

Maths KS3 Assessment Descriptors



Year 7

Level	Descriptors
Advanced	• Can use a variety of methods to compare probabilities of events. • Can produce and interpret a range of graphs including pie charts. • Can confidently calculate with mixed numbers, decimals and percentages. • Can manipulate a variety of algebraic expressions and solve more complex equations. • Can solve a variety of ratio problems, including those involving fractions and percentages. • Can find the area and perimeter of complex shapes, including circles and circle parts. • Can confidently read and interpret timetables and calculate with time intervals.
Secure	• Can use fractions, decimals and percentages to describe probabilities. • Can construct and interpret more complex graphs and charts. • Can calculate with simple fractions, decimals and percentages. • Can simplify expressions and solve 2 step equations. • Can solve problems involving ratio. • Can find the area and perimeter of a variety of 2D shapes . • Can calculate using time, including 24 hour clock.
Developing	• Can use a probability line to order events. • Can use basic charts and graphs to display data. • Can use written methods for calculations and understand order of operations. • Can work with expressions and solve simple equations. • Can write and simplify ratios. • Can find the area and perimeter of basic 2D shapes. • Can tell the time using analogue and digital clocks.
Foundation	• Can describe probabilities in words. • Can collect and process discrete data. • Can use basic number skills and order integers. • Can collect like terms and write simple expressions. • Can write ratios. • Know the properties of 2D and 3D shapes. • Has a basic understanding of clocks and time.

Year 8

Level	Descriptors
Advanced	• Can use a variety of charts and tables to identify all the outcomes of an event and calculate probabilities. • Can solve a variety of worded problems involving fractions, decimals, percentages and ratio. • Can form and solve a variety of complex equations, including with the unknown on both sides . • Has a good understanding of percentages and can solve a variety of percentage in context problems . • Is confident finding the perimeter, area, volume and surface area of 2D and 3D shapes . • Can select and identify the appropriate graph or average and use them to compare sets of data and draw conclusions.
Secure	• Can calculate with probabilities and understand terms such as mutually exclusive. • Can convert between and calculate with fractions, decimals and percentages. • Begins to work with more complex algebraic terms and operations such as expanding brackets. • Can understand percentages and use them in calculations. • Can find the area of 2D shapes, including those with circles and parts of circles. • Can use a variety of charts, graphs and averages to compare data sets.
Developing	• Can use fractions decimals and percentages to describe probabilities. • Can calculate with simple fractions and decimals. • Can simplify expressions and solve 2 step equations. • Can understand and find equivalent ratios. • Can find the area and perimeter of a variety of 2D shapes and the volume of basic 3D shapes. • Can use averages to compare sets of data.
Foundation	• Can describe probabilities in words and use a probability scale. • Begins to understand fractions and decimals. • Can simplify expressions and solve simple equations. • Can write and simplify ratios. • Can find the area and perimeter of basic shapes. • Can find averages from discrete data.

Year 9

Level	Descriptors
Advanced	• Can calculate with numbers written in different formats, such as surds and standard form. • Understand how to collect and categorise data and then construct a variety of graphs and charts to display and visualise the data. • Can draw and interpret linear and quadratic graphs. • Can manipulate and solve more complex algebraic expressions and equations, including factorising quadratics and solving simultaneous equations. • Can find averages from lists and tables for both discrete and continuous data. • Can draw and interpret more complex graphs such as cumulative frequency and use them to find summary statistics. • Can understand when variables are in direct or inverse proportion and solve problems involving proportion. • Understands how to find missing sides and angles in right angles triangles using Pythagoras and Trigonometry. • Can produce and interpret a variety of probability diagrams to calculate probability such as Venn diagrams and tree diagrams. • Can generate efficient strategies to solve complex, unfamiliar, and multi-step problems.
Secure	• Begins to recognise that measurements may be inaccurate and use error intervals. • Is able to categorise data and create graphs and charts to represent it. • Can plot and draw linear graphs and identify their features. • Begins to identify and use position to term rules for sequences. • Can find averages from lists and tables . • Can understand the difference between good and poor data presentation. • Can use different methods to solve percentages in context problems. • Can solve a variety of problems involving angles such as interior and exterior angles in polygons and bearings. • Can select the most appropriate diagram to use to list outcomes in order to calculate probability. • Can make deductions and use reasoning to obtain results, often using multi-step procedures.
Developing	• Can estimate calculations by using rounding. • Can understand different types of data, such as quantitative, qualitative, primary and secondary. • Can plot and draw simple linear graphs. • Can recognise and continue a variety of number sequences, such as linear, geometric and Fibonacci. • Can find averages and know the advantages and disadvantages of each.

	• Can draw graphs and charts and choose the correct graph for the data. • Can use percentages to solve different problems. • Can solve problems involving more complex angle facts such as angles in parallel lines. • Can use diagrams to list outcomes of events in probability such as two-way tables. • Can perform routine procedures accurately, including multi-step calculations.
Foundation	• Begins to estimate calculations by using rounding. • Begins to understand methods for collecting primary data such as surveys and experiments. • Can read and plot coordinates in 4 quadrants. • Can identify and use term to term rules for sequences. • Can find averages from lists. • Can use different charts and graphs to display data. • Can find simple percentages of amounts. • Can solve problems involving simple angle facts. • Can list outcomes of events in probability. • Can perform basic, routine procedures.