to work out perimeter involving triangles	Explanation -Working out -Drawing -Discussion	Objects like tins, books, bottles, pictures, of different size	PM PB7 Pg45 TG 7Pg NPM PB7 Pg44 TG b7Pg	
	2			By the end of the lesson the learner should be able to work out perimeter involving quadrilateral	Identifying the texture of an Explanation -Working out -Drawing -Discussion • Matching objects according	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc.	PM PB7 Pg47 TG 7Pg NPM PB7 Pg43 TG b7Pg34	
	3			By the end of the lesson the learner should be able to work out problems involving units of length in real life	Explanation -Working out -Drawing -Discussion	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, Leaves, etc.	PM PB7 Pg34 TG 7Pg NPM PB7 Pg TG b7Pg48	
	4		Area	By the end of the lesson the learner should be able to workout the area of a circle	Explanation -Working out -Drawing	Rectangles, circles, triangles of different	PM PB7 Pg48 TG 7Pg	

					-Discussion	sizes and colours	NPM PB7 49Pg47 TG b7Pg	
	5			By the end of the lesson the learner should be able to work out problems involving area of a circle using the formulae	Explanation -Working out -Drawing -Discussion		PM PB7 Pg49 TG 7Pg345 NPM PB7 Pg54 TG b7Pg	
	6		Trapezium	By the end of the lesson the learner should be able to calculate the area of the of a trapezium	Explanation -Working out -Answering -Discussion		PM PB7 Pg52 TG 7Pg NPM PB7 Pg TG b7Pg	
	7		Parallelogram	By the end of the lesson the learner should be able to calculate the area of parallelograms	Explanation -Working out -Answering -Discussion		PM PB7 Pg56 TG 7Pg45 NPM PB7 Pg TG b7Pg	

1 2	1		Area of a border	By the end of the lesson the learner should be able to work out problems involving area of a border	Explanation -Working out -Answering -Discussion		PM PB7 Pg99-110 TG 7Pg67-77 NPM PB7 Pg107-114 TG b7Pg70-75	
	2		Combined shape	By the end of the lesson the learner should be able to work out problems involving area combined shape	Explanation -Working out -Answering -Discussion		PM PB7 Pg99-110 TG 7Pg67-77 NPM PB7 Pg107-114 TG b7Pg70-75	
	3		Surface area of cuboids	By the end of the lesson the learner should be able to work out problems involving surface area of cuboids	Explanation -Working out -Answering -Discussion		PM PB7 Pg99-110 TG 7Pg67-77 NPM PB7 Pg107-114 TG b7Pg70-75	

	4		Surface area of cylinder	By the end of the lesson the learner should be able to work out problems involving surface area of cylinders	Explanation -Working out -Answering -Discussion		PM PB7 Pg99-110 TG 7Pg67-77 NPM PB7 Pg107-114 TG b7Pg70-75	
	5		Revisions	By the end of the lesson the learner should be able to do a revision exercise on the work covered.	Explanation -Working out -Answering Revision		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	6		Revisions	By the end of the lesson the learner should be able to do a revision exercise on the work covered.	Explanation -Working out -Answering Revision		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	7		Revisions	By the end of the lesson the learner should be able to do a revision exercise on the work covered.	Explanation -Working out -Answering		PM PB7 Pg TG 7Pg NPM PB7 Pg	

					Revision		TG b7Pg	
1 3	1	Revisions	Revisions	By the end of this topic, the pupils should be able to revise and answer question of the work covered in the term	Explanation -Working out -Answering Revision		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	2							
	3							
	4							
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	7							
1 4	1	Examinations		By the end of this topic, the pupils should be able to revise and answer question of the work	Explanation -Working out -Answering		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
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	4							
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 __7__ TERM __2__ YEAR _____

WE EK	LE SS ON	TOPIC	SUB-TOPIC	OBJECTIVES	LEANING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENC ES	
1	1	Volume	Cross section	By the end of the lesson the learner should be able to identify the cross-section are of a regular solid	Explanation Explanation -Working out -Answering -calculating -	-Objects like tins, books, pencils, cups, pictures, etc	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	2		Volume of cubes	By the end of the lesson the learner should be able to work out volume of cubes	-Working out Explanation -	-Objects like tins, -books, pencils, -cups, pictures, etc	PM PB7 Pg1102-122 TG 7Pg70-	

2					-Answering -calculating -measuring ring		80 NPM PB7 100Pg120 TG b7Pg76-79	
	3		Volume of cuboids	By the end of the lesson the learner should be able to work out volume of cuboids	Explanation Measuring Working out	Coloured Manila cards (squares, triangles, circles), books, beads,	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	4			By the end of the lesson the learner should be able to work out volume of cylinder through pilling	-Working out	Coloured Manila cards (squares, triangles, circles), books, beads,	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	5			By the end of the lesson the learner should be able to work out volume of cylinder using the	Explanation -Working out	Rectangles, circles, triangles	PM PB7 Pg1102-122 TG 7Pg70-	

3				formulae	-Answering -calculating -measuring	of different sizes and colours	80 NPM PB7 100Pg120 TG b7Pg76-79	
	6		Capacity	By the end of the lesson the learner should be able to workout problems involving capacity of cubes	Explanation -Working out -Answering -calculating -measuring	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	7		Capacity of cuboids	By the end of the lesson the learner should be able to workout problems involving capacity of cuboids	Identifying sizes of objects. group objects according to size Matching objects according to size	Objects like tins, books, bottles, pictures, of different size	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	1		Capacity cylinder	By the end of the lesson the learner should be able to workout problems involving capacity of	Explanation -Working out	Objects like tins, books, bottles, pictures, of	PM PB7 Pg1102-122 TG 7Pg70-	

				cylinders	-Answering -calculating -measuring	different size	80 NPM PB7 100Pg120 TG b7Pg76-79	
	2		Capacity and volume	By the end of the lesson the learner should be able to recognize and identify the relationship between capacity and volume	Explanation -Working out -Answering -calculating -measuring	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc.	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	3	Mass	Mass in Grams	By the end of the lesson the learner should be able to workout problems involving mass in grams	• Explanation -Working out -Answering -calculating -measuring	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, Leaves, etc.	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	4		Kilograms	By the end of the lesson the learner should be able to workout problems involving mass in	Explanation -Working out	Travel tables	PM PB7 Pg1102-122 TG 7Pg70-	

				kilograms	-Answering -calculating -measuring		80 NPM PB7 100Pg120 TG b7Pg76-79	
	5		Tonnes	By the end of the lesson the learner should be able to workout problems involving mass in tonnes	Explanation -Working out -Answering -calculating -measuring	Travel tables	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	6	Money	Discount	By the end of the lesson the learner should be able to workout problems involving discounts	Explanation -Working out -Answering -calculating	Travel tables	PM PB7 Pg1102-122 TG 7Pg70-80 NPM PB7 100Pg120 TG b7Pg76-79	
	7		Percentage discount	By the end of the lesson the learner should be able to workout problems involving percentage	Explanation -Working out	Scale	PM PB7 Pg1102-122 TG 7Pg70-	

				discount	-Answering -calculating		80 NPM PB7 100Pg120 TG b7Pg76-79	
4	1		Commission	By the end of the lesson the learner should be able to workout problems involving commission	Explanation -Working out -Answering -calculating		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
	2		Percentage commission	By the end of the lesson the learner should be able to workout problems involving percentage commission	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	3		Simple interest	By the end of the lesson the learner should be able to workout problems involving simple interest	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

							Pg42-67 TG b7Pg36-45	
	4		Simple interest	By the end of the lesson the learner should be able to workout problems involving simple interest	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	5		Hire purchase	By the end of the lesson the learner should be able to workout problems involving hire purchase	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	6		Hire purchase	By the end of the lesson the learner should be able to workout problems involving hire purchase	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

							Pg42-67 TG b7Pg36-45	
	7		bills	By the end of the lesson the learner should be able to workout problems involving bills in buying and selling	Explanation -Working out -Answering -calculating	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
5	1		Bills	By the end of the lesson the learner should be able to workout problems involving bills in buying and selling	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table Bill	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	2	Postal charges	Inland postal charges	By the end of the lesson the learner should be able to workout problems involving inland postal charges	Explanation -Working out -Answering -Discussion	Multiplication table Postal order	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					Demonstration		Pg42-67 TG b7Pg36-45	
	3		International postal charges	By the end of the lesson the learner should be able to workout problems involving international postal charges	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	4		International postal charges	By the end of the lesson the learner should be able to workout problems involving international postal charges	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	5		Money order	By the end of the lesson the learner should be able to workout problems involving money order	Explanation -Working out -Answering -Discussion	Multiplication table Money order	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					Demonstration		Pg42-67 TG b7Pg36-45	
	6		Postal orders	By the end of the lesson the learner should be able to workout problems involving postal orders	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	7		Telegram	By the end of the lesson the learner should be able to write a telegram	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
6	1		Telegram	By the end of the lesson the learner should be able to workout problems involving telegrams	Explanation -Working out -Answering -Discussion	Multiplication table telegram	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					Demonstration		Pg42-67 TG b7Pg36-45	
	2	Time and speed	Time	By the end of the lesson the learner should be able to workout problems involving time	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	3		Air flight	By the end of the lesson the learner should be able to workout problems involving air flight	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table Travel tables	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	4		Fare tables	By the end of the lesson the learner should be able to workout problems involving bus fare tables	Explanation -Working out -Answering -Discussion	Multiplication table Travel tables	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					Demonstration		Pg42-67 TG b7Pg36-45	
	5		Fare tables	By the end of the lesson the learner should be able to workout problems involving train fare ,time and distance tables	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table Travel tables	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	6			By the end of the lesson the learner should be able to workout problems involving converting units of speed	Explanation -Working out -Answering -Discussion conversion	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	7	T	Conversion	By the end of the lesson the learner should be able to workout problems involving converting units of speed	Explanation -Working out -Answering -Discussion	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					conversion		Pg42-67 TG b7Pg36-45	
8	1	Temperat ure	Direct comparison	By the end of this topic, the pupils should be able to compare temperature using hotter, warmer, colder and same as	Comparing -Answering -Discussion Demonstration	Multiplication table thermometer	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	2			By the end of the lesson the learner should be able to do a revision exercise on the work covered.	Explanation -Working out -Answering -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45	
	3		Degree Celsius (°C)	By the end of the lesson the learner should be able to recognise and identify degree Celsius as a unit of measuring temperature	Explanation -Working out -Answering -Discussion	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7	

					Demonstration		Pg42-67 TG b7Pg36-45	
4	Geometr y	Parallel line	By the end of the lesson the learner should be able to recognize and identify angles properties of parallel line	Explanation -Working out -Construction -Discussion Demonstration	Multiplication table Wood cutting	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45		
5			By the end of the lesson the learner should be able to recognize and identify angles properties of quadrilateral	Explanation -Working out -Construction -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg36-45		
6		Transversal	By the end of the lesson the learner should be able to work out division involving angle properties of a parallel lines	Explanation -Working out -Construction -Discussion	Multiplication table Drawing on a chart	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7		

					Demonstration		Pg42-67 TG b7Pg 36-45	
	7			By the end of the lesson the learner should be able to construct a right angled triangle using a ruler and a pair of compasses	Explanation -Working out -Construction -Discussion Demonstration	Multiplication table	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45	

WEEK	LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENCES	
9	1	Percentage	Construction of triangle	By the end of the lesson the learner should be able to construct an isosceles triangle using a ruler and a pair of compasses	- Explanation -Working out -Construction -Discussion Demonstration	-Objects like tins, books, pencils, cups, pictures, etc	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67	

10							TG b7Pg 36-45	
	2		Construction of triangle	By the end of the lesson the learner should be able to construct a equilateral triangle using a ruler and a pair of compasses	Explanation -Working out -Construction -Discussion Demonstration	-Objects like tins, -books, pencils, -cups, pictures, etc	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45	
	3		Circumscribe	By the end of the lesson the learner should be able to construct a circles passing through vertices using a ruler and a pair of compasses	-- Explanation -Working out -Construction -Discussion Demonstration	Coloured Manila cards (squares, triangles, circles), books, beads,	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45	
	4		Pythagorean relationship	By the end of the lesson the learner should be able to recognise and identify Pythagorean relationship	- Explanation -Working out -solving equation -Discussion Demonstration	Coloured Manila cards (squares, triangles, circles), books, beads,	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67	

							TG b7Pg 36-45	
	5			By the end of the lesson the learner should be able to recognise and identify Pythagorean relationship	- Explanation -Working out -solving equation -Discussion Demonstration	Rectangles, circles, triangles of different sizes and colours	P PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45	
	3-6		Model	By the end of the lesson the learner should be able to make a model of a cube	Identifying shapes of objects Matching objects according to shapes	Rectangles, circles, triangles of different sizes and colours	PM PB7 Pg46	
	7			By the end of the lesson the learner should be able to make a model of a cuboids	Identifying sizes of objects. group objects according to size Matching objects according to size	Objects like tins, books, bottles, pictures, of different size	TG 7Pg38	

1 1	1			By the end of the lesson the learner should be able to make a model of a cylinder	Identifying sizes of objects. group objects according to size Matching objects according to size	Objects like tins, books, bottles, pictures, of different size	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45	
	2		Pattern s	By the end of the lesson the learner should be able to make pattern using rectangles	- Identifying the texture of an object as rough and smooth Grouping things According to texture. object as rough or smooth - Matching objects according	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc.	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67 TG b7Pg 36-45Pg TG b7Pg	
	3			By the end of the lesson the learner should be able to make pattern using triangles	- Identifying the texture of an object as rough and smooth object as rough or smooth - Matching objects according	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, Leaves, etc.	PM PB7 Pg46-65 TG 7Pg38-44 NPM PB7 Pg42-67	

					texture • Comparing the texture of objects.		TG b7Pg 36-45	
	4	Algebra	Forming	By the end of the lesson the learner should be able to form a simple algebraic equation	Rectangles, circles, triangles of different sizes and colours Explanation -Working out -solving equation -simplifying		Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	
	5			By the end of the lesson the learner should be able to form a simple algebraic equation	Explanation -Working out -solving equation -simplifying		Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	
	6		Simplifying	By the end of the lesson the learner should be able to simplify an algebraic equation	Explanation -Working out -solving equation		Pg50-64 TG 7Pg NPM PB7 Pg42-60	

					-simplifying		TG b7Pg40-51	
	7			By the end of the lesson the learner should be able to simplify an algebraic equation	Explanation -Working out -solving equation -simplifying		Pg50-64 TG 7Pg49-50 NPM PB7 Pg42-60 TG b7Pg40-51	
1 2	1			By the end of this topic, the pupils should be able to revise and answer question of the work covered in the term	Explanation -Working out -solving equation -simplifying		Pg50-64 TG 7Pg40-50 NPM PB7 Pg42-60 TG b7Pg40-51	
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1 3	1	Revisions		By the end of this topic, the pupils should be able to revise and answer question of the work covered in the term	Explanation -Working out -revision		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
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1 4	1	Examinations		By the end of this topic, the pupils should be able to revise and answer question of the work	Explanation -Working out -answering		PM PB7 Pg TG 7Pg NPM PB7 Pg TG b7Pg	
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Mathematic schemes of work for standard
 __7__ TERM __3__ YEAR _____

WE EK	LE SS ON	TOPIC	SUB-TOPIC	OBJECTIVES	LEANING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENC ES	
1	1	Algebra	Form and Simplifying	By the end of the lesson the learner should be able to form and simplify an algebraic equation	-Grouping objects -Naming objects - Explanation -Working out -solving equation -simplifying	-Objects like tins, books, pencils, cups, pictures, etc	Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	
	2		Substitution	By the end of the lesson the learner should be able to work out the value of algebraic equation through substitution	-Grouping objects - arranging - Explanation	-Objects like tins, -books, pencils, -cups, pictures, etc	Pg50-64 TG 7Pg NPM PB7	

2					-Working out -solving equation -simplifying		Pg42-60 TG b7Pg40-51	
	3		Substitution	By the end of the lesson the learner should be able to work out the value of algebraic equation through substitution	- Explanation -Working out -solving equation -simplifying	Coloured Manila cards (squares, triangles, circles), books, beads,	Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	
	4		Solving	By the end of the lesson the learner should be able to form and solve algebraic expression with one unknown	Explanation -Working out -solving equation -simplifying	Coloured Manila cards (squares, triangles, circles), books, beads,	Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	
	5			By the end of the lesson the learner should be able to form and solve algebraic expression with one unknown	Explanation -Working out -solving equation -simplifying	Rectangles, circles, triangles of different sizes and colours	Pg50-64 TG 7Pg NPM PB7 Pg42-60 TG b7Pg40-51	

	6		Simplifying in equalities	By the end of the lesson the learner should be able to simplify inequality with one unknown	Explanation -Working out -solving equation -simplifying	Rectangles, circles, triangles of different sizes and colours	Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	7			By the end of the lesson the learner should be able to simplify inequality with one unknown	Explanation -Working out -solving equation -simplifying	Objects like tins, books, bottles, pictures, of different size	Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
3	1	Tables and graphs	Linear Scale	By the end of the lesson the learner should be able to determine the appropriate scale for the graphs	Identifying linear scale Explanation -Working out -representing data Drawing graph	Objects like tins, books, bottles, pictures, of different size	Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	2			By the end of the lesson the learner should be able to determine the appropriate scale for the	Identifying the texture of an object as rough and smooth Explanation	Objects that have smooth or rough texture like wood,	PM PB7 Pg TG 7Pg NPM PB7	

				graphs	-Working out -representing data Drawing graph	paper, glass, soil, mirror, leaves, etc.	Pg TG b7Pg	
	3		Interpreting tables	By the end of the lesson the learner should be able to read and interpret tables in real life situation	• Explanation -Working out -representing data Drawing graph	Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, Leaves, etc.	Pg150-164	
	4			By the end of the lesson the learner should be able to read and interpret tables in real life situation	Explanation -Working out -representing data Drawing graph		TG 7Pg	
	5		Bar graph	By the end of the lesson the learner should be able to represent data on a bar graph	Explanation -drawing Representing data		NPM PB7 Pg142-160	
	6			By the end of the lesson the learner should be able to interpreting data on a graph	-Discussion -interpreting data		TG b7Pg94-96	

					-drawing			
	7		Pie chart	By the end of the lesson the learner should be able to represent data on a pie chart	-Working out -representing data Drawing pie chart		Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
4	1			By the end of the lesson the learner should be able to interpret data on a pie chart	-Conversion -Working out -representing data Drawing pie chart		Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	2		Travel graph	By the end of the lesson the learner should be able to read and interpret data on a travel graph	Explanation -Working out -representing data Drawing graph		Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	3			By the end of the lesson the learner should be able to Present data on a travel graph	- Explanation -Working out		PM PB7 Pg TG 7Pg NPM PB7	

					-representing data Drawing graph		Pg TG b7Pg	
	4		Line graph	By the end of the lesson the learner should be able to read and interpret data on a line graph	- Explanation -Working out -representing data Drawing graph		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	5			By the end of the lesson the learner should be able to Present data on a line graph	-Explanation -demonstration -Discussion -Working out		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	6		Arithmetic mean	By the end of the lesson the learner should be able to work out problems involving arithmetic mean	Explanation -demonstration -Discussion -Working out		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	

	7		The mode	By the end of the lesson the learner should be able to work out problems involving arithmetic mode	-Explanation -demonstration -Discussion -Working out -Conversion		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
5	1			By the end of the lesson the learner should be able to work out problems involving arithmetic mean and mode in real life situation	Explanation -Discussion -Working out -Conversion -Observation		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	2	Scale drawing	Linear scale in ratio form	By the end of this topic, the pupils should be able to read and write linear scale in ratio form	-Explanation -Discussion -drawing -Working out -Conversion		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	3		Conversion	By the end of this topic, the pupils should be able to	Explanation -Discussion		PM PB7 Pg150-164	

				convert linier scale from statement to ratio form	-Demonstration -Working out -Conversion		TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	4			By the end of this topic, the pupils should be able to convert linier scale from ratio form to statement	-Explanation -Discussion -Demonstration -Working out -Conversion		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	5			By the end of this topic, the pupils should be able to convert linier scale from statement to ratio form and vice versa	Explanation -Discussion -Working out -Conversion		PM PB7 Pg150-164 TG 7Pg NPM PB7 Pg142-160 TG b7Pg94-96	
	6	Making scale drawing		By the end of this topic, the pupils should be able to make a scale drawing	-Explanation -Discussion -Working out		PM PB7 Pg162 TG 7Pg NPM PB7	

					-Conversion		Pg142 TG b7Pg	
	7			. By the end of this topic, the pupils should be able to work out problems involving scale drawing	Explanation -Discussion -Working out -Conversion -Observation		PM PB7 Pg143 TG 7Pg97 NPM PB7 Pg143 TG b7Pg95	
7	1		Mixed exercise	By the end of the lesson the learner should be able to do a revision exercise on the work covered	Explanation -Discussion -Working out -answering		PM PB7 Pg162 TG 7Pg NPM PB7 Pg162 TG b7Pg97	
	2	Ratio and proportion	Ratio as a fraction	By the end of this topic, the pupils should be able to recognize and identify ratio as a fraction	Explanation -Discussion -Working out -Conversion		PM PB7 Pg163 TG 7Pg98 NPM PB7 Pg161 TG b7Pg99	
	3	Fraction	Ratio sharing	By the end of this topic, the pupils should be able to	-Explanation		PM PB7 Pg163	

			interpret and use ratio on sharing	-Discussion -Working out -Conversion		TG 7Pg103 NPM PB7 Pg161 TG b7Pg99	
4			By the end of this topic, the pupils should be able to interpret and use ratio on sharing			PM PB7 Pg164 TG 7Pg NPM PB7 Pg162 TG b7Pg100	
5			By the end of this topic, the pupils should be able to work out problems involving ratio using unitary method	-Explanation -Discussion -Working out -Conversion		PM PB7 Pg TG 7Pg NPM PB7 Pg163 TG b7Pg102	
6		Ratio increase	By the end of this topic, the pupils should be able to interpret and use ratio in increase			PM PB7 Pg163 TG 7Pg NPM PB7 Pg162	

							TG b7Pg	
	7			By the end of this topic, the pupils should be able to interpret and use ratio in increase	-Explanation -Discussion -Working out -Conversion		PM PB7 Pg164 TG 7Pg NPM PB7 161Pg102 TG b7Pg	
8	1		Ratio decrease	By the end of this topic, the pupils should be able to interpret and use ratio in decrease			PM PB7 Pg163 TG 7Pg NPM PB7 Pg163 TG b7Pg103	
	2			By the end of this topic, the pupils should be able to interpret and use ratio in decrease	-Explanation -Discussion -Working out -Conversion		PM PB7 Pg164 TG 7Pg NPM PB7 Pg162 TG b7Pg	
	3			By the end of the lesson the learner should be able to do a revision exercise on the			PM PB7 Pg TG 7Pg	

				work covered.			NPM PB7 Pg163 TG b7Pg104	
	4		Direct proportion	By the end of the lesson the learner should be able to recognize and identify simple direct proportion	-Explanation -Discussion -Working out -Conversion		PM PB7 Pg TG 7Pg NPM PB7 Pg164 TG b7Pg103	
	5			By the end of the lesson the learner should be able to work out problems involving simple direct proportion			PM PB7 Pg TG 7Pg NPM PB7 Pg165 TG b7Pg	
	6		Indirect proportion	By the end of the lesson the learner should be able to recognize and identify indirect proportion	-Explanation -Discussion -Working out -Conversion		PM PB7 168Pg162 TG 7Pg NPM PB7 Pg106 TG b7Pg105	

	7			By the end of the lesson the learner should be able to work out problems involving simple indirect proportion	-Explanation -Discussion -Working out -Conversion		PM PB7 Pg160 TG 7Pg NPM PB7 160Pg169 TG b7Pg106	
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WEEK	LESSON	TOPIC	SUB-TOPIC	OBJECTIVES	LEARNING/ TEACHING ACTIVITIES	LEARNING/ TEACHING RESOURCES	REFERENCES	
9 1 0	1		Revision	By the end of the lesson the learner should be able to do a revision exercise on the work covered.			PM PB7 Pg TG 7Pg107 NPM PB7 Pg169 TG b7Pg106	
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	7		Revision	By the end of the lesson the learner should be able to do a revision exercise on the work covered.			PM PB7 Pg180 TG 7Pg112 NPM PB7 Pg22-170 TG b7Pg2-107	
11	1		Revision	By the end of the lesson the learner should be able to do a revision exercise on the work covered.			PM PB7 Pg TG 7Pg180 NPM PB7 Pg171 TG b7Pg107	
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1 2	1		Examination	By the end of the lesson the learner should be able to do a revision exercise on the work covered.				
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