GAUTENG PROVINCE

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MATHEMATICS – ANNUAL TEACHING PLAN –GRADE 11
GRADE 11 ATP 2026

DATE	TOPIC	CONTENT	FORMAL (F)	ASSESSMENT	DATE COMPLETED	% COMPLETED
TERM 1			**2 TASKS FOR TERM 1**			
Week 1 14/1 -16/1 **(3 days)**	**Exponents and Surds**	▪ Simplify expressions and solve equations using the laws of exponents for rational exponents where, $x^{\frac{p}{q}} = \sqrt[q]{x^p}$; $x>0$; $q>0$ ▪ Add, subtract, multiply and divide simple surds ▪ Solve simple equations involving surds.				**3%**
Week 2 19/1 – 23/1 **(5 Days)**	**Exponents and Surds**	▪ Solve Quadratic equations by factorization ▪ Complete the square	**FORMAL TASK**	**Investigation / Project** **Weighting: 25%**		**6%**
Week 3 26/1 – 30/1 **(5 Days)**	**Equations and inequalities**	▪ Solve Quadratic equations by using the quadratic formula ▪ Solve Quadratic inequalities in one unknown (Interpret solutions graphically.)				**9%**
Week 4 2/2 – 6/2 **(5 Days)**	**Equations and inequalities**	▪ Equations in two unknowns, one of which is linear and the other quadratic. **NB**: It is recommended that the solving of equations in two unknowns is important to be used in other equations like hyperbola-straight line as this is normal in the case of graphs				**12%**
Week 5 9/2 – 13/2 **(5 Days)**	**Equations and inequalities**	▪ Nature of roots Determine the nature of roots and the conditions for which the roots are Real, Non-Real , equal , unequal , Rational and Irrational				**15%**
Week 6 16/2 –20/2 **(5 Days)**	**Trigonometry**	Revise definitions of trig ratios using a unit circle: **(1 day)** 1. Derive and use the identities: sin θ $tan\theta = \frac{sin\theta}{cos\theta}$, $\theta \neq k.90^{\circ}, k$ an odd integer; and $sin^2\theta + cos^2\theta = 1$.				**18%**

Week 7 23/2 – 27/2 **(5 Days)**	**Trigonometry**	2.Derive and use reduction formulae to simplify the following expressions: 2.1$sin\ (90^\circ \pm \theta)$; $cos\ (90^\circ \pm \theta)$; 2.2$sin\ (180^\circ \pm \theta)$; $cos\ (180^\circ \pm \theta)$ and $tan\ (180^\circ \pm \theta)$; 2.3$sin\ (360^\circ \pm \theta)$; $cos\ (360^\circ \pm \theta)$ and $tan\ (360^\circ \pm \theta)$; 2.3$sin\ (-\theta)$; $cos\ (-\theta)$ and $tan\ (-\theta)$;				**21%**
Week 8 2/3 – 6/3 **(5 Days)**	**Trigonometry**	3. Determine for which values of a variable an identity holds. 4. Determine the general solutions of trigonometric equations. Also, determine solutions in specific intervals.				**24%**
Week 9 9/3 – 13/3 **(5 Days)**	**Trigonometry**	4. Determine the general solutions of trigonometric equations. Also, determine solutions in specific intervals.	**FORMAL TASK**	**Test SBA: Weighting: 75%**		**26%**
Week 10 16/3 – 20/3 **(5 days)**	**Analytical Geometry**	1. Revise, • distance between the two points; • gradient of the line segment connecting the two points (and from that identify parallel and perpendicular lines); and • Coordinates of the mid-point of the line segment joining the two points.				**29%**
Week 11 23/3 – 27/3 **(5 Days)**	**Analytical Geometry**	2. Derive and apply, • the equation of a line through two given points. • the equation of a line through one point and parallel or perpendicular to a given line; and • The inclination of (θ) of a line, where $m = tan\theta$ is the gradient of the line ($0^\circ \leq \theta \leq 180^\circ$).				**32%**
END OF TERM 1 SCHOOLS CLOSES ON 27/03/2026						

DATE	TOPIC	CONTENT	FORMAL (F)	ASSESSMENT	DATE COMPLETED	% COMPLETED
TERM 2		**2 TASKS FOR TERM 2**				
Week 1 8/4 – 10/4 **(3 days)**	**Euclidean Geometry**	1. Accept results established in earlier grades as axioms and, also that a tangent to a circle is perpendicular to the radius drawn to the point of contact.				**35%**
Week 2 13/4 –17/4 **(5 days)**	**Euclidean Geometry**	2. Then investigate and prove the theorems of the geometry of circles: • The line drawn from the centre of a circle perpendicular to a chord bisects the chord. • The line drawn from the centre of a circle to the midpoint of a chord is perpendicular to the chord. • The perpendicular bisector of a chord passes through the centre of the circle. • The angle subtended by an arc at the centre of a circle is double the size of the angle subtended by the same arc at the circle (on the same side of the chord as the centre).				**38%**
Week 3 20/4 – 24/4 **(5 days)**	**Euclidean Geometry**	• Angles subtended by a chord of the circle, on the same side of the chord, are equal. • The opposite angles of a cyclic quadrilateral are supplementary. • An exterior angle of a cyclic quadrilateral is equal to an angle in the alternate segment.				**41%**
27 April	**Freedom Day Observed**					
Week 4 28/4 – 30/4 **(3 days)**	**Euclidean Geometry**	• Two tangents drawn to a circle from the same point outside the circle are equal in length. • The angle between the tangent to a circle and the chord drawn from the point of contact is equal to the angle in the alternate segment. **Use the above theorems and their converses, where they exist, to solve riders.**	**FORMAL TASK**	**ASSIGNMENT Weighting :25%**		**44%**

1 May	**Workers Day**					
Week 5 4/5 – 8/5 **(5 days)**	**Functions**	1. Revise the effect of the parameters a and q and investigate the effect of p on the graphs of the functions defined by: • $y = f(x) = a(x + p) + q$ • $y = f(x) = a(x + p)^2 + q$				**47%**
Week 6 11/5 –15/5 **(5 days)**	**Functions**	• Revise the effect of the parameters a and q and investigate the effect of p on the graphs of the functions defined by: • $y = f(x) = \frac{a}{x+p} + q$				**50%**
Week 7 18/5 – 22/5 **(5 days)**	**Functions**	• Revise the effect of the parameters a and q and investigate the effect of p on the graphs of the functions defined by: $y = f(x) = a.\ b^{x+p} + q$ where $b > 0\ b \neq 1$				**53%**
Week 8 25/5 – 29/5 **(5 days)**	**Functions**	• Investigate numerically the average. gradient between two points on a curve and develop an intuitive understanding of the concept of the gradient of a curve at a point.				**56%**
Week 9 1/6 – 5/6 **(5 days)**	**Trigonometry Functions**	• Point by point plotting of basic graphs defined by $y = sin\ \theta$, $y = cos\ \theta$ and $y = tan\ \theta$ for $\theta \in [-360^\circ; 360^\circ]$. • Investigate the effect of the parameter k on the graphs of the functions defined by, $y = sin\ (kx)$, $y = cos\ (kx)$ and $y = tan\ (kx)$				**59%**
15 June **16 June**	**Special School Holiday** **Youth Day**					
Week 10 8/6 – 12/6 **(5 days)**	**JUNE EXAMINATION**	**JUNE EXAMINATION**	**FORMAL**	**JUNE EXAMINATION** **Paper1 :100** **Paper 2:100** **Weighting : 75%**		
Week 11 17/6 – 19/6 **(3 days)**	**JUNE EXAMINATION**	**JUNE EXAMINATION**				

Week 12 22/6-26/6 **(5 days)**	**JUNE EXAMINATION**	**JUNE EXAMINATION**			
END OF TERM 2 SCHOOLS CLOSES ON 26/06/2026					

DATE	TOPIC	CONTENT	FORMAL (F)	ASSESSMENT	DATE COMPLETED	% COMPLETED
TERM 3			**2 TASKS FOR TERM 3**			
Week 1 21/7 –24/7 **(4 days)**	**Trigonometry Functions**	• Investigate the effect of the parameter p on the graphs of the functions defined by, $y = sin\,(x + p)$, $y = cos\,(x + p)$ and $y = tan\,(x + p)$				**62%**
Week 2 27/7 –31/7 **(5 days)**	**Trigonometry Functions**	• Draw sketch graphs defined by: $y = a\ sin\ k(x + p)$, $y = a\ cos\ k(x + p)$ and $y = a\ tan\ k(x + p)$ at most two parameters at a time.				**65%**
Week 3 3/8 –7/8 **(5 days)**	**Trigonometry (2D)**	• Prove and apply the sine, cosine and area rules • Solve problems in two dimensions using the sine, cosine and area rules.	**FORMAL TASK**	**TEST 1 Weighting :50%**		**68%**
10/8	**Public Holiday**					
Week 4 11/8 –14/8 **(4 days)**	**Trigonometry (2D)**	• Solve problems in two dimensions using the sine, cosine and area rules.				**71%**
Week 5 17/8 - 21/8 **(5 days)**	**Statistics**	• Revise measures of central tendency and dispersion in ungrouped and grouped data. • Revise Five number summary (maximum, minimum and quartiles) and box and whisker diagram. • Histograms Frequency polygons				**74%**

Week 6 24/8 –28/8 **(5 days)**	**Statistics**	• Ogives (cumulative frequency curves) • Variance and standard deviation of ungrouped data • Symmetric and skewed data Identification of outliers.				**76%**
Week 7 31/8 – 4/9 **(5 days)**	**Probability**	• Revise the use of probability models to compare the relative frequency of events with the theoretical probability. • Revise the use of Venn diagrams to solve probability problems, deriving and applying the following for any two events in a sample space S: **Addition rule** $P(A\ or\ B) = P(A) + P(B) - P(A\ and\ B)$; A and B are **Mutually exclusive** if $P(A\ and\ B) = 0$; Addition rule for mutually exclusive events A and B is: $P(A\ or\ B) = P(A) + P(B)$ ▪ A and B are complementary if they are, mutually exclusive and $P(A) + P(B) = 1$ Then • $P(B) = P(not\ A) = 1 - P(A)$				**79%**
Week 8 7/9 – 11/9 **(5 days)**	**Probability**	▪ Identify dependent and independent events and the product rule for independent events: $P(A\ and\ B) = P(A) \times P(B)$ • The use of Venn diagrams to solve probability problems, deriving and applying formulae for any three events A, B and C in a sample space S.	**FORMAL TASK**	**TEST** **Weighting : 50%**		**82%**

Week 9 14/9 – 18/9 **(5 days)**	**Probability**	• Use tree diagrams for the probability of consecutive or simultaneous events which are not necessarily independent. • Use contingency tables to solve probability problems for three events in a sample space				**85%**
Week 10 21/9 – 23/9 **(3 days)**	**Number Patterns**	▪ Revise linear number patterns.**(2 days)** ▪ Investigate number patterns leading to those where there is a constant second difference between consecutive terms, and the general term is therefore quadratic.				**94%**
24/9 **25/9**	**Heritage Day** **School Holiday**					
END OF TERM 3 SCHOOLS CLOSES ON 23/09/2026						

DATE	TOPIC	CONTENT	FORMAL (F)	ASSESSMENT	DATE COMPLETED	% Completed
TERM 4			**1 TASK FOR TERM 4**			
Week 1 6/10 – 9/10 **(4 days)**	**Number Patterns**	. Investigate number patterns leading to those where there is a constant second difference between consecutive terms, and the general term is therefore quadratic				**97%**
Week 2 12/10 – 16/10 **(5 days)**	**Finance, growth and decay**	1. Revise the use of the simple and compound growth formulae [$A = P(1 + in)$ and $A = P(1 + i)^n$] to solve problems, including interest, hire purchase, inflation, population growth and other real-life problems. 2. Understand the implication of fluctuating foreign exchange rates (e.g., on the petrol price, imports, exports, overseas travel).	**FORMAL TASK**	**TEST**		**88%**
Week 3 19/10 – 23/10 **(5 days)**	**Finance, growth and decay**	3. Use simple and compound decay formulae: $A = P(1 - in)$ and $A = P(1 - i)^n$ To solve problems (including straight line depreciation and depreciation on a reducing balance). 4.The effect of different periods of compound growth and decay, including nominal and effective interest rates				**91%**
Week 4 26/10– 30/10 **(5 days)**	**Revision Measurement**	• Revise the volume and surface areas of right-prisms and cylinders. • Study the effect on volume and surface areas when multiplying any dimension by a constant factor k. 1. Calculate volume and surface areas of spheres, right prisms, right cones and combination of those objects (figures).				**100%**

Week 5 2/11 – 6/11 **(5 days)**	**Revision Euclidean Geometry**					
Week 6 9/11 – 13/11 **(5 days)**	**FINAL EXAMINATION**				**Final Exam Weighting 75%**	
Week 7 16/11 – 20/11 **(5 days)**	**FINAL EXAMINATIONS**					
Week 8 23/11 – 27/11 **(5 days)**	**FINAL EXAMINATIONS**					
Week 9 31/11 – 4/12 **(5 days)**	**FINAL EXAMINATIONS**					
Week 10 7/12-11/12 **(5 days)**	**REPORTING**					
END OF TERM 4 SCHOOLS CLOSES 11/ 12 / 2026 : END OF YEAR						

note:

- Modelling as a process should be included in all papers, thus contextual questions can be set on any topic.
- Questions will not necessarily be compartmentalised in sections, as this table indicates. Various topics can be integrated in the same question.

Mark distribution for Mathematics NCS end-of-year papers: Grades 10-12			
Paper 1: Grades 12: bookwork: maximum 6 marks			
description	**Grade 10**	**Grade 11**	**Grade. 12**
Algebra and equations (and inequalities)	30 ± 3	45 ± 3	25 ± 3
Patterns and sequences	15 ± 3	25 ± 3	25 ± 3
Finance and growth	10 ± 3		
Finance, growth and decay		15 ± 3	15 ± 3
Functions and graphs	30 ± 3	45 ± 3	35 ± 3
Differential Calculus			35 ± 3
Probability	15 ± 3	20 ± 3	15 ± 3
Total	**100**	**150**	**150**
Paper 2: Grades 11 and 12: theorems and/or trigonometric proofs: maximum 12 marks			
description	**Grade 10**	**Grade 11**	**Grade 12**
Statistics	15 ± 3	20 ± 3	20 ± 3
Analytical Geometry	15 ± 3	30 ± 3	40 ± 3
Trigonometry	40 ± 3	50 ± 3	50 ± 3
Euclidean Geometry and Measurement	30 ± 3	50 ± 3	40 ± 3
Total	**100**	**150**	**150**

NB:

7 SBA TASKS TO BE COMPLETED IN 2026 YEAR END

MATHEMATICS GRADE 11

Task Number (SBA)	7 (Seven)						
Term	**Term1**		**Term 2**		**Term 3**		**Term 4**
Task Name	Project/ Investigation	Test	Assignment	June Exam	Test	Test	Test
Mark allocation indicate if fixed or suggested	Suggested Minimum Marks 50	Suggested Minimum Marks 50	Suggested Minimum Marks 50	Suggested Minimum Marks **100 PER PAPER**	Suggested Minimum Marks 50	Suggested Minimum Marks 50	Suggested Minimum Marks 50
Weighting for end of year	15%	14%	15%	14%	14%	14%	14%
Weighting per term reporting	25%	75%	25%	75%	50%	50%	**SBA = 40%** **Final Exam = 60%**