

## DOYEN PUBLISHERS

## HIGH SCHOOL SCHEMES OF WORK

## **MATHEMATICS FORM 3**

(Term 1, 2 & 3)

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		MAT	<b>THEMATICS</b>	FORM 3 SCHEME	ES OF WO	RK – TEF	RM 1	
WK	LSN	TOPIC	SUB-TOPIC	OBJECTIVES	L/ACTIVITIES	L/T AIDS	REFERENCE	REMARKS
1		REPORTING AND	REVISION OF LAST	TERM'S EXAMS		•	•	
2	1&2	REVISION						
	3	Quadratic Expressions and Equations	Factorize quadratic expressions	By the end of the less the learner should be able to factorise quadratic expressions	Learners factorize quadratic expressions	Previous work covered	Explore Maths Bk3 Pg.66	
	4	Quadratic Expressions and Equations	Perfect squares	By the end of the lesson the learner should be able to identify perfect squares	Learners identify perfect squares	Chalkboard illustrations	Explore Maths Bk3 Pg.67	
	5	Quadratic Expressions and Equations	Completing squares Completing the constant	By the end of the lesson the learner should be able to complete the constant part	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.68	
	6	Quadratic Expressions and Equations	Completing the coefficient of x	By the end of the lesson the learner should be able to Complete the coefficient of x in a quadratic expression	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.69	
	7	Quadratic Expressions and Equations	Completing the coefficient of x <sup>2</sup>	By the end of the lesson the learner should be able to complete the coefficient of $x^2$ in a quadratic expression	Learners Complete the coefficient of x <sup>2</sup>	Chalkboard illustrations	Explore Maths Bk3 Pg.70	
3	1	Quadratic Expressions And Equations	Solution of quadratic by Completing the square when coefficient of $x^2$ is 1	By the end of the lesson the learner should be able to solve quadratic equations whose coefficient of x <sup>2</sup> is 1 by completing of the square method	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.71	
	2	Quadratic Expressions And Equations	Solving quadratic equation whose coefficient of x² is greater than 1 by completing the square	By the end of the lesson the learner should be able to solve quadratic equations whose coefficient of x <sup>2</sup> is greater than by completing the square	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.72	
	3	Quadratic Expressions And Equations	Quadratic formula	By the end of the lesson the learner should be able to derive the quadratic formula	Teacher leads pupils to derive the quadratic formula	Chalkboard illustrations	Explore Maths Bk3 Pg.77	

	4	Quadratic Expressions And	Application of the quadratic formula	By the end of the lesson the learner should be able to Apply	Learners solve quadratic	Chalkboard illustrations	Explore Maths Bk3
		Equations		the quadratic formula and use it to solve quadratic equations	equations using the quadratic formula		Pg.78
	5	Quadratic Expressions And Equations	Forming quadratic equations from roots	By the end of the lesson the learner should be able to form quadratic equations from roots	Learners form quadratic equations from roots	Chalkboard illustrations	Explore Maths Bk3 Pg.79
	6	Quadratic Expressions And Equations	Forming quadratic equations from given situation	By the end of the lesson the learner should be able to form quadratic equations from given situations	Learners form quadratic equations from given situation	Chalkboard illustrations	Explore Maths Bk3 Pg.79
	7	Quadratic Expressions And Equations	Solving the formed equation using the formula method	By the end of the lesson the learner should be able to solve the formed equations using the formula method	Solving quadratic equations using the formula method	Chalkboard illustrations	Explore Maths Bk3 Pg.80
4	1	Quadratic Expressions And Equations	Table of values for a quadratic relation	By the end of the lesson the learner should be able to make table of values from a quadratic relation	Learners fill in the tables	Pencils rulers	Explore Maths Bk3 Pg.81
	2	Quadratic Expressions And Equations	Quadratic graphs	By the end of the lesson the learner should be able to draw the graph of a quadratic relation	Learners draw graphs	Graph books square books	Explore Maths Bk3 Pg.82
	3	Quadratic Expressions And Equations	Solving quadratic equations using graphs	By the end of the lesson the learner should be able to solve quadratic equations using graphs	Learners draw graphs and lines	- Graph books - square books	Explore Maths Bk3 Pg.83
	4	Quadratic Expressions And Equations	Solving simultaneous equations	By the end of the lesson the learner should be able to solve simultaneous equations analytically and graphically. (one linear one quadratic)	Learners draw quadratic curve and some lines on the curve	- Graph books - square books rulers	Explore Maths Bk3 Pg.83
	5	Quadratic Expressions And Equations	Nature of roots	By the end of the lesson the learner should be able to state the three types of roots	Learners state the roots	Chalkboard illustrations graph of quadratic curves	Explore Maths Bk3 Pg.84

6	Quadratic Expressions And Equations	Use discriminant to state the nature of roots	By the end of the lesson the learner should be able to use the discriminant to state the nature of	Learners state the volume of root using	Chalkboard illustrations	Explore Maths Bk3 Pg.76
	Equations	10003	the root	discriminant		1 g.70
7	Quadratic Expressions And Equations	Application to real life situation	By the end of the lesson the learner should be able to apply the knowledge of quadratic equations to real life situation	Learners solve problems	Chalkboard illustrations	Explore Maths Bk3 Pg.77
1	Approximation And Errors	Introduction to calculators	By the end of the lesson the learner should be able to know all the keys of the calculator	Learners use calculators to do simple computation	Calculators	Explore Maths Bk3 Pg.7
2	Approximation And Errors	Use of calculators in various computations	By the end of the lesson the learner should be able to use calculators in various computations	Learners compute using calculators	Calculators	Explore Maths Bk3 Pg.2-5
3	Approximation And Errors	Estimations and approximations	By the end of the lesson the learner should be able to make reasonable approximations and estimations of quantities computations and measurements	Learners should be able to approximate and estimate	Calculators	Explore Maths Bk3 Pg.14
4	Approximation And Errors	Significant figures	By the end of the lesson the learner should be able to express values to a given number of significant figures	Learners write numbers to a certain number of significant figures	Chalkboard illustrations	Explore Maths Bk3 Pg.14
5	Approximation And Errors	Definition of absolute, relative and percentage errors	By the end of the lesson the learner should be able to Define absolute, errors, relative error and percentage error	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.15
6	Approximation And Errors	Round off	By the end of the lesson the learner should be able to round off errors	Learners round off numbers	Chalkboard illustrations	Explore Maths Bk3 Pg.16
7	Approximation And Errors	Truncate errors	By the end of the lesson the learner should be able to truncate errors and calculate absolute, relative and percentage error	Learners truncate numbers	Chalkboard illustrations	Explore Maths Bk3 Pg.17

6	1	Approximation And Errors	Operation of errors. Addition	By the end of the lesson the learner should be able to state the error involved when adding two measurements	Learners add numbers	Chalkboard illustrations	Explore Maths Bk3 Pg.18
	2	Approximation And Errors	Error involved in subtraction	By the end of the lesson the learner should be able to © Education Plus Agencies state the error involved in subtraction	Learners calculate error involved in subtraction	Chalkboard illustrations	Explore Maths Bk3 Pg.19
	3	Approximation And Errors	Error involved in multiplication	By the end of the lesson the learner should be able to state the error involved in multiplication	Learners calculate error involved in multiplication	Chalkboard illustrations	Explore Maths Bk3 Pg.20
	4	Approximation And Errors	Error involved in division	By the end of the lesson the learner should be able to state the error involved in division	Learners calculate error involved in division	Chalkboard illustrations	Explore Maths Bk3 Pg.21
	5	Approximation And Errors	Maximum and minimum errors	By the end of the lesson the learner should be able to find maximum and minimum errors from operations	Learners find minimum and maximum errors	Chalkboard illustrations	Explore Maths Bk3 Pg.22
	6	Approximation And Errors	Error in calculating area of a triangle $A = \frac{1}{2}bh$ $A = \frac{1}{2}absin c$ $A = \sqrt{s(s-a)(s-b)(s-c)}$	By the end of the lesson the learner should be able to calculate the error involved in calculating area of a triangle	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.23
	7	Approximation And Errors	Problem solving	By the end of the lesson the learner should be able to solve problems on approximation and errors	Learners solve problems	Past paper questions	Explore Maths Bk3 Pg.23
7	1	Trigonometry	Review of form 2 work	By the end of the lesson the learner should be able to state the trigonometric ratios	Learners answer questions asked	Form two work	Explore Maths Bk3 Pg.50
	2	Trigonometry	Unit circle	By the end of the lesson the learner should be able to define and draw the unit circle	Teacher/pupil discussion	Chart illustrating the unit circle Graph books	Explore Maths Bk3 Pg.51

	3	Trigonometry	Sin, Cos, Tan of angles between 90°-180°	By the end of the lesson the learner should be able to find the sin, Cos, tan of angles between 90°- 180° using the unit circle	Teacher/pupil discussion	Graph books Calculators	Explore Maths Bk3 Pg.52	
	4	Trigonometry	Sin, Cos, Tan of angles between 180°- 270°	By the end of the lesson the learner should be able to find the sin, Cos, tan of angles between 180°- 270° using the unit circle	Learners use unit circle to find Sin, Cos, Tan of angles	Graph books Calculators	Explore Maths Bk3 Pg.53	
	5	Trigonometry	Sin, Cos, Tan of angles between 270°- 360° using unit circle	By the end of the lesson the learner should be able to find the sin, Cos and tan of angles using the unit circle	Teacher/pupil discussion	Graph books	Explore Maths Bk3 Pg.53	
	6	Trigonometry	Sin, Cos, Tan of negative	By the end of the lesson the learner should be able to find the sin, cos and tan of negative angles	Teacher/pupil discussion	Calculators Chalkboard illustrations	Explore Maths Bk3 Pg.54	
	7	Trigonometry	Sin, Cos, Tan of angles greater than $360^{\circ}$	By the end of the lesson the learner should be able to find the sin, Cos, and tan of angles greater than 360°	Teacher/pupil discussion	Calculators Chalkboard illustrations	Explore Maths Bk3 Pg.55	
8	1	Trigonometry	Sin, Cos, Tan of angles between 0 <sup>0</sup> -360 <sup>0</sup> using mathematical tables	By the end of the lesson the learner should be able to find the sin, Cos, and tan of angles between 0° and 360°	Learners must know  S A T C  and use it to find Sin, Cos, Tan of angles	Mathematical tables Chalkboard illustrations	Explore Maths Bk3 Pg.56	
	2	Trigonometry	Radian measure	By the end of the lesson the learner should be able to define radian measure and change degrees to radians	Learners change degrees to radians	Chalkboard illustrations Mathematical tables	Explore Maths Bk3 Pg.57	
	3	Trigonometry	Radian measure	By the end of the lesson the learner should be able to change radians to degrees	Learners convert	Chalkboard illustrations	Explore Maths Bk3 Pg.59	

	4	Trigonometry	Trigonometric graphs y = sinx	By the end of the lesson the learner should be able to draw the graph of y = sinx using degrees and radians	Learners draw graphs	Calculators Graph books Maths tables	Explore Maths Bk3 Pg.60	
	5	Trigonometry	Trigonometric graphs y = cosx	By the end of the lesson the learner should be able to draw the graph of y = cosx using degrees and radians	Learners draw graphs	Calculators Graph books Maths tables	Explore Maths Bk3 Pg.61	
	6	Trigonometry	Trigonometric graphs y = tanx	By the end of the lesson the learner should be able to draw the graph of $y = tanx$	Learners draw the graphs	- Calculators - Graph books Maths tables	Explore Maths Bk3 Pg.62	
	7	Trigonometry	Sine rule	By the end of the lesson the learner should be able to derive the sine rule	Teacher/pupil discussion	- Calculators - Chalkboard illustrations	Explore Maths Bk3 Pg.63	
9	1	Trigonometry	Application of sine rule	By the end of the lesson the learner should be able to apply the sine rule	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.64	
	2	Trigonometry	Cosine rule	By the end of the lesson the learner should be able to derive the cosine rule	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.64	
	3	Trigonometry	Application of cosine rule	By the end of the lesson the learner should be able to apply the cosine rule	Teacher/pupil discussion	- Calculators - Chalkboard illustrations	Explore Maths Bk3 Pg.65	
	4	Trigonometry	Application of both cosine rule and sine rule	By the end of the lesson the learner should be able to use the cosine rule to solve triangles	Teacher/pupil discussion	- Calculators - Chalkboard illustrations	Explore Maths Bk3 Pg.64	
	5	Trigonometry	Problem solving	By the end of the lesson the learner should be able to solve problems on trigonometry	Teacher/pupil discussion	Past paper questions	Explore Maths Bk3 Pg.65	
	6	Surds	Rational and irrational numbers	By the end of the lesson the learner should be able to define a rational and irrational number and give examples of each	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.41	

	7	Surds	Simplify expressions	By the end of the lesson the	Learners simplify	Chalkboard	Explore
			with surd (addition	learner should be able to simplify		illustrations	Maths Bk3
			of surds)	expressions with surd (addition)			Pg.42
10	1	Surds	Subtraction of surds	By the end of the lesson the	Learners subtract	Chalkboard	Explore
				learner should be able to subtract	surds	illustrations	Maths Bk3
				surds			Pg.43
	2	Surds	Multiplication of	By the end of the lesson the	Learners	Chalkboard	Explore
			surds	learner should be able to multiply	multiply surds	illustrations	Maths Bk3
				surds			Pg.44
	3	Surds	Rationalize	By the end of the lesson the	Teacher/pupil	Chalkboard	Explore
			denominator	learner should be able to	discussion	illustrations	Maths Bk3
				rationalise the denominator			Pg.45
	4	Surds	Application to	By the end of the lesson the	Learners apply	Chalkboard	Explore
			trigonometry	learner should be able to apply	surds to	illustrations	Maths Bk3
				surds to trigonometry	trigonometry		Pg.46
	5	Surds	Problem solving	By the end of the lesson the	Learners solve	Past paper	Explore
				learner should be able to solve	problems	questions	Maths Bk3
				problems on trigonometry			Pg.47-49
	6	Further Logarithms	Logarithmic	By the end of the lesson the	Learners move	Chalkboard	Explore
			notation	learner should be able to derive	from indices to	illustrations	Maths Bk3
				logarithmic relation from index	logs		Pg.86
				form			
	7	Further Logarithms	Laws of logarithms	By the end of the lesson the	Teacher/pupil	Chalkboard	Explore
			multiplication	learner should be able to state and	discussion	illustrations	Maths Bk3
				apply the law of multiplication			Pg.87
11	1	Further Logarithms	Law of division	By the end of the lesson the	Learners state	Chalkboard	Explore
				learner should be able to state and	law.	illustrations	Maths Bk3
				apply the law of division	Teacher/pupil		Pg.88
					discussion		
	2	Further Logarithms	Law of division	By the end of the lesson the	Learners state	Chalkboard	Explore
			powers	learner should be able to state and	law.	illustrations	Maths Bk3
				apply the law of powers	Teacher/pupil		Pg.89
					discussion		
	3	Further Logarithms	Simplifying	By the end of the lesson the	Teacher/pupil	Chalkboard	Explore
			logarithmic	learner should be able to use	discussion	illustrations	Maths Bk3
			expressions	logarithmic laws to simplify			Pg.90
				logarithmic expressions			

	4	Further Logarithms	Solving logarithmic equations	By the end of the lesson the learner should be able to use logarithmic laws to solve logarithmic equations	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.91
	5	Further Logarithms	Application of logarithms	By the end of the lesson the learner should be able to apply laws of logarithms for further computation equations	Learners apply laws of trigonometry.	Chalkboard illustrations	Explore Maths Bk3 Pg.92
	6	Further Logarithms	Problem solving	By the end of the lesson the learner should be able to solve problems on further logarithms.	Learners solve problems	Chalkboard illustrations	Explore Maths Bk3 Pg.92
	7						
12	1	Commercial Arithmetic	Principal, rate and time	By the end of the lesson the learner should be able to define principal, rate and time in relation to interest	Teacher/pupil discussion	Previous work covered	Explore Maths Bk3 Pg.213
	2	Commercial Arythmetic	Simple interest	By the end of the lesson the learner should be able to calculate simple interest using simple interest formula	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.214
	3	Commercial Arithmetic	Compound interest	By the end of the lesson the learner should be able to calculate compound interest using step by step method	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.215
	4	Commercial Arithmetic	Deriving the compound interest formula	By the end of the lesson the learner should be able to derive the compound interest formula	Learners derive the formula $A = p(1-r)^{n}$ 100	Chalkboard illustrations	Explore Maths Bk3 Pg.215
	5	Commercial Arithmetic	Calculating amount in compound interest	By the end of the lesson the learner should be able to calculate the amount in compound interest	Learners calculate the amount of compound interest	- Calculators - Chalkboard illustrations	Explore Maths Bk3 Pg.216
	6	Commercial Arythmetic	Calculating the rate in compound interest	By the end of the lesson the learner should be able to calculate the rate in compound interest	Learners calculate the rate	- Calculators - Chalkboard illustrations	Explore Maths Bk3 Pg.217

	7	Commercial	Calculating the time	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic	in compound	learner should be able to calculate	calculate the time	- Chalkboard	Maths Bk3	
			interest	the time in compound interest		illustrations	Pg.218	
13	1	Commercial	Calculating the	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic	principal in	learner should be able to calculate	calculate the	- Chalkboard	Maths Bk3	
			compound interest	the principal in compound	principal	illustrations	Pg.219	
				interest				
	2	Commercial	Calculating the	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic	interest in	learner should be able to calculate	calculate the	- Chalkboard	Maths Bk3	
			compound interest	the interest in compound interest	interest	illustrations	Pg.220	
	3	Commercial	Appreciation	By the end of the lesson the	Learners	Chalkboard	Explore	
		Arythmetic		learner should be able to define	calculate	illustrations	Maths Bk3	
				appreciation and calculate	problems		Pg.220	
				problems involving appreciation				
	4	Commercial	Depreciation	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic	$A = p(1-r)^n$	learner should be able to define	calculate	- Chalkboard	Maths Bk3	
			100	depreciation and calculate	problems	illustrations	Pg.221	
				problems involving depreciation				
	5	Commercial	Hire purchase	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic		learner should be able to calculate	calculate Hire	- Chalkboard	Maths Bk3	
				hire purchase	purchase	illustrations	Pg.222	
	6	Commercial	Income tax	By the end of the lesson the	Learners	- Calculators	Explore	
		Arythmetic		learner should be able to calculate	calculate income	- Chalkboard	Maths Bk3	
				income tax given the income tax	tax	illustrations	Pg.223	
				bands		- Income tax		
						bands		
	7	Commercial	Income tax	By the end of the lesson the	Learners	- Chalkboard	Explore	
		Arythmetic		learner should be able to calculate	calculate the	illustrations	Maths Bk3	
				basic salary given income tax	basic salary	- Income tax	Pg.225-227	
				bands, income tax relief.		bands		
14		END OF TERM E						
15		PREPARATION (	OF REPORTS AND CLO	SING				

		MA	THEMATIC	CS FORM 3 SCHE	MES OF WO	RK - TERI	M 2	
WK	LSN	TOPIC	SUB-TOPIC	OBJECTIVES	L/ACTIVITIES	L/T AIDS	REFERENCE	REMARKS
1	1-6	REPORTING A	ND REVISION OF LA	AST TERM'S EXAMS			•	
2	1&2	REVISION OF	EXAMS					
	3	Circles, Chords	Length of a arc	By the end of the lesson the	Learners draw circle	Previous work	Explore	
		And Tangents		learner should be able to	calculate length of an	covered	Maths Bk3	
				calculate the length of a arc	arc		Pg107	
	4	Circles, Chords	Chord	By the end of the lesson the	Learners draw circle	- Chalkboard	Explore	
		And Tangents	A line from the	learner should be able to prove	and prove the property	illustrations	Maths Bk3	
			centre of a circle is a	the property of a c and a		- Pair of compass	Pg.102	
			perpendicular	perpendicular line				
			bisector of a chord	perpendicular to a chord				
	5	Circles, Chords	Equal chords	By the end of the lesson the	Learners use the	- Pair of compass,	Explore	
		And Tangents		learner should be able to state	property to calculate	- ruler	Maths Bk3	
				the property of equal chords and	measurements	- Chalkboard	Pg.103	
				use it to calculate measurements		illustrations		
	6	Circles, Chords	Parallel chords on	By the end of the lesson the	Learners	- Pair of compass,	Explore	
		And Tangents	the same side of the	learner should be able to state	calculate	- ruler	Maths Bk3	
			centre of a circle	the property of Parallel chords	measurements	- Chalkboard	Pg.103	
				and use it to calculate		illustrations		
				measurements				
	7	Circles, Chords	Parallel chords on an	By the end of the lesson the	Learners	Chalkboard	Explore	
		And Tangents	opposite side of the	learner should be able to	calculate	illustrations	Maths Bk3	
			centre of a circle	calculate the radius of a circle			Pg.	
				given two parallel chords on				
				opposite sides of the circle				
3	1	Circles, Chords	Intersecting chords	By the end of the lesson the	Learners use similarity	Chalkboard	Explore	
		And Tangents	(intersect inside a	learner should be able to	to derive a formula to	illustrations	Maths Bk3	
			circle)	calculate the length of chords	calculate the length of		Pg.104	
				that intersect inside a circle	a chord			
	2	Circles, Chords	Intersecting chords	By the end of the lesson the	Learners use similarity	Chalkboard	Explore	
		And Tangents	(intersect outside a	learner should be able to	to derive a formula	illustrations	Maths Bk3	
			circle)	calculate the length of chords			Pg104	
				that intersect outside a circle				
	3	Circles, Chords	Tangent to a circle	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore	
		And Tangents		learner should be able to	discussion	- ruler	Maths Bk3	
				construct a tangent to a circle		- Chalkboard	Pg105	
						illustrations		

	4	Circles, Chords	Constructing a	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore
		And Tangents	tangent from an	learner should be able to	discussion	- Ruler	Maths Bk3
			external point	construct a tangent from an		- Chalkboard	Pg138-139
				external point		illustrations	
	5	Circles, Chords	Direct common	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore
		And Tangents	Tangent	learner should be able t	discussion	- Ruler	Maths Bk3
				construct a direct common		- Chalkboard	Pg140-143
				tangent to two circles		illustrations	
	6	Circles, Chords	Transverse Tangents	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore
		And Tangents		learner should be able to	discussion	- ruler	Maths Bk3
				construct a transverse common		- set square	Pg. 151
				tangent to two circles			
	7	Circles, Chords	Angles in alternate	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore
		And Tangents	segment	learner should be able to relate	discussion	- ruler	Maths Bk3
				angles in alternate segment			Pg153
4	1	Circles, Chords	Circumscribed circle	By the end of the lesson the	Teacher/pupil	- Pair of compass,	Explore
		And Tangents		learner should be able to	discussion	- ruler	Maths Bk3
				construct a circumscribed circle			Pg. 147
	2	Circles, Chords	Inscribed circle	By the end of the lesson the	Teacher/pupil	- Ruler	Explore
		And Tangents		learner should be able to	discussion	- Pair of compass,	Maths Bk3
				construct an inscribed circle			Pg206
	3	Circles, Chords	Escribed circle	By the end of the lesson the	Discussion	- Ruler	Explore
		And Tangents		learner should be able to		- pair of compass	Maths Bk3
				construct an escribed circle			Pg208
	4	Circles, Chords	Contact circle	By the end of the lesson the	Teacher/pupil	- Ruler	Explore
		And Tangents	Internal contact	learner should be able to solve	discussion	- Pair of compass	Maths Bk3
				problems on contact circles			Pg210
				(internal contact)			
	5	Circles, Chords	external contact	By the end of the lesson the	Learners draw two	- Pair of compass	Explore
		And Tangents		learner should be able to solve	circles with external	- Chalkboard	Maths Bk3
				problems on contact circles	contact	illustrations	Pg146
				which are external contact			
	6	Circles, Chords	Centroid	By the end of the lesson the	Learners draw a	- Pair of compass	Explore
		And Tangents		learner should be able to locate	triangle and locate the	- Chalkboard	Maths Bk3
				centroid of a circle	centroid	illustrations	Pg211
	7	Circles, Chords	Orthocenter	By the end of the lesson the	Learners draw a	- Pair of compass	Explore
		And Tangents		learner should be able to locate	triangle and locate the	- Chalkboard	Maths Bk3
				orthocenter of a circle	orthocentre	illustrations	Pg211

5	1	Circles, Chords	Application of	By the end of the lesson the	Teacher/pupil	- Pulleys	Explore
		And Tangents	tangents and chords	learner should be able to apply	discussion	- A bicycle	Maths Bk3
			to real life situation	the knowledge of tangents and		- calculator	Pg153-154
				chords to real life situation			
	2	Circles, Chords	Problem solving	By the end of the lesson the	Question answer	Past paper	Explore
		And Tangents	_	learner should be able to solve	method	questions	Maths Bk3
				problems on tangents and			Pg212
				chords			
	3	Circles, Chords	Problem solving	By the end of the lesson the	Question answer	Past paper	Past papers
		And Tangents		learner should be able to solve	method	questions	
				problems on real life situations			
	4	Matrices	Definition order of a	By the end of the lesson the	Teacher defines,	Chalkboard	Explore
			matrix	learner should be able to define	learners state the order	illustrations	Maths Bk3
				a matrix			Pg93
				State the order of a matrix			
	5	Matrices	Square matrix	By the end of the lesson the	Learners give	Chalkboard	Explore
				learner should be able to define	examples of square	illustrations	Maths Bk3
				a square matrix and use it to	matrices		Pg94
				state its order			
	6	Matrices	Addition of matrices	By the end of the lesson the	Learners add matrices	- Chalkboard	Explore
				learner should be able to add		illustrations	Maths Bk3
				two matrices		- calculators	Pg94
	7	Matrices	subtraction of	By the end of the lesson the	Learners subtract	- Chalkboard	Explore
			matrices	learner should be able to	matrices	illustrations	Maths Bk3
				subtract two matrices		- calculators	Pg95
6	1	Matrices	multiplication by a	By the end of the lesson the	Learners multiply a	- Chalkboard	Explore
			scalar	learner should be able to	matrix by a scalar	illustrations	Maths Bk3
				© Education Plus Agencies		- calculators	Pg96
				multiply a matrix and a scalar			
	2	Matrices	multiplication of two	By the end of the lesson the	Learners multiply two	- Chalkboard	Explore
			matrices	learner should be able to	matrices	illustrations	Maths Bk3
				multiply two matrices		- calculators	Pg97-99
	3	Matrices	Identify matrix	By the end of the lesson the	Learners identify an	- Chalkboard	Explore
				learner should be able to	identity matrix	illustrations	Maths Bk3
				identify an identity matrix			Pg180-182
	4	Matrices	Determinant of a	By the end of the lesson the	Learners find the	- Chalkboard	Explore
			matrix	learner should be able to find	determinant of a	illustrations	Maths Bk3
					matrix	- calculators	Pg182

				the determinant of a 2 by 2 matrix				
	5	Matrices	Inverse of 2 by 2 matrix	By the end of the lesson the learner should be able to find the inverse of a 2 by 2 matrix	Teacher leads pupil to find the inverse	Chart illustrating the steps of finding the inverse	Explore Maths Bk3 Pg182-183	
	6	Matrices	Singular matrix	By the end of the lesson the learner should be able to identify a singular matrix and find the elements of a singular matrix	Learners identify singular matrix	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg184	
	7	Matrices	Solving simultaneous equations	By the end of the lesson the learner should be able to solve simultaneous equations by the matrix method	Teacher leads pupil to solve simultaneous equations	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg185	
7	1	Matrices	Solving simultaneous equations which have fractions using matrices	By the end of the lesson the learner should be able to solve simultaneous equations which involve fractions by the matrix method	Learners solve equations	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg186-187	
	2	Matrices	Problem solving	By the end of the lesson the learner should be able to solve problems involving matrices	Learners solve problems	Past paper questions	Explore Maths Bk3 Pg188	
	3	Formulae And Variations	Change of subject	By the end of the lesson the learner should be able to rewrite a given formula by changing the subject	Learners change subjects of simple formula	Chart illustrating change of subject	Explore Maths Bk3 Pg37	
	4	Formulae And Variations	Change of subject involving roots and subjects	By the end of the lesson the learner should be able to rewrite a given formula by changing the subject especially formulas with roots and powers	Teacher leads pupil to make subject of formula	Chalkboard illustrations	Explore Maths Bk3 Pg38-39	
	5	Formulae And Variations	Direct variation	By the end of the lesson the learner should be able to define direct variation Identify the constant of proportionality	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg112	

	6	Formulae And Variations	Graphs of direct variation	By the end of the lesson the learner should be able to draw graphs of direct variation	Learners draw graphs	Graph papers	Explore Maths Bk3 Pg113-118
	7	Formulae And Variations	Inverse variation	By the end of the lesson the learner should be able to define inverse variation  Determine the constant of proportionality	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg119
8	1	Formulae And Variations	Graphs of inverse variation	By the end of the lesson the learner should be able to draw the graph of inverse variation	Learners draw graphs	- Graph papers - Chalkboard illustrations	Explore Maths Bk3 Pg120
	2	Formulae And Variations	Joint variation	By the end of the lesson the learner should be able to define joint variation Determine the constant of proportionality	Learners solve given problems	Chalkboard illustrations	Explore Maths Bk3 Pg121
	3	Formulae And Variations	Percentage change in variable	By the end of the lesson the learner should be able to Determine the percentage change in a variable given the increase and decrease of the other variable	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg122
	4	Formulae And Variations	Partial variation	By the end of the lesson the learner should be able to define partial variation  Determine the constant of proportionality in partial variation	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg123
	5	Formulae And Variations	Partial variation problem solving	By the end of the lesson the learner should be able to solve problems on partial variation	Learners form equations from given information	Chalkboard illustrations	Explore Maths Bk3 Pg123
	6	Formulae And Variations	Formation and solving equations	By the end of the lesson the learner should be able to form and solve problems on partial variation	Learners solve problems	Chalkboard illustrations	Explore Maths Bk3 Pg124
	7	Formulae And Variations	Application to real life situation	By the end of the lesson the learner should be able to use	Learners answer questions	Chalkboard illustrations	Explore Maths Bk3 Pg125

				variation to solve everyday life problems			
9	1	Formulae And Variations	Problem solving	By the end of the lesson the learner should be able to solve problems on formula and variation	Learners solve problems	Chalkboard illustrations	Explore Maths Bk3 Pg125 Past papers
	2	Sequences And Series	Number patens	By the end of the lesson the learner should be able to Identify simple number patens	Learners identify number patens	Chart illustrating different number patens	Explore Maths Bk3 Pg189
	3	Sequences And Series	Number patens	By the end of the lesson the learner should be able to Identify the patens for a given set of numbers and deduce the general rule	Learners deduce the general rule	Chalkboard illustrations	Explore Maths Bk3 Pg190-191
	4	Sequences And Series	Sequence	By the end of the lesson the learner should be able to define a sequence  Determine a term in a sequence	Learners define sequence	Chalkboard illustrations	Explore Maths Bk3 Pg192
	5	Sequences And Series	Arithmetic Sequence	By the end of the lesson the learner should be able to define the arithmetic Sequence and state a term in arithmetic Sequence	Learners should be able to use the formula a+(n-1)d to find a term	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg194
	6	Sequences And Series	Arithmetic Sequence	By the end of the lesson the learner should be able to apply the formula a+(n-1)d to find the first term and the common difference	Learners calculate the first term and the common difference	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg195
	7	Sequences And Series	Geometric Sequence	By the end of the lesson the learner should be able to define a geometric sequence and state a term in the geometric sequence	Learners use the formula ar <sup>n-1</sup> to find a term	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg195
10	1	Sequences And Series	Geometric Sequence	By the end of the lesson the learner should be able to apply the formula ar <sup>n-1</sup> to find the first term and the common ratio	Learners calculate the first term	- Chalkboard illustrations - calculators	Explore Maths Bk3 Pg196

	2	Sequences And	Arithmetic series	By the end of the lesson the	Discussions	Chalkboard	Explore
		Series		learner should be able to define		illustrations	Maths Bk3
	3	Sequences And	Deriving the	an arithmetic series  By the end of the lesson the	Learners derive the	Chalkboard	Pg197 Explore
	3	Series And	arithmetic series	learner should be able to derive	formula	illustrations	Maths Bk3
		Series	formula	the formula $s_n=n$ (2a+(n-1)d)	Tormura	illustrations	Pg198
	4	Sequences And	Application of AP	By the end of the lesson the	Learners solve	- Chalkboard	Explore
	4	Series Series	formula	learner should be able to apply	problems	illustrations	Maths Bk3
		Series	Tormura	the A-P formula to solve	problems	- calculators	Pg199-200
				problems		- carculators	1 g199-200
	5	Sequences And	Geometric series	By the end of the lesson the	Discussions	illustrations	Explore
		Series		learner should be able to define			Maths Bk3
				a geometric series			Pg201
	6	Sequences And	Deriving the	By the end of the lesson the	Learners derive the	- Chalkboard	Explore
		Series	Geometric series	learner should be able to derive	formula	illustrations	Maths Bk3
				the formula		- calculators	Pg202
				$s^n = \underline{a(r^n-1)}$			
				r-1 or			
				$s^n = \underline{a(1-r^n)}$			
				1-r			
	7	Sequences And	Application of the	By the end of the lesson the	Learners solve	Chalkboard	Explore
		Series	AP formula	learner should be able to apply	problems	illustrations	Maths Bk3
				the GP formula to solve			Pg203-204
				problems			
11	1	Sequences And	Application to real	By the end of the lesson the	Learners solve	Chalkboard	Explore
		Series	life situation	learner should be able to apply	problems	illustrations	Maths Bk3
				the A.P and G.P formula to			Pg205
				solve problems in real life			
			D 11	situations		-	
	2	Sequences And	Problem solving	By the end of the lesson the	Learners solve	Past paper	Past papers
		Series		learner should be able to solve	problems	questions	
	2	XX (2)	G II	problems on sequence and series	, , , ,	C1	P 1
	3	Vector (2)	Coordinates in two	By the end of the lesson the	Learners draw a	Chart illustrating	Explore
			dimensions	learner should be able to locate	Cartesian plane and	two dimension	Maths Bk3
				a point in two dimension	locate a point	coordinates	Pg234
	4	Vester (2)	Coordinates in 3	Du the and of the lessen the	Learners draw a 3	Model of cube	Ev Evalore
	4	Vector (2)	dimensions	By the end of the lesson the learner should be able to locate	dimension Cartesian	and a cuboid	Ex Explore Maths Bk3
	1		unnensions	rearrier should be able to locate	umension Cartesian	and a cuboid	IVIAUIS DKS

				a point in three dimension coordinate system	plane and locate a point		Pg 235
	5	Vector (2)	Column vector in 3 dimensions	By the end of the lesson the learner should be able to represent vectors as column	Learners represent vectors in 3 dimension	Model of a cube	Explore Maths Bk3 Pg235
	6	Vector (2)	Position vector in 3 dimensions	by the end of the lesson the learner should be able to represent vectors as position	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg235
	7	Vector (2)	Column vector and Position vector	By the end of the lesson the learner should be able to distinguish between a column	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg237
12	1	Vector (2)	Column vectors in terms of I, j and k	by the end of the lesson the learner should be able to represent column vectors in terms of I, j and k	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg236
	2	Vector (2)	Magnitude of vector in 3 dimension	By the end of the lesson the learner should be able to determine the magnitude of a vector in three dimensions	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg238
	3	Vector (2)	Internal division of a line	By the end of the lesson the learner should be able to use vector method to divide a line internally	Teacher/pupil discussion	illustrations	Explore Maths Bk3 Pg245
	4	Vector (2)	External division of a line	By the end of the lesson the learner should be able to use vector method in dividing a line externally	Learners state the ratio in which a point divides a line	Chalkboard illustrations	Explore Maths Bk3 Pg246
	5	Vector (2)	Parallel vectors	By the end of the lesson the learner should be able to use vector method to show collinearity	Learners show parallelism	Chalkboard illustrations	Explore Maths Bk3 Pg243
	6	Vector (2)	Co linearity	By the end of the lesson the learner should be able to show collinearity	Learners show collinearity	Chalkboard illustrations	Explore Maths Bk3 Pg244

	7	Vector (2)	Problem solving	By the end of the lesson the	Learners solve	Past paper	Past papers	
				learner should be able to solve	problems	questions		
				problems on vectors				
13	1	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	2	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	3	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	4	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	5	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	6	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
	7	Vector (2)		By the end of the lesson the			Explore	
				learner should be able to			Maths Bk3	
							Pg	
14	END T	TERM EXAMINA	TION AND CLOSSING	G SCHOOL		·		

		M	ATHEMATI	CS FORM 3 SCHEM	IES OF WO	ORK – TER	M 3	
WK	LSN	TOPIC	SUB-TOPIC	OBJECTIVES	L/ACTIVITIES	L/T AIDS	REFERENCE	REMARKS
1	1-6	REPORTING	AND REVISION OF L	AST TERM'S EXAMS	1		1	
2	1&2	REVISION O	F EXAMS					
	3	Vector (2)	Deriving the ratio theorem for internal division of a line	By the end of the lesson the learner should be able to derive the ratio theorem for internal division of a line	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg. 258	
	4	Vector (2)	Deriving the ratio theorem for external division of a line	By the end of the lesson the learner should be able to derive the ratio theorem for external division of a line	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.267	
	5	Vector (2)	Application of the ratio theorem	By the end of the lesson the learner should be able to apply ratio theorem to solve a vector problem	Learners use the ratio theorem	Chalkboard illustrations	Explore Maths Bk3 Pg.268-269	
	6	Vector (2)	Application of vector to geometry	By the end of the lesson the learner should be able to apply vector to geometry	Learners apply vector to geometry	Chalkboard illustrations	Explore Maths Bk3 Pg.261-263	
	7	Vector (2)	Problem solving	By the end of the lesson the learner should be able to solve problems on vectors	Learners solve problems	Past paper questions	Past papers	
3	1	Binomial Expansions	Expansion up to power 4	By the end of the lesson the learner should be able to expand binomial expressions up to power 4 by multiplication	Learners expand the expansions	Chalkboard illustrations	Explore Maths Bk3 Pg.228	
	2	Binomial Expansions	Pascal's triangle	By the end of the lesson the learner should be able to build up Pascal's triangle up to the eleventh raw	Teacher/pupil discussion	Chart illustrating Pascal's triangle illustrations	Explore Maths Bk3 Pg.229	
	3	Binomial Expansions	Coefficient of terms in binomial expansion	By the end of the lesson the learner should be able to use Pascal's triangle to determine the coefficient of terms in a binomial expansion up to the power of 10	Learners determine the coefficient	Chalkboard illustrations	Explore Maths Bk3 Pg.230	
	4	Binomial Expansions	Computation using binomial expansion	By the end of the lesson the learner should be able to compute using binomial expansion	Learners compute using the expansion	Chalkboard illustrations	Explore Maths Bk3 Pg.231	
	5	Binomial Expansions	Stating terms	By the end of the lesson the learner should be able to state a certain term in a binomial expansion	Learners state the terms	Chalkboard illustrations	Explore Maths Bk3 Pg.232	

	6	Binomial	Numerical cases	By the end of the lesson the learner	Learners apply	Chalkboard	Explore	
		Expansions		should be able to apply binomial	expansions to	illustrations	Maths Bk3	
				expansion to numerical cases	numerical cases		Pg.232	
	7	Binomial	Problem solving	By the end of the lesson the learner	Learners solve	Chalkboard	Explore	
		Expansions		should be able to solve problems on	problems	illustrations	Maths Bk3	
				binomial expansions			Pg.233	
4	1	Probability	Definition	By the end of the lesson the learner	- Learners toss a	- Coin	Explore	
			experimental	should be able to Define probability	coin and write	- Die	Maths Bk3	
			probability	Determine probability from	down the		Pg.171	
				experiments	outcome on a			
					table.			
					- Learners toss a			
					dice			
	2	Probability	Probability from real	By the end of the lesson the learner	Learners state	Chalkboard	Explore	
			life situation	should be able to give examples of	real life examples	illustrations	Maths Bk3	
				real life situation and give their			Pg.172-173	
				probabilities				
	3	Probability	Construct a	By the end of the lesson the learner	Learners	- Coin	Explore	
			probability space	should be able to construct a	construct a	- Die	Maths Bk3	
				probability space	probability space		Pg.174	
					by tossing two			
					dice at the same			
					time			
	4	Probability	Range of probability	By the end of the lesson the learner	Learners state the	Chalkboard	Explore	
			measure	should be able to state the range of	range of	illustrations	Maths Bk3	
				probability measure	probability		Pg.175	
	5	Probability	Theoretical	By the end of the lesson the learner	Learners	Chalkboard	Explore	
			probability	should be able to determine	determine	illustrations	Maths Bk3	
				theoretical probability	theoretical		Pg.176	
		7 1 1 1 1 1 1	75		probability	C1 11 1	77. 1	
	6	Probability	Discrete probability	By the end of the lesson the learner	Learners give	- Chalkboard	Explore	
				should be able to define discrete	examples of	illustrations	Maths Bk3	
				probability and determine the	discrete	- calculators	Pg.177	
			<u> </u>	probability	probability	~		
	7	Probability	Continuous	By the end of the lesson the learner	Learners give	- Chalkboard	Explore	
			probability	should be able to define continuous	examples of	illustrations	Maths Bk3	
				probability and determine the	continuous	- calculators	Pg.247	
				probability	probability			

5	1	Probability	Mutually exclusive	By the end of the lesson the learner	Learners give	Chalkboard	Explore
			events	should be able to define mutually	examples	illustrations	Maths Bk3
				exclusive events and give examples	_		Pg.249
	2	Probability	Solve problems	By the end of the lesson the learner	Teacher/pupil	Chalkboard	Explore
			involving mutually	should be able to solve problems	discussion	illustrations	Maths Bk3
			exclusive events	involving mutually exclusive events			Pg.250
	3	Probability	Independent events	By the end of the lesson the learner	Teacher/pupil	Chalkboard	Explore
				should be able to define independent	discussion	illustrations	Maths Bk3
				events and give examples			Pg.251
	4	Probability	Problem solving on	By the end of the lesson the learner	Teacher/pupil	Chalkboard	Explore
			independent events	should be able to solve problems	discussion	illustrations	Maths Bk3
				involving independent events			Pg.252
	5	Probability	Problem solving on	By the end of the lesson the learner	Learners state	Chalkboard	Explore
			independent events	should be able to state the laws of	laws	illustrations	Maths Bk3
				probability			Pg.253
	6	Probability	Application of the	By the end of the lesson the learner	Learners solve	Chalkboard	Explore
			laws	should be able to apply the laws of	problems	illustrations	Maths Bk3
				probability			Pg.254
	7	Probability	Tree diagrams	By the end of the lesson the learner	Learners draw	Chalkboard	Explore
				should be able to use tree diagrams	tree diagrams	illustrations	Maths Bk3
				to show probabilities	from given		Pg.255
					information		
6	1	Probability	Tree diagrams (with	By the end of the lesson the learner	Learners draw	- Chalkboard	Explore
			replacement)	should be able to	trees from	illustrations	Maths Bk3
				© Education Plus Agencies	information	- calculators	Pg.256
				solve problems of picking items with			
				replacement using tree diagrams			
	2	Probability	Without replacement	By the end of the lesson the learner	Learners draw	- Chalkboard	Explore
				should be able to solve problems of	trees diagrams	illustrations	Maths Bk3
				picking items with replacement	from information	- calculators	Pg.257
				using tree diagrams			
	3	Probability	Problem solving	By the end of the lesson the learner	Learners solve	- Calculators	Explore
				should be able to solve problems on	problems	- Past paper	Maths Bk3
				probability		questions	Pg.256
	4	Probability	Definition of terms	By the end of the lesson the learner	Learners define	Dictionary	Explore
			used	should be able to explain terms like	terms		Maths Bk3
				at least, at most, not more than, not			Pg.257
				less than with respect to probability			

	5	Compound	Proportional parts	By the end of the lesson the learner	Teacher/pupil	Calculators	Explore	
		Proportions	Ratio method	should be able to solve problems	discussion		Maths Bk3	
		And Rates Of		involving compound proportions			Pg.126	
		Work		using the ratio method			131-132	
	6	Compound	Proportional parts	By the end of the lesson the learner	Teacher/pupil	Calculators	Explore	
		Proportions	Unitary method	should be able to solve problems	discussion		Maths Bk3	
		And Rates Of		involving compound proportions			Pg.127	
		Work		using the unitary method				
	7	Compound	Application of ratios	By the end of the lesson the learner	Learners apply	Chalkboard	Explore	
		Proportions	to real life situation	should be able to apply ratios to real	ratios to real life	illustrations	Maths Bk3	
		And Rates Of		life situations	situations		Pg.128	
		Work						
7	1	Compound	Application of	By the end of the lesson the learner	Learners apply	Chalkboard	Explore	
		Proportions	proportion to real life	should be able to apply proportion to	proportion to real	illustrations	Maths Bk3	
		And Rates Of	situation	real life situation	life situation		Pg.129	
		Work						
	2	Compound	Rates of work	By the end of the lesson the learner	Teacher/pupil	Chalkboard	Explore	
		Proportions		should be able to solve problems	discussion	illustrations	Maths Bk3	
		And Rates Of		involving rates of work			Pg.133	
		Work						
	3	Compound	Mixtures	By the end of the lesson the learner	Learners	- Chalkboard	Explore	
		Proportions		should be able to calculate the ratio	calculate ratio of	illustrations	Maths Bk3	
		And Rates Of		in which the mixture must be mixed	the mixture	- calculators	Pg.134	
		Work						
	4	Compound	Mixtures	By the end of the lesson the learner	Learners	- Chalkboard	Explore	
		Proportions		should be able to calculate the cost	calculate cost of	illustrations	Maths Bk3	
		And Rates Of		of the mixture given the ratio in	mixture	- calculators	Pg.135	
		Work		which the mixture is mixed				
	5	Compound	Problem solving	By the end of the lesson the learner	Learners solve	Past paper questions	Explore	
		Proportions		should be able to solve problems on	problems		Maths Bk3	
		And Rates Of		compound proportions and rates of			Pg.136-137	
		Work		work				
	6	Graphical	Tables from a given	By the end of the lesson the learner	Learners make	Relations	Explore	
		Methods	relation	should be able to make a table of	tables of values		Maths Bk3	
				values from given relations			Pg.271	
	7	Graphical	Drawing graphs	By the end of the lesson the learner	Learners draw	Tables tabulated	Explore	
		Methods		should be able to use the table of	graphs		Maths Bk3	
				values to draw graph of the relations			Pg.272	

8	1	Graphical Methods	Cubic equations	By the end of the lesson the learner should be able to graph cubic	Learners draw cubic graphs	Graph papers	Explore Maths Bk3 Pg.274
	2	Graphical Methods	Solution of cubic equations	By the end of the lesson the learner should be able to state the graphical solutions of cubic equations	Learners read out the solutions from the graph	Cubic graphs	Explore Maths Bk3 Pg.275
	3	Graphical Methods	Average rate of change	By the end of the lesson the learner should be able t determine the average rate of change	Teacher/pupil discussion	Chalkboard illustrations Graphs	Explore Maths Bk3 Pg.278-279
	4	Graphical Methods	Instantaneous rate of change	By the end of the lesson the learner should be able to determine and interpret instantaneous rate of change from the graph	Teacher/pupil discussion	Graphs draws	Explore Maths Bk3 Pg.280-283
	5	Graphical Methods	Empirical graphs Rewriting the equation in the form of y=mx+c	By the end of the lesson the learner should be able to rewrite equations given in the form of y=mx+c to give a straight line graph	Learners rewriting equations in the form y=mx+c	y=ax <sup>n</sup> y=U+b x	Explore Maths Bk3 Pg.287-290
	6	Graphical Methods	Empirical graphs	By the end of the lesson the learner should be able to draw and interpret empirical graphs	Learners draw empirical graphs	Graph papers	Explore Maths Bk3 Pg.292
	7	Graphical Methods	Lines of best fit	By the end of the lesson the learner should be able to draw the line of best fit	Learners draw lines of best fit	Graph papers	Explore Maths Bk3 Pg.293-295
9	1	Graphical Methods	Equation of a circle centre (0,0)	By the end of the lesson the learner should be able to derive the equation of a circle centre (0,0) radius r units	Teacher/pupil discussion	Chalkboard illustrations	Explore Maths Bk3 Pg.297
	2	Graphical Methods	Equation of a circle centre (a,b) radius v units	By the end of the lesson the learner should be able to derive the equation of a circle centre (a,b) radius r units	Teacher leads learners to derive (x-a) <sup>2</sup> +(y-b) <sup>2</sup> =r <sup>2</sup>	Chalkboard illustrations	Explore Maths Bk3 Pg.298
	3	Graphical Methods	Find the equation given centre and radius	By the end of the lesson the learner should be able to find the equation of a circle given the centre and radius of a circle	Learners find equations	Chalkboard illustrations	Explore Maths Bk3 Pg.299
	4	Graphical Methods	Finding centre and radius given equation	By the end of the lesson the learner should be able to find the centre and radius of a circle given its equation	Learners determine centre and radius	Chalkboard illustrations	Explore Maths Bk3 Pg.299
	5	Graphical Methods	Application to real life situation	By the end of the lesson the learner should be able to apply graphical	Learners solve problems	Chalkboard illustrations	Explore Maths Bk3

				methods to real life situation and solve problems			Pg.300	
	6 and 7	Graphical	Problem solving	By the end of the lesson the learner	Learners solve	Past paper questions	Explore	
		Methods		should be able to solve problems on	problems		Past paper	
				graphical methods			questions	
10		TOPICAL REV	VISION					
11		END OF YEAR	R EXAMINATIONS					
12		PREPARATIO	N OF REPORTS AND	CLOSING				