

Year 9 Term 3

Learning Aim	Developing	Securing	Mastering												
Number: Percentage & ratio	Percentage of amounts, increase & decrease using a multiplier. Share ratio into a given quantity inc. (more/less) Solve simple proportion problems	Percentage change, compound and reverse Solve linear problems involving direct & inverse proportion Interchange between fractions and ratio & applying methods to problems	Functional skill & more complex multistep that mix percentages, fractions and ratio Direct/inverse proportion inc. graphical and algebraic representations												
Examples	Peter and Jane share sweets in the ratio of 3:7, Jane gets 24 more sweets than Peter, how many sweets do they share?	The cost of a pair of jeans that has been reduced by 15% in the sale is £55.25. What was the original price of the jeans	420 pupils are surveyed. 35% catch the bus to school, 1/5 ride a bike. The rest either walk or go by car in the ratio of 5:4. How many pupils walk to school												
Probability	Understand probabilities of all possible outcomes sum to 1. List outcomes Use sample space diagrams & two way tables	Organise sets in to venn diagrams and complete tree diagrams to answer probability questions. Calculate relative frequency	Understand venn notation for probability I can draw tree diagrams r.												
Examples	Two dice are thrown, what is the probability the combined sum is a multiple of three	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Colour</th> <th>pink</th> <th>red</th> <th>blue</th> <th>yellow</th> <th>white</th> </tr> </thead> <tbody> <tr> <td>Probability</td> <td>0.15</td> <td>0.25</td> <td>0.20</td> <td>0.16</td> <td></td> </tr> </tbody> </table> <p>The table shows the probability of a seed growing in to a particular colour. Work out the probability of picking a seed that flowers white If there are 300 seeds in a pack estimate how many will flower red.</p>	Colour	pink	red	blue	yellow	white	Probability	0.15	0.25	0.20	0.16		There are 5 red pens, 3 blue pens and 2 green pens in a box. A pen is taken from random, put back, and then a second pen is taken. Work out the probability the two pens were of the same colour
Colour	pink	red	blue	yellow	white										
Probability	0.15	0.25	0.20	0.16											

Extension opportunities

Two step percentage questions
Non-replacement tree diagrams

You can find practice on all the topics taught this term at Mathsworkout.co.uk.

Login: sarum. Password: solid92

Go to Number; section 17,18 & 19. Stats & Probability; 9,10 & 16
Choosing the right level of difficulty for you within each topic area.