SUBJECT: Maths **YEAR:** 7

HEAD OF DEPARTMENT: Mr Hatch

GROUPING POLICY: Students are set by ability

COURSE CONTENT

Curriculum Intent

To develop confident, independent mathematicians who have an appreciation for mathematics in the wider world. We want students to have a creative and ambitious mathematics curriculum, rich in skills, vocabulary and knowledge, which ignites curiosity and makes mathematics relevant to their lives. Our mathematics curriculum will give students the opportunity to:

- Become fluent in the fundamentals of mathematics, giving all students the opportunity to access a wide range of post-16 options
- Pupils develop the problem-solving skills and apply their mathematics to a variety of routine and non-routine problems with increasing sophistication
- Pupils master the relevant number skills which will enable them to access more complex problems in the classroom and in future employment.
- Reason about the proportional nature of many aspects of real-life rates and ratios
- Communicate, justify, argue and prove using mathematical vocabulary
- Work with abstract concepts to propose, test and prove conjectures
- Reason about the properties and sizes of different aspects of shapes
- Develop their character, as part of Rednock's IMATTER program so that they can contribute positively to the life of the school, the local community and the wider environment.

COURSE CONTENT:

KS3 Overview

We follow the White Rose Maths Key Stage 3 curriculum lasting two years and four terms. Year 7 focuses on developing a secure understanding of topics that provide the foundations for many more. Key Stage 3 builds on Key Stage 2 and connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. Challenge and the opportunity to deepen understanding of the key mathematical ideas is provided for all. Mastery is achieved through developing procedural fluency and conceptual understanding in tandem, since each supports the other. Students are encouraged to conjecture, generalise, develop arguments, justification or proof using mathematical language to develop reasoning skills. Problem solving will be developed by exposing students to standard and non-standard problems which increase in complexity in small steps. Students will be exposed to different representations and be able to move freely between them. Opportunities will be given to discuss appropriate methods and strategies to develop fluency. By the time students reach Year 9, the topics are overlapping with some of the GCSE content, and this gives us a good starting point to begin the GCSE course at the end of Year 9.

Year 7 Curriculum

What will my child learn?

The Year 7 scheme of work is a mix of consolidation and thinking deeper about prior learning from Key Stage 2, and introducing new concepts. Prior knowledge of topics will be assessed to ensure that lessons are pitched at a level that enables all students to make progress. Lessons are designed to allow students to understand concepts rather than procedures,

allowing the students to develop alternative approaches to those learnt in Key Stage 2 where necessary. Skills acquired will be interleaved through starters and homework activities. Previous topics will be interwoven into questions within current topics.

What will homework look like?

- Students will have one piece of homework each week. This may be online or a worksheet and will either check prior knowledge or consolidate prior learning.
- Regular practice of their times tables is essential in Year 7.

What enrichment opportunities are available?

UKMT Junior Mathematics Challenge for gifted and talented students.

ASSESSMENT

How will my child's work be assessed?

Students have three formal assessments during the year. In addition to this, there will be regular small assessments at the end of each topic.

ADDITIONAL INFORMATION

How can I support my child in this subject?

- Be positive about learning Mathematics when speaking to your child, whatever your personal experience of Mathematics was.
- Discuss what your child is learning in Mathematics with them.
- Your child should receive homework weekly – please insist that this is completed to a good standard. If you are able to, help your child to complete their homework. If they get stuck, encourage them to contact their teacher, who will be happy to help.
- Look through your child's Mathematics book with them. Ask them to show you work that they are proud of.

How can I support my child in this subject?

The Mathematics Department publishes revision lists for assessments on SatchelOne. Encourage your child to look through these lists carefully and use the recommended websites to assist revision:

- https://corbettmaths.com
- https://nrich.maths.org

The Mathematics Department has a subscription for the following website and your child will be given a username and password to access it:

- https://www.mathspad.co.uk