Mathematics Core – STUDENT ONLINE

Gr 10 SO Term Planning – 2022

TERM 1

WEEK	DATE/WEEK OF		TOPIC
1	17 JAN	ALGEBRAIC	**Alg expressions**-Q Q'; surd; rounding off; bixtri
2	24 JAN	EXPRESSIONS	**Alg expressions**- factorise
3	31 JAN		**Alg expressions** – simplify fractions
4	7 FEB		EXAM QUESTIONS
5	14 FEB	EXPONENTS,	**Exponents** (UNIT 8)– revision ; simplify expressions
6	21 FEB	EQUATIONS,	**Exponents** – solve equations
7	28 FEB	INNEQUALITIES	**Equations** –linear; quadratic; simultaneous
8	7 MARCH		**Inequalities** & simultaneous EQUATIONS ,word pr; subject CHANGE
9	14 MARCH	**EUCLIDEAN**	PROPERTIES OF TRIANGLES AND QUADRILATERALS
10	21 MARCH	**GEOMETRY**	SOLVING PROBLEMS

TERM 2

WEEK	DATE/WEEK OF		TOPIC
11	4 APRIL	**TRIGONOMETRY**	**Trigonometry**- ratios & definitions ,reciprocals;
12	11 APRIL		**Trigonometry** – (*special angles*), equations; use diagrams
13	18 APRIL	**NUMBER PATTERNS**	GR9 REVISION AND LINEAR PATTERNS
14	25 APRIL	**FUNCTIONS**	**LINEAR**
15	2 MAY		QUADRATIC
16	9 MAY		HYPERBOLIC
17	16 MAY		**EXPONENTIAL**
18	23 MAY		**Functions** – trig graphs
19	30 MAY		EXAM QUESTIONS
20	6 JUNE	MEASUREMENT	**Measurement**: Vol & SA of PRISMS
21	13 JUNE		**Measurement** – vol & SA of spheres, pyramids ,cones
22	20 JUNE		EXAM QUESTIONS

TERM 3

WEEK	DATE/WEEK OF		TOPIC
23	18 JULY	**TRIGONOMETRY 2D**	REVISION AND 2D PROBLEMS
24	25 JULY		EXAM QUESTIONS
25	1 AUGUST	**STATISTICS**	**Statistics**-revision; group&ungrouped tendencies
26	8 AUGUST		**Statistics**- measure of disp, quart, 5 number sum
27	15 AUG	**PROBABILITY**	INTRO, TERMINOLOGY, PROBABILITY
28	22 AUG		VENN AND TREE DIAGRAM
29	29 AUG	**FINANCE AND**	SIMPLE & COMPOUND INTEREST
30	5 SEPT	**GROWTH**	HIRE PURCHASE AND FOREIGN EXCHANGE
31	12 SEPT	**ANALYTICAL**	**DISTANCE AND MIDPOINT**
32	19 SEPT	**GEOMETRY**	GRADIENT & EQUATION OF LINE
33	26 SEPT		EXAM QUESTIONS

TERM 4

WEEK	DATE/WEEK OF		TOPIC
34	10 OCT	**EUCLIDEAN**	PROVING QUADS
35	17 OCT	**GEOMETRY**	EXAM QUESTIONS
36	24 0CT	**REVISION**	PAPER 1 REVISION/QUESTIONS
37	31 OCT		**PAPER 2 REVISION/QUESTIONS**

MATHEMATICS CORE

Gr 11 SO Term Planning – 2022

TERM 1

WEEK	DATE/WEEK OF		TOPIC
1	17 JAN	EXPONENTS AND SURDS	EXPONENTS
2	24 JAN		SURDS
3	31 JAN	**EQUATIONS AND INEQUALITIES**	**Equations and inequalities**: exp & surd equations
4	7 FEB		**Equations and inequalities**: quadr-fact,completing square,formulae
5	14 FEB		**Equations and inequalities**: quad ineq,simult & REVISION/MIX ,nature of roots Exam questions
6	21 FEB	**EUCLIDEAN GEOMETRY**	**Euclidean Geometry: CIRCLES/MIDPOINT** • Radius bisect chord & perp to tangent • Angle subtended by arc(ang at centre) • Angle in semi-circle
7	28 FEB		**Euclidean Geometry: CYCLIC QUADS** • Angle subtended by same chord • Opp angles of cycl quad • Exterior angle
8	7 MARCH		**Euclidean Geometry**: TANGENTS • TAN CHORD THEOREM • TANGENTS FROM SAME POINT • TANGENT-RADIUS • MIXED EXAMPLES/EXAM QUESTIONS
9	14 MARCH	**TRIGONOMETRY**	**Trigonometry**: identities
10	21 MARCH		**Trigonometry**: reduction formulae & negative angle

TERM 2

WEEK	DATE/WEEK OF		TOPIC
11	4 APRIL	**TRIGONOMETRY**	**Trigonometry**: value of variable & trig equations; REVISION/MIXED EXAMPLES
12	11 APRIL	**ANALYTICAL GEOMETRY**	**Analytical Geometry** :equation of line
13	18 APRIL		**Analytical Geometry**: line parallel/perpend
14	25 APRIL		**Analytical Geometry**: inclination angle
15	2 MAY	**NUMBER PATTERNS**	**Number patterns** :revision & quadratic
16	9 MAY		EXAM QUESTIONS
17	16 MAY	**FUNCTIONS**	**LINEAR Functions**:
18	23 MAY		**QUADRATIC Functions**:
19	30 MAY		**EXPONENTIAL & HYPERBOLIC Functions**:
20	6 JUNE		**Functions**: trig graphs- Effect of p and sketch
21	13 JUNE		**TRIG GRAPHS & EXAM QUESTIONS**
22	20 JUNE		**EXAM QUESTIONS**

TERM 3

WEEK	DATE/WEEK OF		TOPIC
23	18 JULY	**TRIGONOMETRY: SINE, COSINE, AREA RULE**	AREA AND SINE RULE
24	25 JULY		COSINE RULE
25	1 AUGUST		EXAM QUESTIONS
26	8 AUGUST	**MEASUREMENT**	**Measurement**: PRISMS
27	15 AUG		PYRAMIDS AND SPHERES
28	22 AUG	**STATISTICS**	**Statistics**: histograms& frequency polygons, ogives
29	29 AUG		**Statistics:** variance and standard deviation
30	5 SEPT		**Statistics**: skewed data, identify outliers/***REVISION***
31	12 SEPT	**PROBABILITY**	**Probability**: venn diagrams
32	19 SEPT		**Probability**: tree diagrams; contingency tables
33	26 SEPT		**RULES**

TERM 4

WEEK	DATE/WEEK OF		TOPIC
34	10 OCT	**PROBABILITY**	EXAM QUESTIONS
35	17 OCT	**FINANCE GROWTH AND DECAY**	**Finance, growth and decay**: simple & compound ,nominal
36	24 0CT		**Finance, growth and decay**: effect of different periods
37	31 OCT		**TIMELINE**

MATHEMATICS CORE

GRAAD 12 SO term planning – 2022

TERM 1

WEEK	DATE/WEEK OF		TOPIC
1	17 JAN	**NUMBER PATTERNS, SEQUENCE & SERIES**	**Nr patterns**: revise gr11 work, A & G SEQUENCE
2	24 JAN		**Series**: AR and GEOG & SIGMA
3	31 JAN		**Sequence & series**: INFINITY and mixed
4	7 FEB		EXAM QUESTIONS
5	14 FEB	**EUCLIDEAN GEOMETRY**	**Euclidean Geom**: revision & similar polygons
6	21 FEB		**Euclidean Geom:** proportional triangles
7	28 FEB		EXAM QUESTIONS
8	7 MARCH	**TRIGONOMETRY**	**Trig**: compound angles & double INTRO, diagram & reduction
9	14 MARCH		**Trig**: identities & equations
10	21 MARCH		**Trig**: mix & triangle; 2D & 3D

TERM 2

WEEK	DATE/WEEK OF		TOPIC
11	4 APRIL	**ANALYTICAL GEOMETRY**	**Co-ordinate geometry**: revision &circle
12	11 APRIL		**Co-ordinate geom**.: circle midpoint moved & equation of tangent
13	18 APRIL	**FUNCTIONS (INVERSES, LOGS, EXPONENTIAL)**	**Functions & inverse functions:** Functions & Inverse
14	25 APRIL		**Exp & Log**: Revision + Log & Log functions
15	2 MAY	**DIFFERENTIAL CALCULUS (& Polynomials)**	**Polynomials**: factorise & solve + **Calculus**: limits & derivatives&rules
16	9 MAY		**Calculus**: limits & derivatives&rules continue
17	16 MAY		**Calculus**: equation of tangents,2nd derivative
18	23 MAY		GRAPHS
19	30 MAY		OPTIMISATION & APPLICATIONREAL LIFE PROBLEMS
20	6 JUNE	**FINANCE, GROWTH & DECAY**	**Financial Maths**: revision, formulae annuities
21	13 JUNE		**Financial Maths**:a[pplication, time periods,
22	20 JUNE		Analyse investments, sinkingfund

TERM 3

WEEK	DATE//WEEK OF		TOPIC
23	18 JULY	**STATISTICS**	**REVISE GR11 STATS**
24	25 JULY		**SKEWED DATA; OUTLIERS**
25	1 AUGUST		**LEAST SQUARE REGRESSION LINE**
26	8 AUGUST	**COUNTING & PROBABILITY**	**GR11 REVISION: VENN & TREE DIAGRAM**
27	15 AUG		**TWO-WAY CONTINGENCY TABLES & RULES**
28	22 AUG		**Counting principle & application**
	29 AUG		**TRIAL EXAMINATION**
	5 SEPT		
	12 SEPT		