



**Queen Katharine**  
Academy

The Queen Katharine Maths Department  
*For our students we seek to be the best*

# **Mathematics**

# **Department**

**Year 6 Open Evening**  
**September 2018**

## Our Vision:

We in the maths department at the Queen Katharine Academy are **creating a culture of success, positivity and belonging.**

It is our ambition that all our maths students achieve, at each stage the highest possible step on their learning journey here with us. They will have the self-confidence, founded in their learning achievements and new lifelong skills to become good citizens of the world. Our culture of **success, positivity and belonging** will give our students the energy and enthusiasm for the challenges before them. We expect our students to take pride in their success with us and find their maths lessons a lasting inspiration.

**For our students we seek to be the best.**

## Our Mission and Core Purpose:

A successful maths department is measured by the success of its students. Our core purpose is for more of our students to be successful and therefore to achieve our vision.

**Our vision will be achieved through our teaching and learning and the creation of our culture.** Nearly all our interaction with our students is in the classrooms and corridors. That is where we will make our difference and have the most impact.

**Culture:** With behaviour, our culture is vital, so that it doesn't matter what is happening 'out there' once they cross the line and get to maths they feel safe and behave as it is what they are used to.

**Teaching and Learning:** We are committed to developing the quality of our teaching and learning as our core purpose. We will be a source for the promotion of inspirational teaching, problem solving and high-level thinking.

As teachers we will **raise standards, expectations, achievement** and **aspiration** among our students by:

- Offering full access to an exciting, challenging and relevant curriculum
- Challenging and supporting all students to enable them to progress and reach their full potential
- Structure and plan our resources to foster resilience, self-confidence and allow opportunities for our students to become independent and lifelong learners

## KS3 Curriculum – Year 7 to Year 9

The KS3 curriculum aims to build on the solid foundations of the work done in KS2, by developing fluency, reasoning and problem solving skills across the five disciplines of mathematics; number, algebra, ratio and proportion, geometry, and statistics.

Students follow a linear programme of study across years 7-9, which aims to prepare them for the demands and challenges of the GCSE KS4 curriculum and specification. Through developing breadth and depth of topic specific content knowledge and cultivating resilience, students improve their problem solving skills.

The Scheme of Work has been refined to allow students to study topics to a greater level of depth, embedding problem solving at all levels and across all topics. Taking this mastery style approach ensures that all students, regardless of prior attainment, are given opportunities to experience the entire mathematics curriculum and ultimately make progress.

Each week students take part in an RPQ (Retrieval Practice Quiz) lesson, which uses interleaving and spaced retrieval practice to ensure that students continually revisit and revise content studied previously. Research in the field of cognitive science shows that this 'retrieval' is fundamental to the learning process. During these lessons, students reflect on their areas of strength and areas for development, and are actively encouraged to work independently to close any gaps in their knowledge.

It is our hope that every single student at Queen Katharine Academy enjoys their mathematical studies, and that they start KS4 with a solid grounding in basic mathematical skills and the ability to reason and solve problems; skills that are transferrable across the curriculum.

## Key Stage 3 Programme of Study

		Year 7	Year 8	Year 9
Term 1	Term 1a	7.1 Place value, addition and subtraction	8.1 Number	9.1 Graphs and proportion
	Term 1b	7.2 Multiplication and Division	8.2 Algebraic Expressions	9.2 Algebraic expressions
Term 2	Term 2a	7.3 Fractions	8.3 2D Geometry	9.3 2D Geometry
	Term 2b	7.4 Geometry	8.4 Proportional Reasoning	9.4 Equations and inequalities
Term 3	Term 3a	7.5 Algebra	8.5 3D Geometry	9.5 Probability
	Term 3b	7.6 Percentages and Pie Charts	8.6 Statistics	9.6 Statistics

# Frequently asked questions....

## ⇒ How are pupils assigned to their maths class?

At the Queen Katharine Academy students are placed into classes according to their ability. At the start of the academic year students are taught in mixed ability classes, before being set. This allows us to combine KS2 data and information from primary schools with teacher's professional judgements, in order to allocate students to appropriate sets.

## ⇒ Classes are set by ability, but a pupil can move up/down throughout the year, depending on their progress / attainment...

Yes. Students are assessed regularly throughout the year, and will move into a more appropriate set, should the teacher, KS3 coordinator, and Head of department feel that this is in the best interests of the student.

## ⇒ How often do we set homework?

Homework is set once per week by each subject

## ⇒ How many students are there in an average class?

Class sizes vary depending on the cohort and ability level of the class. Classes range from approximately 15 to 27 students.

## ⇒ Does my child need a specific calculator?

Students will require a scientific calculator for their GCSE exams, at the beginning of Year 10. We recommend purchasing a scientific calculator as soon as possible, in order for the students become familiar with how it works. Calculators are available to buy from the school shop.

## ⇒ How often will you test my child?

Formal assessments are set at the end of half each term in maths, and a termly report is sent to the parents, to inform of their child's progress and attitude to learning in each subject.

## ⇒ What if I have further questions?

Please feel free to come and speak to a member of the maths department. We will endeavor to answer any questions you may have. You can also contact a member of our department via email:

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