



Year 8	Maths Grade Descriptors
Progress Grade	Data Drop 1 - Autumn Term
Working Towards	A student can: <ul style="list-style-type: none">• Add and subtract positive integers. Choose and use an appropriate method to subtract whole numbers with up to 7 digits.• Multiply and divide negative integers by a positive number.• Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, making an estimate using multiples of 10 or 100 of the divisors and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context. Multiply and divide decimals – positive and negative.
Expected	A student can: <ul style="list-style-type: none">• Choose and use an appropriate mental or written method, including column addition and subtraction, to add and subtract decimal numbers with 1, 2 or 3 decimal places, including in the context of measures and money.• Multiply and divide negative integers by a negative number.• Extend mental calculations to cubes and cube roots.
Above	A student can: <ul style="list-style-type: none">• Use index notation for small integer powers.• Combine laws of arithmetic for brackets with mental calculations of square roots.• Solve multi-step problems in contexts, including money and decide which operations and methods to use.
Exceptional	A student can: <ul style="list-style-type: none">• Combine laws of arithmetic for brackets with mental calculations of square roots. Extend mental calculations to squares and square roots.• Extend mental calculations to cubes and cube roots.• Given a number written as a product of its prime factors, use this to write a multiple of the number as a product of its prime factors. Use extended functions on a calculator.



Year 8	Maths Grade Descriptors which build on those in Year 7
Progress Grade	Data Drop 2 - Spring Term
Working Towards	A student can: <ul style="list-style-type: none">• Interpret pie charts.• Measure an angle using a protractor.• Work out the mean, median and mode of a list of data.• Organise information into a frequency table.• Analyse data in a two-way table.• Analyse a line graph.• Produce and analyse a pictogram.• Draw a scatter graph.• Simplify algebraic powers.• Solve one-step equations.
Expected	A student can: <ul style="list-style-type: none">• Draw and interpret pie charts.• Calculate the mean from a frequency table.• Use two-way tables.• Use frequency tables for grouped data.• Draw a stem and leaf diagram for data.• Interpret stem and leaf diagrams.• Compare two sets of data using statistics or the shape of the graph.• Construct and analyse a line graph.• Draw a scatter graph and describe its correlation.• Write and use expressions involving powers, brackets and division.• Factorise expressions.• Solve two-step equations.



Above	<p>A student can:</p> <ul style="list-style-type: none">• Use a line of best fit on a scatter graph to make estimations.• Recognising why graphs may be misleading.• Comparing two pie charts.• Comparing line graphs.• Designing a grouped frequency table.• Forming and solving equations using shape and angle facts.• Comparing two stem and leaf diagrams.
Exceptional	<p>A student can:</p> <ul style="list-style-type: none">• Find the probability from a two-way table.• Compare a back-to-back stem and leaf diagram.• Solve more complex equations involving a combination of decimals, fractions, negative numbers and brackets.• Problem solving involving forming and solving equations.



Year 8	Maths Grade Descriptors which build on those in Year 7
Progress Grade	Data Drop 3 - Summer Term
Working Towards	A student can: <ul style="list-style-type: none">• Round numbers to a specified number of decimal places.• Order positive decimals in ascending order.• Order negative decimals in ascending.• Identify angle, side and symmetry properties of simple quadrilaterals.• Identify equivalent fractions.• Simplify fractions.• Add and subtract fractions with the same denominators.
Expected	A student can: <ul style="list-style-type: none">• Multiply any number by 0.1 and 0.01.• Round numbers to significant figures.• Divide any number by 0.1 and 0.01.• Divide a quantity into more than two parts in a given ratio.• Identify alternate and corresponding angles on parallel lines and their values.• Compare and order fractions, including fractions > 1.• Convert mixed numbers to improper fractions and improper fractions to mixed numbers.• Add and subtraction fractions with different denominators.
Above	A student can: <ul style="list-style-type: none">• Find the size of each interior angle or the size of each exterior angle or the number of sides of a regular polygon.• Find the reciprocal of simple numbers/fractions mentally.• Multiply and divide decimals – positive and negative.• Solve a ratio problem in context.• Interpret and write ratios to describe a situation.• Add and subtract fractions, with different denominators and mixed numbers.

**Exceptional**

A student can:

- Construct and solve equations from geometrical information.
- Find the reciprocal of simple numbers/fractions mentally.
- Solve problems involving division of fractions and whole numbers.
- Solve a ratio problem in context.
- Interpret and write ratios to describe a situation.