

# Year 11 Statistics Learning Journey

## Unit 6 – Probability

Core knowledge	Reference number	
The meaning of probability – ‘What is the difference between very unlikely and unlikely?’		
Experimental Probability - ‘Why might you need many trials before determining bias?’		
Using probability to assess risk – ‘Why do insurance companies use relative risk instead of absolute risk to determine policy prices?’		
Sample Space Diagrams - ‘How does this help us to visualise all possible outcomes?’		
Venn Diagrams – ‘Draw a Venn diagram for 3 overlapping variables, A,B and C’		
Mutually Exclusive and Exhaustive Events – ‘Why do we say ‘or’ when describing mutually exclusive events?’		
The General Addition Law – ‘Describe the difference between the intersection and the union’		
Independent Events - ‘Write the multiplication law for independent events’		
Tree Diagrams - ‘How does this differ from a sample space diagram?’		
Conditional Probability - ‘What is meant by the probability of B given A?’		
The Formula for Conditional Probability – ‘Write the formula for the conditional probability of B given A’		
LC Title	Completed	Dirt
Unit 6 LC – Probability		
<p><b>Key Vocabulary</b></p> <p><b>Probability scale</b> – Consists of the following categories – Impossible, very unlikely, unlikely, evens, likely, very likely and certain.</p> <p><b>Trial</b> – Each experiment (or response to a survey) is called a trial.</p> <p><b>Estimated Probability</b> – Number of trials with successful outcome/Total number of trials.</p> <p><b>Relative Risk</b> – This is how many times more likely an event is to happen for one group compared to another group.</p> <p><b>Absolute Risk</b> – This is the probability of an event happening.</p> <p><b>Sample Space</b> – A diagram to represent all the different outcomes possible for up to three events.</p> <p><b>Venn Diagram</b> – A Venn diagram uses overlapping circles to represent data, each region explains a different set of data.</p> <p><b>Mutually Exclusive</b> – Events are mutually exclusive if they cannot occur at the same time.</p> <p><b>Exhaustive</b> – A set of events is exhaustive if the set contains all possible outcomes.</p> <p><b>Independent</b> – Two events are independent if the outcome of one event doesn’t affect the outcome of another.</p> <p><b>Conditional</b> – Two events are conditional if the outcome of one event does affect the outcome of another.</p>		

