

Year: 8

Subject: Mathematics

Autumn Term		
Overarching Topic:		
What has come before and what comes later:	Year 7 covers the topics of algebraic thinking, place value and proportion, applications of number, directed number, fractional thinking, lines and angles and reasoning with number. Following this will be algebraic techniques and developing number.	
	Foundation	Higher
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	<p>Can you explain where ratios are used in real life? What is a general method in order to simplify a ratio? Can you share an amount into a given ratio e.g How do I share £300 in the ratio 5:1? Are you able to label key parts of the circle e.g diameter, radius? What is the formula to calculate circumference of a circle? What is meant by the numerator and denominator of a fraction? What is the method in order to multiply fractions? What is the method in order to divide fractions? Can you give an example of a 'top-heavy' fraction? Can you give any synonyms for multiplication and division? How would you plot an (x,y) co-ordinate on a set of X,Y axes? What is the general equation of a line parallel to the y-axis? What is the general equation of a line parallel to the x-axis? What is equation of a vertical line with an intercept of 3 on the x axis? What is the equation of a horizontal line with an intercept of -1 on the y axis? What does correlation describe any why would we use it? What are the 3 types of correlation? Can you give an example of 2 variables which would have a different type of correlation? What would be the list of outcomes of rolling a die? How can we represent outcomes of 1 or 2 events?</p>	<p>Can you explain where ratios are used in real life? What is a general method in order to simplify a ratio? Can you share an amount into a given ratio e.g How do I share £300 in the ratio 5:1? How are ratios manipulated in order to compare their size? Are you able to label key parts of the circle e.g diameter, radius? What is the formula to calculate circumference of a circle? What is the method in order to multiply fractions? What is the method in order to divide fractions? Why is understanding inverse operations important for division of fractions? How would you plot an (x,y) co-ordinate on a set of X,Y axes? What is the general equation of a line parallel to the y-axis? What is the general equation of a line parallel to the x-axis? What is equation of a vertical line with an intercept of 3 on the x axis? What is the equation of a horizontal line with an intercept of -1 on the y axis? What is the general equation of a straight line? How would you find the midpoint of a line? What does correlation describe any why would we use it? What are the 3 types of correlation? Can you give an example of 2 variables which would have a different type of correlation? How would you describe the strength of the correlation? What would be the list of outcomes of rolling a die? How can we represent outcomes of 1 or 2 events?</p>