

Woodhouse Academy Maths Scheme of learning



"Maths counts!" - Mr Williams

"Without mathematics, there's nothing you can do. Everything around you is mathematics. Everything around you is numbers." - Albert Einstein

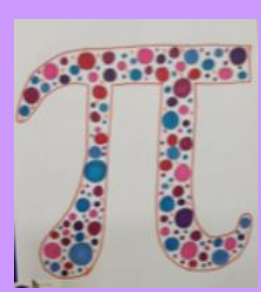


OUR INTENT:

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. The high-quality mathematics education that Woodhouse Academy delivers provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Enrichment in Maths

The Woodhouse Academy maths department strives to make maths fun, interactive and inclusive. We try to ensure that our pupils love maths, regardless of their ability. We follow the national curriculum, but try to deliver tasks and activities that will inspire our pupils to succeed. These may be treasure hunts, code breakers, tt rockstars, catchphrase or the use of activote pods, just to name a few. We have huge maths events throughout the year, our biggest annual event being the promotion of percentages with our Black Friday event. We also celebrate pi day and encourage pupils to get involved with different pi inspired games (we even have a pi art competition!) The department delivers various themed maths lessons such as Halloween, Christmas and charity days as well as promoting STEM activities. For our high achievers, we enter the Junior Maths Challenge each year, which gives our gifted mathematicians in year's 7 and 8 an opportunity to shine and compete against other pupils in the country.



CRIME SCENE DO NOT CROSS

CRIME SCENE INVESTIGATION

Pudsey has been kidnapped! There are 10 suspects that may have taken him.

You have been brought in as a police consultant. You should analyse the evidence provided to eliminate nine of the suspects and get Pudsey to safety, in time for Children in Need.

You must be ready to present your findings by the end of this lesson. Good Luck!



Year 5 Curriculum Plan



Autumn	Spring	Summer
<ul style="list-style-type: none">- Place value- Addition and subtraction- Statistics- Multiplication and division part 1- Perimeter and area	<ul style="list-style-type: none">- Multiplication and division part 2- Fractions- Percentages	<ul style="list-style-type: none">- Decimals- Geometry: Angles- Geometry: Position and direction- Conversions- Geometry: Volume

Click on any of the units of work above and a hyperlink will take you to lessons that will help support each unit. However, here is the link to all the lessons for Year 5:

<https://classroom.thenational.academy/subjects-by-year/year-5/subjects/maths>

Year 6 Curriculum Plan



Autumn	Spring	Summer
<ul style="list-style-type: none">- Place Value- Addition and subtraction- Multiplication and division- Fractions- Geometry: Position and direction	<ul style="list-style-type: none">- Decimals- Percentages- Algebra- Conversions- Geometry: Area, perimeter and volume- Ratio- Statistics	<ul style="list-style-type: none">- Probability- Problem solving- Reasoning- Functional skills- Themed investigations

Click on any of the units of work above and a hyperlink will take you to lessons that will help support each unit. However, here is the link to all the lessons for Year 6:

<https://classroom.thenational.academy/subjects-by-year/year-6/subjects/maths>

Year 7 Curriculum Plan



Autumn	Spring	Summer
<ul style="list-style-type: none">- Sequences- Algebra- Equality and equivalence- Place value- Fractions, decimals and percentages	<ul style="list-style-type: none">- Addition and subtraction- Multiplication and division- Fractions and percentages of amounts- Negative numbers- Addition and subtraction of fractions	<ul style="list-style-type: none">- Constructing and measuring- Geometric reasoning- Developing number sense- Sets and probability- Prime numbers and proof

Click on any of the units of work above and a hyperlink will take you to lessons that will help support each unit. However, here is the link to all the lessons for Year 7:

<https://classroom.thenational.academy/subjects-by-year/year-7/subjects/maths>

Year 8 Curriculum Plan

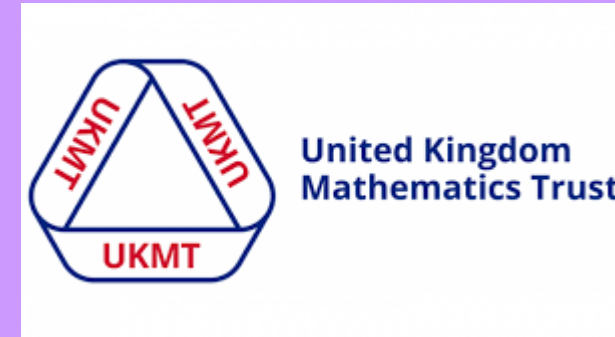


Autumn	Spring	Summer
<ul style="list-style-type: none">- Ratio and scale- Multiplicative change- Multiplying and dividing fractions- Co-ordinates- Representing data- Tables and probability	<ul style="list-style-type: none">- Brackets, equations and inequalities- Sequences- Indices- Fractions and percentages- Standard index form- Number sense	<ul style="list-style-type: none">- Angles in parallel lines and polygons- Area of trapezium and circles- Lines of symmetry and reflection- Data handling cycle- Measures of location

Click on any of the units of work above and a hyperlink will take you to lessons that will help support each unit. However, here is the link to all the lessons for Year 8:

<https://classroom.thenational.academy/subjects-by-year/year-8/subjects/maths>

Scholarly links.....

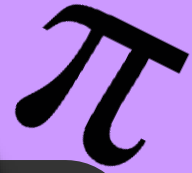


**THIRD SPACE
LEARNING**

Click on any of the links above and a hyperlink will take you to resources that will aim to consolidate and extend learning further....



Mathematics



LEARNING JOURNEY

Year 8



Representations
Working in the Cartesian plane / using $y=mx+c$ / representing data – scatter graphs, lines of best fit, two way tables / Probability

Developing number
Percentages – increase, decrease, multipliers, percentage change, original amounts / Standard index form

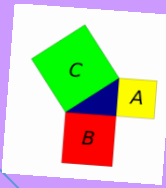
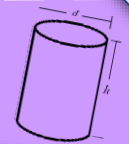
Reasoning with data
The data handling cycle / Averages (Mean (from a table), mode, median, range)

goodbye.

Proportional reasoning
Ratio and scale / using multiplicative change – exchange rates / Multiplying and dividing fractions

Algebraic techniques
Brackets, equations and inequalities / Sequences – 'nth term' / Indices

Developing Geometry
Angles in lines and polygons / Area of trapezia and circles / Line symmetry and reflection



Fractional thinking
Addition and subtraction of fractions and related problems

Applications of number
Solving problems with addition, subtraction, multiplication and division / calculating fractions and percentages of amounts

Algebraic thinking
Sequences / using algebraic notation / solving equations

Year 7

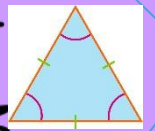
Properties of shapes
Angles in a triangle / quadrilateral / on a straight line / polygons / around a point / nets / shape construction

Reasoning with number
Developing number sense / probability / Prime numbers

Lines and angles
Constructing, measuring and using geometric notation / Developing geometric reasoning

Directed Number (negatives)
Operations and equations with directed number

Place value and Proportion
Place value / ordering integers and decimals / FDP equivalence



Four Rules
Place value / addition, subtraction, multiplication (4 by 2 digit), division (3 by 2) digit / Fractions

Decimals and Percentages
Place value / multiply, divide by 10, 100, 1000 and by integers / Percentages of amounts / FDP conversions

Measurements
Converting units (Mass / Length / Capacity) / Perimeter / Area (Triangles / parallelograms) Volume

Year 6

Statistics
Line graphs / pie charts / averages (mean) / circle properties

Shape
Properties of shapes / angles / transformations (reflection / symmetry / translations) / volume / converting units

Position and Direction
Reflections / Symmetry / Translations / using co ordinates

Algebra
Expressions / substitution / Formulae

Ratio
Language / Fractional link / calculating / proportional reasoning / enlargement



Perimeter and Area
Rectangles / rectilinear shapes / problem solving / calculate unknown lengths

Fractions
Add / subtract / multiply / fractions of amounts / equivalence / simplifying

Addition / Subtraction
Using up to 5 digits / inverse calculations / multi-step problems

welcome

Year 5

Decimals and percentages
Conversions / equivalence / percentages of amounts (multiples of 5 & 10) / adding & subtracting with decimals

Multiplication and Division
X up to 3 by 2 digit / ÷ up to 4 by 1 digit / x & ÷ by 10, 100, 1000
Problem solving / Factors / Multiples / Primes / Squares / cubes

Place Value
Reading / Writing / ordering / Negatives (ordering / adding / subtracting)

Statistics
Bar charts / line graphs / pictograms / tally charts

