Home-School Learning Collaboration – Mathematics

Topics in this cycle:	Taught: Spring 1	Year Group: 9

Key knowledge/concepts to be learnt ('Tell me about....')	Websites/blogs/YouTube links and further reading to deepen and consolidate learning
Numbers • Understand and use surds • HCF and LCM • Fraction calculations • Number problems **Using percentages** • Percentage increase and decrease • Change as a percentage • Reverse percentage problems • Percentage problems • Repeated percentage change **Maths & money** • Bills and bank statements • Interest • VAT • Wages and taxes • Exchange rates • Solving money problems	https://vimeo.com/491143049 https://vimeo.com/491143221 https://vimeo.com/490424468 https://vimeo.com/499302528 https://vimeo.com/499302899 https://vimeo.com/499303280 https://vimeo.com/499304687 https://vimeo.com/502961994 https://vimeo.com/502718231 https://vimeo.com/505611700 https://vimeo.com/505612625

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Key Vocabulary and Definitions To Be Learnt		What Will The Assessment Look Like?
Profit	A positive difference between final and original amounts	
Loss	A negative difference between final and original amounts	
Reverse	The process of finding original amount, going back to what it was at the start	
Increase	Growth in value	
Decrease	Fall in value	
Depreciate	Other word for decrease	
VAT	Value Added Tax	
Tax	Money that the government collects based on income, sales, and other activities	
Interest	How much is paid for the use of money	
		Family Learning Opportunities

		Support your child at completing their homework and to boost SparxMaths XP level.
		
		Consider the following discussion points:
		Numbers:
		• **Understand and use surds**
		  Are surds rational or irrational?
		  What types of factors do you look for when simplifying a surd? Why?
		  Are all square roots surds? Why or why not?
		Using percentages:

		• **Repeated percentage change:** Explain why increasing a number by a percentage and then decreasing the answer by the same percentage does not get you back to amount you started with? What is a quick way of multiplying by the same number twice? Three times? **More:** You may look at this video to understand better what TAX is: https://youtu.be/6jveUGpJWiU?si=Eln5BuOAVZejMLeP Try these questions on simplifying surds: https://minimallydifferent.com/2018/05/25/simplifying-surds-2/