

Subject Assessment Plan - Mathematics and Numeracy - Higher Tier

GCSE Numeracy & GCSE Mathematics (Higher)

Evidence collected already	Link to specification
September Mock exam. 1 hr 45 mins	Based on Intermediate paper Autumn 2019 Unit 1 Mathematics (Non-calculator). Grades Allocated according to grade boundaries existing for these exams. Projected A grades boundary given for marks attained well above B grade boundary. No A* awarded
December Mock exam 1 hr 45 mins	Based on Higher paper Autumn 2020 Unit 2 Mathematics (Calculator). Grades Allocated according to averaged grade boundaries existing for similar papers as grade boundaries were not available at time of marking.
Evidence to be Collected	
Assessment 1: Calculator NOT allowed Number and Data Handling	Topics Included: <ul style="list-style-type: none"> • Applying algebra graphs to real life • Interpreting cumulative frequency graphs • Utility bill payments • Interpreting box and whisker plots • Listing outcomes from an experiment • Probability of combined events in a situation without replacement
Assessment 2: Calculator allowed Shape and Space	Topics Included: <ul style="list-style-type: none"> • Volume of a cylinder problem • Pythagoras theorem • Area of a triangle • Volume of a prism • Trigonometry, bearings • Speed, distance, time • Perimeters of Sectors • Surface areas of cones and cylinders • Area of a sector

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<p>Assessment 3: Calculator allowed Data Handling and Shape and Space</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Estimate of Mean from frequency table • Modal groups • Interpreting frequency tables • Trigonometry • Tree Diagrams • Errors in measurement /upper and lower bounds • Probability of events in a situation without replacement
<p>Assessment 4: Calculator allowed Number</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Exchange rates currency conversions • Calculating % profit • Lowest common multiple Highest common factor • Ratio problem • Pythagoras theorem • Compound % change • Volume in similar shapes • Surface Area of cylinder and hemisphere • Upper and lower bounds applied to area
<p>Assessment 5: Number Problems Calculator NOT allowed</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Drawing graphs of quadratic equations • Solve a quadratic equation by factorising • Solve simultaneous equations • Solving area problems creating quadratic equations • Graph transformations and function notation
<p>Assessment 6: Algebra Calculator allowed</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Simplifying indices (powers) in algebra and with numbers

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	<ul style="list-style-type: none"> • Solving equations by trial and improvement • Calculating angles in a triangle problem • Rearranging equations • Using the quadratic formula to solve an equation • Trigonometric graphs: Sketch and use to solve equations
<p>Assessment 7: Calculator NOT allowed Number and Shape and Space</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Properties of quadrilaterals • Transformations: rotation, enlargement at a centre • Reciprocals • Standard form • Volume of cylinders in terms of π. Simplifying ratios • Areas in similar shapes • Original values after multiple % change • Velocity / Time graphs • Trapezium rule • Volume in similar shapes • Volume of a cone in terms of π.
<p>Assessment 8: Calculator NOT allowed Number</p>	<p>Topics Included:</p> <ul style="list-style-type: none"> • Construct equations describing inverse proportion • Convert a recurring decimal to a fraction • Evaluate fractional powers • Simplifying surds • Calculating the radius of a sector from its area in terms of π.