

#### **Subject: Mathematics**

Parents / carers can support their child in improving their learning by accessing the 100% Homework resources and encouraging self-quizzing at home. Regular testing of key concepts, content and vocabulary is proven to improve memory and the ability to recall important knowledge.

#### **Key learning for half term 2:**

	What they need to know	What they should	What resources	How can I help?
		be doing at nome	are available	
Yr 7	Students will revisit learning from half term 1. Topics include:	Students will be set a minimum of one Mathswatch video clip to	Mathswatch website which contains:	Check your child's planner each week to see which Mathswatch clip they
	Place Value – Clip 1 Powers and Roots – Clips, 81 and 29	study each week. They should:	*Tutorial videos	have been set.
	Numerical methods – Clips 17, 18, 19 and 20 Four operations with Fractions – Clips 71, 73,	1) Watch the clip	*Worksheets	Ensure your child logs on to the Mathswatch
	and 74	and make notes in their	*Interactive questions	website each week and studies the clip set by
	*all clips can be found on Mathswatch	homework book	*Revision schedules	their teacher for
Yr 8	Students will revisit learning from half term 1. Topics			homework, making notes
	include:	Complete the questions	*Online homework	and completing the
		on the 'worksheet' (link	tests. These are set at	worksheet questions.
	Solving Equations – Clips 135	at the top of the clip) in	the end of each half	Encourage your child to
	Equation of a straight line – Clip 159	their homework book	term by the class	'get ahead' and watch
	Powers and Roots – Clips 29 and 81		teacher to check that	more videos
	Fractions, Decimals and Percentages – Clip 85		learning from the	independently in addition



Yr 9	Students will revisit learning from half term 1. Topics include:
	Numerical Matheda - Cline 17, 19, 10, 20
	Numerical Methods – Clips 17, 18, 19 20 Place Value – Clip 1
	Ordering Numbers – Clips 2, 3
	Directed Numbers - Clins 23, 68a, 68h
	Factors, Multiples and Primes – Clip 28
	HCF and LCM - Clips 79. 80
	Prime Factor Decomposition – Clip 78
	Venn Diagrams - Clips 127, 185
	Rounding – Clips 31, 32, 90
	Estimation – Clip 91
	Four Operations Fractions - Clips 71, 72, 73, 74
	Algebraic Notation – Clips 7
Yr 10	Students will revisit learning from half term 1. Topics
	include:
	Percentages – Clips 40, 85, 86, 87, 88, 89
	Percentage Change – Clips 108, 109, 110
	Simple Interest – Clip 111
	Compound Interest - Clip 164
	Simultaneous Equations – Clips, 140, 162, 211
	Area and Perimeter - Clips 53, 54, 55, 56
	Circles - Clips 117, 167, 149
	Surface Area - Clip 114
	Volume - Clips 115, 119, 169
	Metric Conversions – Clip 112

to those set, making notes and completing the worksheet questions each time.



	Error Intervals and Bounds – Clips 155, 132, 206		
Yr 11	Students will study the topics listed on the front of their		
	purple homework book. This is a bespoke list for each		
	student based on the grade they are working towards.		

### **Reading:**

Reading is a key driver in the improvement of learning and the ability to recall knowledge. All pupils have the following suggested reading list in their student planners. Please encourage your child to read in order to deepen their knowledge of the subjects they study. All books are available in our school library.

Books suitable for KS3	The Number Devil: A Mathematical Adventure (Hans Magnus Enzensberger)	
	The Curious Incident of the Dog in the Night-time (Mark Haddon)	
	Getting Away with Muderous Math (Kjartan Poskitt)	
	The Boy Who Loved Math: The Improbable Life of Paul Erdos, (Deborah Heiligman)	
	1089 and All That: A Journey into Mathematics (David Acheson)	
Books suitable for KS3 & KS4	S3 & KS4 The Code Book (Simon Singh)	
	The Simpsons and their Mathematical Secrets (Simon Singh)	
Books suitable for KS4	A Beautiful Mind ( <u>Sylvia Nasar</u> )	
	Infinity: Beyond the Beyond the Beyond (Lillian R. Lieber)	
	The Einstein Theory of Relativity: A Trip to the Fourth Dimension (Lillian R. Lieber)	
	The Joy of x: A Guided Tour of Math, from One to Infinity ( <u>Steven Strogatz</u> )	
	Fermat's Last Theorem, (Simon Singh)	



"Books expose children to more facts and to a broader vocabulary than virtually any other activity, and persuasive data indicate that people who read for pleasure enjoy cognitive benefits throughout their lifetime" — Daniel T. Willingham