

# KS3 Maths Curriculum Map

3-year Curriculum



**I** Subject Knowledge Organisers **T M**  
Use to support learning throughout.

**End of KS3 Assessment Prep**  
Your teacher will ensure that time is allocated to further develop revision and exam technique to prepare you for your final assessment of Key Stage 3

**Formal Assessment 2 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

**Introduction & Reflection**  
Time will be given to reflect on last years work and how improve on the progress made so far



Review and Retrieve through retrieval grids regularly

Off to GCSE

Summer 2:  
Polygons,  
Further  
Geometry and  
Mathematical  
Reasoning

C  
C  
T  
P  
S  
L

**Formal Assessment 3 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development. This will help inform which tier you will follow at GCSE

Summer 1:  
Formulae,  
Probability,  
Sequences,  
Graphical  
Solutions, Trig

C  
T  
A  
T  
P  
S  
I

**Formal Assessment 2 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Spring 2:  
Multiplicative  
Reasoning,  
Circles, Pythag,  
Accuracy and  
Measures

C  
Q  
R  
P  
S  
L

Spring 1:  
Geometry,  
Algebraic  
Graphs,  
Proportionality,  
Further Graphs

C  
T  
P  
S  
T  
I

**Formal Assessment 1 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Autumn 2:  
Stats, FDP,  
Data,  
Multiplicative  
Reasoning,  
Algebra,  
Analysing Data

C  
C  
T  
A  
T  
L

Autumn 1:  
Numbers,  
Sequences,  
Equations,  
Indices, Standard  
Form, Algebra  
and Quadratics

C  
Q  
R  
P  
S  
I

Year 9:  
Transition to skills required at GCSE

**Introduction & Reflection**  
Time will be given to reflect on last years work and how improve on the progress made so far

**Formal Assessment 2 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

**Formal Assessment 3 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Open book Unit Tests throughout to develop retrieval and revision skills

Autumn 1:  
Number,  
Shape,  
Measures,  
PAV, **Factors and Powers**

C  
Q  
R  
P  
S  
T

**Formal Assessment 1 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Autumn 2:  
Stats,  
Algebra,  
Graphs,  
Geometry

C  
C  
T  
P  
S  
L

Spring 1 & 2:  
Decimals, Ratio,  
Angles, Fractions,  
**Transformations, Constructions, Loci and FDP**

C  
T  
P  
S  
L  
C  
I

Summer 1:  
Sequences,  
FDP, Linear  
Graphs,  
**Probability and Scale**

C  
A  
T  
P  
S  
C  
I

Summer 2:  
Probability,  
Statistics,  
Charts and  
Graphs

C  
T  
Q  
R  
P  
S  
L

Year 8:  
Review and Retrieve through retrieval grids regularly

**I** Subject Knowledge Organisers **T M**  
Use to support learning throughout.

**Formal Assessment 1 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Topics in **RED** are exclusively for those pupils following the Higher Tier SoW

Open book Unit Tests throughout to develop retrieval and revision skills

Summer 2:  
FDP,  
Sequences and Graphs,  
PAV

Q  
R  
P  
S  
L  
C  
I

**Formal Assessment 3 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Summer 1:  
Measures and Shapes, FDP, Angles, Sequences, Graphs,  
**Multiplicative Reasoning**

C  
C  
T  
A  
T  
C  
I

**Formal Assessment 2 & Feedback**  
Each assessment assesses what has been learnt so far to help identify strengths and areas for development

Spring 1 & 2:  
Number Skills and Properties, Angles, Geometry,  
**Decimals and Equations**

C  
Q  
R  
P  
S  
L

Autumn 2:  
Algebra, Graphs, Decimals, Measures and  
**Fractions**

C  
T  
L  
C  
I  
T

**Introduction to Secondary Maths**

Welcome to KS3 – Your teacher will explain how KS3 works including lesson format, open book assessments, formal assessments, SKO and homework

Autumn 1:  
Number, Analysing and Interpreting Data

C  
C  
T  
Q  
R  
P  
S

Year 7:  
Review and Retrieve through retrieval grids regularly

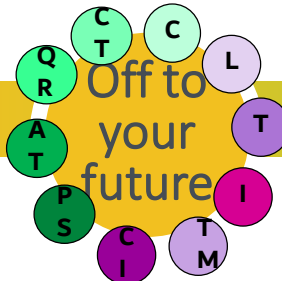
Thinking of studying maths beyond GCSE? Speak to Mr Conway for a transition pack for KS5

EDEXCEL Paper 3  
1 hour 30 mins

EDEXCEL PAPER 2  
1 hour 30 mins

EDEXCEL PAPER 1  
1 hour 30 mins

Intermittent Revision and Exam Technique  
Focused revision after each paper based on what has already been assessed



Exam: Paper 3  
Calculator

REVISION

Exam: Paper 2  
Calculator

REVISION

Exam: Paper 1  
Non Calculator

REVISION

Exams: 3 papers all equal weight



# KS4 Maths Curriculum Map

2-year Curriculum



**Introduction & Reflection**  
Time will be given to reflect on last years work and how improve on the progress made so far

**Mock Exam 1**  
This will take place this term and revision sessions in and out of class will be provided

**Mock Exam 2 and Feedback**  
This will take place early this term and revision sessions in and out of class will be provided. Final opportunity to identify gaps in knowledge

Exams

Autumn 1: Multiplicative Reasoning, Constructions, Loci, Bearings, Stats, Equations and Graphs

Autumn 2: Quadratics, Graphs, PAV2, Circle Theorems, Further Algebra

Spring 1: Fractions, Indices, Standard Index Form, Congruence, Vectors, Proof, Proportion and Graphs

Spring 2: Half termly plans tailored to each class

Summer 1: Individual class plans. Revision and Final Prep

**Past Paper Focus**  
Your teacher will provide you with activities and past papers as you approach your exam

Year 11

Summer 2: RA Triangles, Probability, Further Trig, Similarity and Congruence

**Formal Assessment 2**  
Your teacher will focus on developing exam skills; and provide opportunities for revision and interleaving activities

**Formal Assessment 2**  
Use of full GCSE exam series to identify understanding so far

Summer 1: Transformations, Ratio, Proportion, Multiplicative Reasoning and Probability

**Mock Exam 1 QLA & Feedback**  
Your teacher will deliver lessons to help you to improve following your mock

**Closing the Gap**  
Your teacher will provide opportunities to secure skills and knowledge (identified in Assessment 1)

Spring 2: PAV, Graphs, Transformations, Constructions, Equations and Inequalities

**Formal Assessment 1 Feedback**  
This will help give an understanding of how GCSE exam papers are marked

Spring 1: Equations, Angles, Trig, Graphs and PAV

**Formal Assessment 1**  
Use of full GCSE exam series to identify understanding so far

**Introduction to GCSE**  
Tier explanation, grading, assessment and exam board specification

Autumn 2: Graphs, Percentages, Ratio and Data

Autumn 1: Number and Algebra

Year 10

Topics in **RED** are exclusively for those pupils following the Higher Tier SoW



The Prescott School Subject Overview for

# Maths (Yr. 7)

Head of Department:

Mr J Conway-Williams

Number of lessons per  
fortnight for Key Stage 3: 8

## 1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover maths in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that develop retention skills and build on confidence within specific topic areas in maths. KS3 builds on the skills developed in primary school along with providing an insight into the required skills for Key Stage 4 and GCSEs.

## 2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through retrieval grids, open book unit tests and formal assessments.

Term 1	Analysing and displaying data, Calculations and number skills, Equations, Functions and formulae, Graphing, Decimals, Measures and Fraction skills.
Term 2	Factors and multiples, Fractions, Angles, Exploring 2D and 3D shapes, Decimals, Measures, Further angles, Probability, Equations, Ratio and proportion.
Term 3	Measures, Shape, FDP, More complex angles, Multiplicative reasoning, Sequences, Graphs, FDP, Perimeter, Area, Volume and Transformations.

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

### 3 Recommended texts or websites to support home learning

[www.hegartymaths.com](http://www.hegartymaths.com)

[www.vle.mathswatch.co.uk](http://www.vle.mathswatch.co.uk)

[www.justmaths.co.uk](http://www.justmaths.co.uk)

[www.mathsbot.co.uk](http://www.mathsbot.co.uk)

[www.mathsgenie.co.uk](http://www.mathsgenie.co.uk)

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

### 4 Specialist equipment/materials required if applicable.

Due to the nature of our course being 100% examination, any KS3 maths revision guide or workbook would be useful.

In class we recommend that every pupil has at least a pencil, 15cm ruler, protractor, compass, rubber and several coloured highlighters.

Although a while off yet, at GCSE, two papers will be assessed with a calculator so we recommend that each pupil has a Casio scientific calculator from Year 7. Having this essential piece of equipment will ensure that each pupil has the opportunity to learn how to efficiently use their equipment. This calculator will also be extremely useful in other subject areas such as Science and Geography.

Year 7 will be given a scientific calculator by the school (funding through the pupil premium fund) which is to be used across the subject areas. If the calculator is broken or lost then it needs to be replaced immediately.





The Prescot School Subject Overview for

# Maths (Yr. 8)

Head of Department:

Mr J Conway-Williams

Number of lessons per

fortnight for Key Stage 3: 8

## 1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover maths in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that develop retention skills and build on confidence within specific topic areas in maths. KS3 builds on the skills developed in primary school along with providing an insight into the required skills for Key Stage 4 and GCSEs.

## 2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through retrieval grids, open book unit tests and formal assessments.

Term 1	Number properties, Calculations, Shapes, Measures, Number skills/properties, Area, Volume, Factors, Powers, Statistics, Expressions, Equations, 2D and 3D Geometry and Real life graphs.
Term 2	Decimals, Ratio, Angles, Transformations, FDP, Number properties, Fraction skills, Constructions and Loci.
Term 3	Sequences, Fractions, Further percentages, Graphs, Probability, Scale drawings, Measures, Graphs, Charts and Further statistics.

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

### 3 Recommended texts or websites to support home learning

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[www.justmaths.co.uk](http://www.justmaths.co.uk)

[www.mathsbot.co.uk](http://www.mathsbot.co.uk)

[www.mathsgenie.co.uk](http://www.mathsgenie.co.uk)

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

### 4 Specialist equipment/materials required if applicable.

Due to the nature of our course being 100% examination, any KS3 maths revision guide or workbook would be useful.

In class we recommend that every pupil has at least a pencil, 15cm ruler, protractor, compass, rubber and several coloured highlighters.

Although a while off yet, at GCSE, two papers will be assessed with a calculator so we recommend that each pupil has a Casio scientific calculator from Year 7. Having this essential piece of equipment will ensure that each pupil has the opportunity to learn how to efficiently use their equipment. This calculator will also be extremely useful in other subject areas such as Science and Geography.



The Prescot School Subject Overview for

# Maths (Yr. 9)

Head of Department:

Mr J Conway-Williams

Number of lessons per

fortnight for Key Stage 3: 8

## 1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 3. Alongside this, opportunities will be given to explore and discover maths in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that develop retention skills and build on confidence within specific topic areas in maths. Year 9 is a transition year into GCSE and all the skills developed in Years 7 and 8 will be built on and developed further in order to provide the foundation skills required skills for success in Years 10, 11 and in the GCSE examinations.

## 2 Course/Subject structure

Pupils will explore concepts and master skills in the following topic areas along with opportunities to review and reflect on their learning through retrieval grids, open book unit tests and formal assessments.

<b>Term 1</b>	Number calculations, Sequences, Equations, Indices, Standard form, Expressions, Formulae, Quadratics, Statistics, FDP, Dealing with Data, Multiplicative reasoning, Inequalities, Collecting and analysing data.
<b>Term 2</b>	2D and 3D Geometry, Algebraic and real life graphs, Constructions, Equations, Further inequalities, Proportionality, Multiplicative reasoning, Non-linear graphs, Circles, Pythagoras, Accuracy and Measures.
<b>Term 3</b>	Algebraic and geometric formulae, Probability, Sequences, Graphical solutions, Trigonometry, Polygons, Transformations and Mathematical reasoning.

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

### 3 Recommended texts or websites to support home learning

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### 4 Specialist equipment/materials required if applicable.

Due to the nature of our course being 100% examination, any KS3 maths revision guide or workbook would be useful.

In class we recommend that every pupil has at least a pencil, 15cm ruler, protractor, compass, rubber and several coloured highlighters.

Although a while off yet, at GCSE, two papers will be assessed with a calculator so we recommend that each pupil has a Casio scientific calculator from Year 7. Having this essential piece of equipment will ensure that each pupil has the opportunity to learn how to efficiently use their equipment. This calculator will also be extremely useful in other subject areas such as Science and Geography.





The Prescott School Subject Overview for

# Maths (Yr.10)

Head of Department:

Mr J Conway-Williams

Number of lessons per  
fortnight for KS4: 9

## 1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 4. Alongside this, opportunities will be given to explore and discover maths in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that develop retention skills and build on confidence within specific topic areas in maths. Year 10 is officially the first year of the GCSE course, however, all the skills developed at key stage 3 will be further built on and developed further in order to master the skills required for success in Years 10, 11 and in the GCSE examinations.

## 2 Course/Subject structure

Pupils will further explore concepts and master skills in the following topic areas

<b>Term 1</b>	Number calculations and properties, Algebra, Expressions, Formulae, Tables, Charts, Graphs, Percentages, Interpreting data, Ratio and Proportion.
<b>Term 2</b>	Equations, Inequalities, Angles, Parallel and perpendicular lines, Trigonometry, Perimeter, Area, Volume, Transformations and Constructions.
<b>Term 3</b>	Further transformations, Ratio, Proportion, Multiplicative reasoning, Probability, Right angled triangles, Further trigonometry, Statistics, Similarity and Congruence.

Formal assessments will take place throughout the year and pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. All unit tests and formal assessments follow the format

of the EDEXCEL specification in order for pupils to become familiar with the layout and marking criteria at GCSE level. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

### **3 Recommended texts or websites to support home learning**

[www.hegartymaths.com](http://www.hegartymaths.com)

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[www.mathsbot.co.uk](http://www.mathsbot.co.uk)

[www.mathsgenie.co.uk](http://www.mathsgenie.co.uk)

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

### **4 Specialist equipment/materials required if applicable.**

Due to the nature of our course being 100% examination, any GCSE maths revision guide or workbook that follows the EDEXCEL specification would be useful.

In class we recommend that every pupil has at least a pencil, 15cm ruler, protractor, compass, rubber and several coloured highlighters.

At GCSE, two papers will be assessed with a calculator so we recommend that each pupil has a Casio scientific calculator. Having this essential piece of equipment will ensure that each pupil has the opportunity to learn how to efficiently use their equipment. This calculator will also be extremely useful in other subject areas such as Science and Geography.



The Prescot School Subject Overview for

# Maths (Yr.11)

Head of Department:

Mr J Conway-Williams

Number of lessons per  
fortnight for KS4: 9

## 1 Course/Subject introduction

Throughout the year a series of units are delivered that will develop the skills required for success and progression in Key stage 4. Alongside this, opportunities will be given to explore and discover maths in a variety of ways and activities. All pupils will be regularly given the opportunity to reflect and review on their learning through the use of retrieval activities that develop retention skills and build on confidence within specific topic areas in maths. Year 11 provides the opportunity to refine the skills developed at key stage 3 and in Year 10 to ensure that pupils are able to achieve the best possible outcome in their GCSE maths exam and be fully equipped mathematically for life beyond the Prescot School.

## 2 Course/Subject structure

Pupils will further explore concepts and master skills in the following topic areas

Term 1	Multiplicative reasoning, Constructions, Loci, Bearings, Further statistics, Equations, Graphs, Perimeter, Area, Volume, Algebraic reasoning, Circle theorems and Quadratics.
Term 2 (1 <sup>st</sup> half term)	Fractions, Indices, Standard form, Similarity, Congruence, Vectors and vector geometry, Geometric proof, Proportion and Further graphing.
Term 2 & 3	At this point pupils should have completed the full specification and each class teacher will produce half termly plans based on mock exam analysis specific to each class and pupil. This will include mixed skills lessons, crossover lessons, exam techniques/practice, further topic development, mini group work and one to one intervention.

Formal assessments will take place throughout the year in the form of mock examinations. Pupils will be given opportunities to develop revision skills and exam techniques in order to help build strategies to develop resilience. All unit tests and formal assessments follow the format of the EDEXCEL specification in order for pupils to become familiar with the layout and marking criteria at GCSE level. After each formal assessment all pupils will be given in-depth feedback that celebrates areas of success and help identify areas for future development.

### **3 Recommended texts or websites to support home learning**

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[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

### **4 Specialist equipment/materials required if applicable.**

Due to the nature of our course being 100% examination, any GCSE maths revision guide or workbook that follows the EDEXCEL specification would be useful.

In class we recommend that every pupil has at least a pencil, 15cm ruler, protractor, compass, rubber and several coloured highlighters.

At GCSE, two papers will be assessed with a calculator so we recommend that each pupil has a Casio scientific calculator. Having this essential piece of equipment will ensure that each pupil has the opportunity to learn how to efficiently use their equipment. This calculator will also be extremely useful in other subject areas such as Science and Geography.