Lode Heath School

Mathematics Department

Year 10 Foundation

Assignment Title	Unit 4: Probability	Set	Spring

Summary of Unit 4	Key Words
Calculate probabilities for mutually exclusive and exhaustive events. Use two way tables, Venn diagrams, frequency trees and tree diagrams to work out probability.	Probability, dependent, independent, conditional, tree diagrams, sample space, outcomes, theoretical, relative frequency, fairness, experimental.

Prior Knowledge:

Calculate:

1) 0.5 x 0.4

2) $\frac{2}{3} + \frac{4}{5}$

3) 0.26 + 0.43

4) $\frac{1}{5} \times \frac{4}{7}$

5) What is 5 as a percentage of 20?

6) When rolling a dice what is the probability of it landing on a 5?

LEARNING JOURNEY

Level	Task Description

2	**4.1 Calculating probability**
	    Calculate simple probabilities from equally likely events.
	    Understand mutually exclusive and exhaustive outcomes.

2-3	**4.2 Two events**
	    Use two-way tables to record the outcomes from two events.
	    Work out probabilities from sample space diagrams.

3	**4.3 Experimental probability**
	    Find and interpret probabilities based on experimental data.
	    Make predictions from experimental data.

3	**4.4 Venn diagrams**
	    Use Venn diagrams to work out probabilities.
	    Understand the language of sets and Venn diagrams.

4-5	**4.5 Tree diagrams**
	    Use frequency trees and tree diagrams.
	    Work out probabilities using tree diagrams.
	    Understand independent events.

4-5	**4.6 More tree diagrams**
	    Understand when events are not independent.
	    Solve probability problems involving events that are not independent.

Assignment Title	Unit 5: Ratio and proportion	Set	Spring

Summary of Unit 5	Key Words
Be able to use ratios and proportion to solve a wide range of problems.	Ratio, proportion, share, parts, fraction, function, direct proportion, inverse proportion, graphical, linear, compare.

Prior Knowledge:

1) Find the HCF of 20 and 35

2) How many mm is 22cm?

3) What is 2^3?

4) How many grams in 4kg?

5) Simplify the ratio 35:49

LEARNING JOURNEY

Level	Task Description
1-2	**5.1 Writing ratios** Use ratio notation. Write a ratio in its simplest form. Solve problems using ratios.
2-3	**5.2 Using ratios 1** Solve simple problems using ratios.
2-3	**5.3 Ratios and measures** Use ratios to convert between units. Write and use ratios for shapes and their enlargements.
2-4	**5.4 Using ratios 2** Divide a quantity into 2 parts in a given ratio. Divide a quantity into 3 parts in a given ratio. Solve word problems using ratios.
2-4	**5.5 Comparing using ratios** Use ratios involving decimals. Compare ratios. Solve ratio and proportion problems.
3-5	**5.6 Using proportion** Use the unitary method to solve proportion problems. Solve proportion problems in words. Work out which product is better value for money.
4-5	**5.7 Proportion and graphs** Recognise and use direct proportion on a graph. Understand the link between the unit ratio and the gradient.
4-5	**5.8 Proportion problems** Recognise different types of proportion.

| | | Solve word problems involving direct and inverse proportion. |