



Edition 7  
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# MATHEMATICS

Curriculum Newsletter

## YEAR 10

$$\frac{a+b}{a} = \frac{a}{b} = 1.618$$

### Contact



Louise Thompson  
WPT Maths Contact  
lthompson  
@cliftonschoo.org

# Curriculum Intent

It is our intention that every student leaves school confident and competent to deal with any mathematical problem they may face in their lives and future careers.

This is achieved through promoting students to; be resilient in their approach, take risks to deepen their knowledge, forge valuable working relationships and take responsibility for and enjoy their learning. We aim to push students to be the best mathematicians by building up their skills base and maximising their attainment and understanding in mathematics at whichever stage that may be.

We ensure a coherent mathematics scheme of work that challenges all students and promotes teaching and learning; this provides students with the knowledge and skills to achieve well academically, and be successful once their education with us ends.

## Year 10 Curriculum

In Year 10, students study 7 key themes. Click the topics below to explore.

### Similarity

Within this unit, students study trigonometry as well as similarity, congruence and enlargement of shapes.

### Developing Algebra

Students study equations, inequalities and how to solve simultaneous equations.

### Geometry

Students study angles, bearings, working with circles and vectors.

### Proportions and Proportional Change

Students study ratio and fractions, percentages and interest, and probability.

### Delving into Data

Students study collecting, representing and interpreting data.

### Using Number

Within this unit, students study types of number and sequences, indices and roots, and non-calculator methods.

### Expressions

Students will learn how to manipulate expressions.

## Assessment Points

Students are assessed at the end of each theme, roughly once per half term. Assessments are written and include fluency, reasoning and problem-solving questions.

## Immerse Yourself

### Maths Watch

- Develop Skills
- Tests and Topics
- Maths Revision at home

### BBC Bitesize GCSE Maths

- Get Revising Quicker!
- Videos and Links
- Study Support and Revision

Students have access to MathsWatch to support their revision which links to the tracker sheets filled in during lessons.

If they are struggling with topics in lessons or want to enhance their learning in the classroom then these clip numbers are an ideal place to cover content at home.

The MathsWatch website has short video clips as well as having links to interactive questions and further worksheets.

## Test Your Knowledge with Quizlet...

Quizlet's Y10 Maths flashcards are a fantastic way to memorise relevant Maths terms to help you with your studies. Click on the icon below to start!



# Praise and Reward

Our rewards system can be broadly split into four categories: classroom level, subject level, school level and privilege rewards. We'll focus on classroom and subject rewards here - for more information about our rewards schemes, please see our website.

## CLASSROOM LEVEL REWARDS

Awarded for: working hard, taking risks and rising to a challenge, making mistakes and learning from them, helping others, and taking pride in the school community.

Rewarded by: praise postcards, positive phone calls to parents/carers, positive text messages home, and lesson based prizes.

## SUBJECT LEVEL REWARDS

Reward scheme: Star of the Week, Curriculum Awards (Subject/School Way, Participation, Working with Pride, Embracing the Whole Curriculum), High Flyer, Extra Mile, Most Improved.

Rewarded by: names displayed on reward boards, certificates, social media posts.

# Broadening Horizons

Our intent is that all students have a full understanding of how to develop themselves as well rounded citizens, maintain healthy relationships and understand how to keep themselves safe both online and in their day-to-day life.

We want all students to know what options are open to them in the future and understand the routes they have in order to progress on their life journey.

Our curriculum will include:

- Exposing learners to worded problem-solving questions based on real life situations
- Tabulating and graphing results in science and geography lessons
- Opportunities throughout the curriculum that expose learners to careers involving mathematical knowledge and skills
- Encouraging participation in maths challenges (such as UKMT and AMSP individual and team events)
- Participation in online lectures and events involving external speakers



## AMSP

The Advanced Mathematics Support Programme is a government-funded initiative. It is led and delivered by MEI, with Tribal as a key partner. It aims to increase participation in Core Maths, AS/A level Mathematics and Further Mathematics, and support improvement in the teaching of these level 3 maths qualifications. Click the logo to find our more.

## BBC Bitesize - Jobs that use Maths

Where could your favourite subject take you? Get inspired by people using Maths in real-life jobs. Find out how much you could get paid for different roles and what qualifications you might need. Click the icon for more information.

The BBC Bitesize logo consists of the letters 'BBC' in a white, bold, sans-serif font inside a white square, with the word 'Bitesize' in a white, sans-serif font below it, all set against a solid orange background.

BBC  
Bitesize

# Careers

Mathematics is a subject that can lead to many fascinating career paths, including those that involve cryptography and data analysis. Cryptography is the science of creating secure communications and is used extensively in fields such as Banking, Cybersecurity, and National Security.

A strong understanding of mathematics is essential for designing and implementing cryptographic algorithms that can protect sensitive information from unauthorized access. Interpreting data is another critical skill that is used in many careers, including data analysis, market research, and social sciences. Click on the image below to find out more.



# The Maths Way

The Maths way is followed and referred to in all lessons. It supports students to become young mathematicians and develop them into thinking and working like mini-mathematicians.

Firstly, to teach students the vital skills they need to achieve their full potential and gain the very best grades they can. Secondly, to teach students how each subject relates to the wider world, incorporating the life skills they will learn.

**THE MATHS WAY**

**WE LOOK FOR MATHS IN THE REAL WORLD**

- We learn from peers & **listen to their explanations**
- We see mistakes as an opportunity **to learn**
- We can think **logically**
- We can search for **patterns in data**
- We persevere & try **different approaches**
- We can identify **relevant information**
- We use our books as a revision guide
- We make **mental estimations to check our answers are reasonable**
- Use this to solve problems
- We show **all our working out**

**SUBJECT WAYS**

Have your say! ✨

At WPT we're always looking for feedback. If you have any thoughts/opinions on this Curriculum Newsletter, its content or the curriculum in general, please click on the title to fill out a short feedback form.