Subject:	Mathematics Intent:	Our Exam Board is: OCR
Mathematics	The Maths department aims to challenge and inspire students to build logical, independent thinking skills, enabling a strong mathematical foundation to develop for every student, supporting success throughout the curriculum and throughout life.	

The Big Questions…

Year 12	Year 13
The GCSE resit syllabus will be adjusted to include key topics highlighted in the summer GCSE exams. It is likely to include some or all of the following: **September-December:** - How are measurements converted and interpreted while applying the appropriate degree of accuracy? How do you calculate the length of missing sides/size of angles in a right-angled triangle? How do you accurately construct where a tree should be planted, given a set of restrictions you must adhere to? How do speed, distance and time interact with each other? Which is the most appropriate average in certain situation and why? How do you apply the rules of Algebra to manipulate and solve expressions and equations? **January-April:** - What information can you derive from the equation of a straight line? How can formulae be utilised to calculate missing values? How do you find the values of two variables given two different scenarios? How much material is needed to construct a 3D shape? How is the area of a composite shape calculated? How do you apply the properties of angles to solve problems? **May-July:** - What part do graphs play in interpreting and converting two sets of data? How does the probability of an event happening affect the actual outcome? How is the capacity of a 3D shape calculated and how does that link to other similar shapes?	- Students will continue to be prepared for their Maths GCSE in Year 13 if they have not achieved a minimum of a Grade 4 in Year 12. The syllabus will be based on topics highlighted in their summer exam. Year 13 students will follow the same syllabus as Year 12.

What skills will I develop?

In addition to the key Mathematical knowledge that students will work to master, a sound understanding of Mathematics will also develop logical thinking skills that enable the solving of the more complex problems that life throws at us. Mathematics underpins much of the world around us and forms the basis of the knowledge needed to be successful both in education and beyond. Students are coached on techniques to break a problem into smaller more manageable parts and encouraged to transfer the skill they have learnt in the Maths class to other areas of the curriculum.

How will I be assessed?

Students have an opportunity to sit the Mathematics GCSE in both November and June in years 12 and 13 and will be prepared for both each year until they achieve a minimum of a Grade 4. Each set of exams will highlight areas for improvement and these will be used in lessons and by students to improve their progress.

Examination: The end of the GCSE course is 100% exam-based and will involve three GCSE papers, taken at the end of Year 11. All papers are 1hr 30 mins long.

What great resources can I use?

- https://vle.mathswatch.co.uk/vle/ contains teaching videos for every Maths topic with interactive (method and exam) questions. Clip numbers are often provided on revision materials. Marked on-line for instant feedback.
- https://www.mathsgenie.co.uk/gcse.html – selection of past GCSE questions sorted by Maths topic, with worked answers – excellent for final exam preparation.
- https://www.ocr.org.uk/qualifications/gcse/mathematics-j560-from-2015/ - exam board website with the full Mathematics GCSE specification.

Three ways that parents/carers can help…

1. Ensure your child has all the Maths equipment that may be needed at all times. At any point a calculator, ruler, compass, protractor, pencil or rubber could be required in a Maths lessons.
2. Encourage your child to use the websites detailed here and focus their revision on the topics they have identified as needing improvement.
3. Students are encouraged to select areas for improvement following every assessment. Ask your child what topics they have chosen and let them describe what they have done to ensure their understanding has improved. This should involve 'doing' some Maths. Maths revision works best in small chunks of 15-20 minutes.