

Year 8 - Mathematics

Parental Booklet

2026-27

Welcome to the Maths Department at Cathays High School. In this booklet, you will find key information about what your child is going to be studying in Maths over the year and when their assessments are going to be throughout the year.

Members of the Maths Department:

Miss A Abdoolla - Raising Standards Leader for Mathematics and Numeracy

Mr A Phillips - Area Leader for Mathematics and Numeracy

Ms E Clune-Clarkson - Area Leader for Mathematics and Numeracy

Miss G Murray - Head of Inclusion and Wellbeing/Teacher of Mathematics and Numeracy

Mr S Mrowiec - Teacher of Mathematics and Numeracy

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Ms K Brown - Teacher of Mathematics and Numeracy

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Mr M Hunt - Teacher of Mathematics and Numeracy

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Assessment Dates

Date	Assessment
W/C: 12 th October	Block 1 Assessment - Written
W/C: 30 th November	Block 2 Assessment - MathsWatch
W/C: 1 st February	Block 3 Assessment - Written
W/C: 5 th April	Block 4 Assessment - MathsWatch
W/C: 17 th May	Block 5 Assessment - Written
F/C: 5 th July	Block 6 Assessment - MathsWatch
Throughout the year	Pupils will complete government mandated National Numeracy Tests and a National Reasoning Test.

Homework

Year 8 pupils will be set online homework once per week (every **Friday [8ab]** or **Wednesday [8cd]**) on [MathsWatch](#).

This homework is compulsory and allows pupils to develop their understanding of a range of numeracy topics. Please encourage pupils to achieve the highest percentage possible as this shows whether they are secure in those skills.

Pupils can access the website via google login by using their school emails.

Equipment

Please ensure pupils attend Maths lessons with the following equipment:

- Pen
- Pencil
- Ruler
- Scientific Calculator (see examples below)

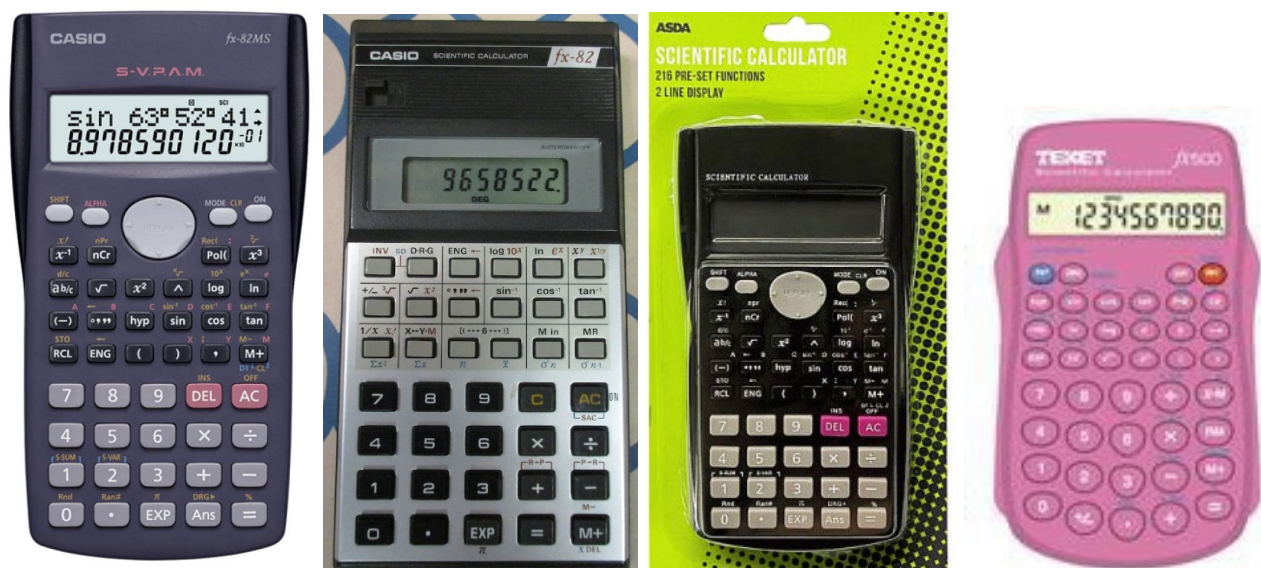
Optional but useful equipment:

- Rubber
- Compass and protractor (Geometry set)

Below are some examples of suitable Scientific Calculators:



Here are some examples of calculators that are not suitable as they are missing some functions:



Curriculum

Throughout Mathematics & Numeracy lessons pupils will focus on developing the five main mathematical proficiencies: Conceptual understanding, communication using symbols, fluency, logical reasoning and strategic competence as well as literacy and digital skills.

Pupils are following a scheme of work which will allow them to develop a passion for Mathematics & Numeracy whilst linking their learning to the real world around them. All lessons will focus on the four main purposes as well the What Matters statements for the Mathematics & Numeracy Area which make reference to number, algebra, geometry and statistics. Pupils will also develop their reasoning and problem-solving skills.

Pupils will be taught a range of topics throughout the year, which are split into the following 6 blocks:

Block 1

- Addition and Subtraction of Decimals (different number of decimal places)
- Multiplication (3-digit by 2-digit and 2-digit by 2-digit)
- Division (3-digit by 1-digit, including carrying and decimal remainders)
- Negative numbers - All four operations
- Indices
- Order of operations

Block 2

- Factors and multiples
- Product of primes
- Highest Common Factor (HCF) and Lowest Common Multiple (LCM)
- Solving linear equations
- Expanding brackets (single)
- Factorising single brackets

Block 3

- Rounding - Significant Figures
- Metric unit conversions
- Simplifying fractions
- Adding and subtracting fractions
- Fraction, decimal and percentage (FDP) equivalences
- Ordering FDP on a number line

Block 4

- Writing expressions
- Understanding of pi and circle vocabulary
- Circle circumference
- Perimeter (compound shapes)
- Area of shapes
- Angle facts - triangles

Block 5

- Angle facts - quadrilaterals
- Percentage of an amount
- Hypothesis and Data Introduction
- Frequency polygons and grouped frequency diagrams
- Drawing straight-line graphs ($x=a$, $y=b$, $y=x$ and $y=mx+c$) and quadratic graphs
- Drawing pie charts

Block 6

- Averages
- Introduction to ratio
- Nets of 3D shapes
- Calculating basic probabilities; probabilities on a number line (probability scale)
- Listing outcomes of multiple events, including sample space diagrams
- Time problems (calendar; knowing key times in a year; 12 to 24 hours, decimal time)

Additional Resources

There are a range of different websites which pupils can use to develop their numeracy skills. Here is a list of some we suggest:

- **MathsWatch** - Provides pupils with videos and accompanying practice questions on a range of different topics
- **CorbettMaths** - Videos and worksheets on every topic in Mathematics
- **BBC Bitesize** - Information sheets with accompanying quizzes to test pupils' understanding on a range of different topics
- **YouTube** - A range of mathematical videos on any topic the pupil chooses to search for