



# Maths

## KS3 Curriculum Details

### Year 7

Content	Homework	Parent / Carer Support
<b>The number system</b> Calculate with negative numbers. Find factors and multiples of values. Recognise prime, square, cube numbers and their roots. Order of operations. Number calculations.	All submitted via Hegarty	Ask what the prime numbers are up to 30. Give your child calculations with up to 3 digit numbers.
<b>Constructing Algebra</b> Construct triangles accurately. Know the net of a cube. Collect like terms. Substitute values into expressions.		Ensure your child has a geometry set. Help your child with calculations involving negative values
<b>Proportional reasoning sequences</b> Use and simplify ratios. Solve problems involving proportion. Use a term to term rule to describe. Use a term to term rule to generate a sequence.		Give a recipe for 4 people and ask how much would be needed for 12 or 10 people. Ask what a linear sequence is.
<b>Fractions, decimals and percentages</b> Calculate with fractions. Calculate with percentages.		Ask your child to give you equivalent fractions, decimals & percentages. Ask your child what formulae they know for the area of shapes.
<b>Calculating space</b> Calculate the area of shapes. Calculate the volume of shapes. Use co-ordinates in all four quadrants.		Check students are getting "green" and if not students need to attend h/w club (see below)
<b>Mathematical movement</b> Use transformations to move shapes.		
<b>Presentation of data</b> Construct and interpret pie charts. Construct and interpret a line graph.		Ensure your child has a geometry set. Ask your child to explain what averages they know.
<b>Measuring data</b> Calculate and interpret averages. Use the mean to find a missing value.		

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## KS3 Curriculum Details

### Year 8

Content	Homework	Parent / Carer Support
<b>The Number System</b> Find the highest common factor and lowest common multiple. Use power notation. Order of operations with brackets.	All submitted via Hegarty	Ask how your child uses power notation. Give your child calculations with fractions and check on a calculator. Help your child with calculations involving negative values.
<b>Calculating</b> Number calculations with decimals, fractions and negative numbers.		Check students are getting "green" and if not students need to attend h/w club (see below)
<b>Algebra</b> Simplifying expressions. Expanding brackets. Substitute values into formulae.		
<b>Sequences</b> <b>Angles</b> Describe a sequence with a rule. Generate a sequence from a rule. Calculate missing angles in shapes. Explain reasoning using known angle facts.		Ensure your child has a geometry set.
<b>Fractions, decimals and percentages</b> Solve problems involving percentage changes.		Ask your child how to find percentages of a value.
<b>Equations &amp; inequalities</b> Solve equations using the balance method. Check solutions using substitution.		Check students are getting "green" and if not students need to attend h/w club (see below)
<b>Calculating space</b> <b>Presentation of data</b> Calculate the area of shapes. Calculate the perimeter of shapes. Construct and interpret graphs. Select the most appropriate graph.		Ask your child what formulae they know for the area of shapes.

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# Maths

## KS3 Curriculum Details

### Year 9

#### Content

#### Homework

#### Parent / Carer Support

#### The number system

Convert between numbers in standard index form.  
Work with powers and roots. Round values to a given degree of accuracy.

All submitted via Hegarty

Ensure your child has a scientific calculator for all maths lessons.

#### Algebraic manipulation

Simplify more complex expressions.  
Expanding more than one bracket.  
Work with basic laws of indices.

Check students are getting "green" and if not students need to attend h/w club (see below)

#### Sequences

Find the  $n$ th term of a sequence. Use the  $n$ th term to determine values in a sequence.

Ask your child to explain why the  $n$ th term is used.

#### Equations

Solving equations with unknowns on both sides.  
Forming equations from a practical situation.

Check students are getting "green" and if not students need to attend h/w club (see below)

#### Probability

List combinations systematically.  
Understand and calculate theoretical and experimental probability.

Ask your child to explain different probabilities when rolling 2 dice .

#### Data

Use and interpret scatter graphs.  
Recognise and explain the meaning of scatter graphs.

Ask your child to give you two variables that would have positive, negative or no correlation. Explain what correlations means.

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