Foxford Learning Plan

YEAR 11 Foundation

Ratio & proportion
Probability
Straight line graphs

Key Vocabulary

Ratio	The quantitative relation between two amounts
Simplify (ratio)	To divide all of the numbers in the ratio by the same number until they have no common factors other than 1 (and are whole numbers)
Direct proportion	Two quantities increase or decrease at the same rate
Indirect proportion	An increase in one quantity leads to a decrease in the other
Theoretical probability	Probability that is determined on the basis of reasoning
Experimental probability	Probability that is determined on the basis of the results of an experiment repeated many times
Linear Equation	The highest power of the variable is 1
Gradient	The steepness of a line or slope
Linear graph	Straight line graph from a linear equation
Intercept	The point at which the line crosses the axes

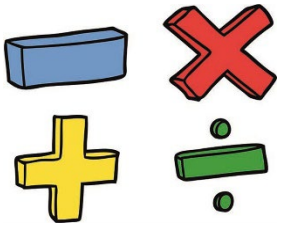
Key Skills

Over the course of the topic, I will be able to: -

Write ratios in their simplest form, and in the form 1:n or n:1.
Share a quantity in a given ratio including three-part ratios.
Solve a ratio problem in context.
Write a ratio as a fraction.
Solve word problems involving direct and indirect proportion
Solve proportion problems using the unitary method, work out which product is the better buy, scale up recipes, and convert between currencies.

Mark probabilities on a probability scale of 0 to 1 and write probabilities in words or fractions, decimals and percentages.
Find the probability of an event happening using theoretical probability or relative frequency, including outcomes using dice, spinners, coins.
Use 1 – *p* as the probability of an event not occurring where *p* is the probability of the event occurring.
Use and draw sample space diagrams.
Work out probabilities from venn diagrams, and use union and intersection notation.
Use tree diagrams to calculate probability for two independent or dependent events.

Plot coordinates in all four quadrants and find the midpoint of a line.
Recognise and draw the graphs of linear equations.
Work out the gradient of a linear graph and its equation in the form y = mx + c.
Calculate parallel and perpendicular gradients.
Draw and interpret real-life graphs.



I will Understand

1. How to simplify and share into a given ratio.
2. How to solve contextual problems involving ratio and proportion.
3. How to calculate theoretical and experimental probabilities and represent outcomes on diagrams.
4. How to calculate the gradient and equation of a straight line in the form y=mx + c.
5. How to draw and interpret straight line graphs of real-life situations.