Maths Curriculum Map

RUSKIN Community High School
Learning Together. Achieving High Standards

Year 8	Summer

What Will Your Child Learn During This Term

Perimeter, area and Volume
- Finding the perimeter of any given shape
- Calculate the area of 2D shapes, such as squares, rectangles, triangles, parallelograms and trapezia
- Finding the area and circumference of a circle
- Solving problems involving compound shapes
- Understanding 3D shapes
- Finding the surface area of different 3D shapes
- Using the formula to derive the volume of 3D shpes
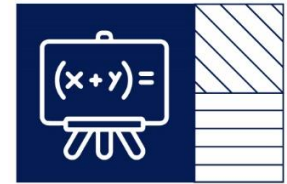
Geometric Properties: Polygons + Testing Conjectures
- Understanding the concept linking to adjacent angles on straight line and around a point
- Deriving information about angles in any triangle and quadrilateral
- Find the sum of angles in any polygon
- Understand the proof and be able to calculate interior angles in any regular polygon
- Understand the proof and be able to calculate the exterior angles of any regular polygon
- Understanding the link between angles between parallel lines that have been intersected
- Using learnt knowledge to solve problems, create proofs and test conjectures

Construction
- Understand bearings the ability to measure and represent them
- Construct a bisector to an angle and a line
- Construct different triangles using a compass
- Understand loci and how it can be used to solve given problems

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Home learning/how parents can help?

Homework

Student are given weekly homework that encourages them to use the knowledge that they have been through in high school and primary school.

This is important as this allows them to retrieve previous learning and helps solidify knowledge in students' long-term memory. Students should know what day their homework will be checked and must have it when they come to that lesson.

MyMaths

All students have access to their individual account on MyMaths: www.mymaths.co.uk

Students are asked to keep their user name and password safe in their planner. They can access different lessons that we are completing in class to enhance their understanding of the learning and knowledge that they have gained.

Schemes Of Work

All students have a scheme of work stuck in their maths books. This is a list of the topics that they will cover during the year. It is a simplified version of the steps they will cover so they can keep a track of what they have completed and what they are yet to learn.

Presentation in Mathematics

In homework and classwork as a department we follow a very strict presentation policy and all students should be aware of it and follow it at all times. Our presentation policy is that all homework and classwork should have the questions, working out and answers. This is an important practice that will enable them to access the most marks in their exams as there is always marks allocated for working out.
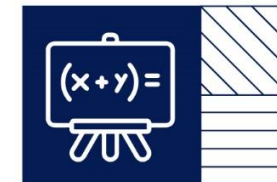
Year 8

Summer

Perimeter, area and Volume
- Find the area of rectilinear shapes by counting squares.
- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
- Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes.
- Estimate volume (for example, using 1 cm³ blocks to build cuboids [including cubes]) and capacity (for example, using water).
- Recognise that shapes with the same areas can have different perimeters and vice versa
- Recognise when it is possible to use formulae for area and volume of shapes
- Calculate the area of parallelograms and triangles
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³).
- Use the properties of a range of polygons to deduce their perimeters
- Derive and use the formula for the area of a trapezium
- Understand that the areas of composite shapes can be found in different ways.

Geometric Properties: Polygons + Testing Conjectures
- Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.

Construction
- Draw 2D shapes using given dimensions and angles.
- Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

MyMaths

All students will have fixed assigned tasks on MyMaths. They should use these assignments to check their prior knowledge. The class teacher will direct the students to which tasks they should complete to improve their prior knowledge.

This is not part of the homework, this is extra work that students should complete to enhance their learning and increase their fluency in maths.
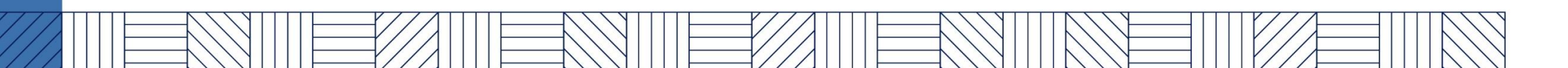
Missed a Lesson

In Key Stage 3 we are using MyMaths lessons and tasks to help students catch up in the case that they have missed a lesson. This helped them to be ready to engage with their next maths lessons and increases their chance to success.

The title of the lesson will be shared by the teacher and they need to find it on MyMaths and complete the lesson to enhance their learning within the classroom. Positive points will be awarded for this as it shows their resilience and high aspirations

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What Is The Prior Learning That Your Child Is Expected To Know

Home learning/how parents can help?

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