



# Getting Ready for...

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## **KS4 (GCSE) Maths**

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# Activities

## 1. Number skills

Practise your core skills of addition and subtraction and make sure that you are comfortable with your multiplication and division methods. Knowing your times tables will be integral to this skill!

Can you extend these skills to decimal numbers?

## 2. Area and perimeter

Learn the area formula. Can you calculate the area of 2D shapes, including a triangle, parallelogram, trapezium and a circle? What about combined shapes and parts of circles? Remember to use the correct units for your results.

Can you extend this to calculate the volume of prisms, including a cylinder?

## 3. Fractions, decimals and percentages

Can you convert between decimals, percentages and fractions?

Practise finding equivalent fractions for decimals and then cancelling them down to the simplest form. Can you convert decimals into percentages and vice versa?

Can you extend this by converting fractions into percentages using division?  
Try  $\frac{3}{8}$

## 4. Calculating quantities

Can you find percentages of a quantity? Can you do this with *and* without a calculator?

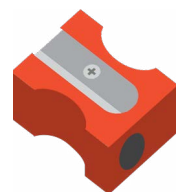
Can you find fractions of amounts?

Can you extend this to increasing an amount by a percentage? How about decreasing?

## 5. Algebra

Can you manipulate with algebra? Can you collect like terms? Can you expand a bracket? How about factorising a linear expression?

Can you extend this by working with terms which have powers?





## 6. Fractions

Can you add and subtract fractions? Can you multiply and divide them?

Can you extend this to mixed numbers?

## 7. Rounding

Can you round numbers? Can you round them to the nearest 10, 100, 1000?

Can you round decimal numbers to a given number of decimal places?

Can you extend this to rounding numbers using significant figures?

## 8. Equations

Can you solve linear equations? Can you solve 1 and 2 step equations? Can you solve equations when the unknown terms appears on 'both sides' of the equation?

Can you extend this to equations containing brackets? How about brackets and fractions?

## 9. Probability

Can you find the probability of an event occurring? Can you use fractions and decimals to state the probability of an event?

Can you extend this to real-life probability and calculate the relative frequency of an event?

## 10. Averages

Can you calculate averages? Can you calculate the mean, median and mode of a set of data? Can you also calculate the range?

Can you extend this to calculating the mean from grouped data?

Can you extend this by interpreting your averages – giving statements to state what they mean with relation to your data?

