

**Year 8
Maths**

Introduction and Overview

The aim of the mathematics faculty at Sir John Talbots School is for every pupil to fulfil their mathematical potential. Our team of mathematics specialist strive to achieve this through high quality teaching which equips students with the skills and understanding they will need throughout their education and journey through life. We strive for excellence by teaching and preparing the children to have confidence, to accept and respond to challenges, to have an enduring passion for learning, to develop rigour and perseverance and to become independent thinkers with respect for themselves and others. We pride ourselves on being passionate enthusiastic teachers where our love of learning and mathematics is evident every lesson.

In Year 8, students consolidate and build on skills introduced in Year 7. The focus on securing strong Number skills continues and the Algebraic principles and statistical analysis become more advanced and challenging. Geometry skills will also be extended. We sequence the concepts and methods so that previously learnt ideas can be connected to new learning, supporting students in understanding the coherent and connected nature of the subject, and ensuring they consolidate learning by continually using and applying it in a variety of contexts.

Year 8 consists of 6 different units of study. Students skills will be assessed at the beginning and end of each units, students will have opportunity to reflect on their learning, make improvements and be given targets to work on to improve further. Within each unit students will work mathematically by developing fluency, reasoning and problem solving.

Unit	1	2	3	4	5	6
Content	Number	Algebra	Geometry & Measure	Proportion reasoning	Geometry & measure	Statistics

How to support your child

- ✓ Support with homework and independent study by sitting with students while they complete it, ask them to explain what they are doing and get them to 'teach you' how to do it.
- ✓ Encourage them to attend after school 'Maths Clinic' this is targeted at students who have found a particular topic within lessons difficult.
- ✓ Students need to attend all maths lessons but we understand sometimes absence can't be helped, if work is missed ensure work is caught up on.
- ✓ Use the planner to check homework set, due dates and any other messages. Also use this as a tool to communicate with the teacher.
- ✓ Make sure students have access to mathematical equipment at home.

- Compass
 - Half protractor
 - Casio fx- 83 GT plus (scientific calculator- it is important that students are comfortable and familiar with this calculator)
- ✓ There are plenty of top quality materials around that are completely free. However, there is also lots of other good stuff out there that is pretty reasonably priced. Here's a few resources we recommend:
- Hegartymaths.com
 - Numeracy Workout (Students have a username and password for this)
 - Maths Workout (Students have a username and password for this)
 - Sam Learning (students have a user name and password for this)
- ✓ The internet is a powerful tool, just google topics and you should be able to get access to websites and you tube videos with useful notes and explanations.
- ✓ Finally adopt a CAN DO attitude to maths.
- ✓ Students should be confident with recalling solutions to any of the 1 to 12 multiplication tables. The impact this will have on their mathematical progress is invaluable and students who fall short on this skill can find this subject very difficult to grasp.

Thank you for your support, please do not hesitate to contact the maths team should you have any queries or concerns.

Mrs K Cottrell – Director of Mathematics
 Mrs P Roberts – Assistant head teacher
 Miss R Owens – Teacher of Mathematics
 Mr J Wilford – Teacher of Mathematics
 Miss H Rose – Teacher of Mathematics

Web Links

- ✓ Numeracyworkout.co.uk
- ✓ Mathsworkout.co.uk
- ✓ Hegartymath.com
- ✓ bbc.co.uk/education
- ✓ topmarks.co.uk
- ✓ emaths.co.uk

Additional Reading

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| ✓ How many socks make a pair | Rob Eastaway |
| ✓ The Number Devil | Hans Magnus Enzensberger |
| ✓ Alex's Adventures in Numberland | Alex Bellos |
| ✓ 17 Equations that changed the World | Ian Stewart |
| ✓ How long is a piece of String | Rob Eastaway |
| ✓ Professor Stewart's Cabinet of Mathematical Curiosities | Ian Stewart |