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**Mathematics Faculty**

**Year 10 Unit 10 Overview**

**Probability**

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| **Topic** | **Key Ideas** | **Progress** | | |
| **R** | **A** | **G** |
| **Probability** | I can identify and calculate the probability of mutually exclusive outcomes |  |  |  |
| I can calculate the probability of events not occurring |  |  |  |
| I can use sample space diagrams |  |  |  |
| I can calculate expected outcomes |  |  |  |
| I can use frequency trees |  |  |  |
| I can use the AND/OR rules |  |  |  |
| I can construct and use tree diagrams for independent and conditional events |  |  |  |
| I can use set notation |  |  |  |
| I can calculate probabilities from Venn diagrams |  |  |  |

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| **Lesson** | **Learning Focus** | **Assessment** | **Key Words** |
| **1** | Identifying and calculating the probability of mutually exclusive outcomes and events. Finding the probability of events not happening.  (CM clip 250) | Formative assessment strategies e.g. MWBs, whole class questioning, Diagnostic Questions, SLOP time with self-assessment, Live Marking etc.  Assessment is also supported with our use of ILOs which alternate between Basic Skills Checks one week and then a more individual ILO the following set through Century and Corbettmaths.  Finally every unit is assessed half termly as part of our Assessment Calendar in Mathematics. | mutually exclusive, exhaustive, probability, outcome, event |
| **2** | Listing all the possible outcomes of two events in a sample space diagram. Calculating the probability of events occurring from a sample diagram.  (CM clip 246) | sample space, outcome, event, probability |
| **3** | Working out the expected results for experimental and theoretical probabilities. Comparing real results with theoretical expected values to see if a game is fair. | theoretical, experimental, probability, outcome, expectation, bias, reliability |
| **4** | Constructing and interpreting frequency trees.  (CM clip 376) | probability, frequency |
| **5** | Recognising whether two events are independent. **Using the AND/OR rules to calculate probabilities.**  (CM clip 244) | probability, independent, or, and, both |
| **6** | **Constructing and using tree diagrams for independent events.**  (CM clip 252) | probability, tree, independent, and, or |
| **7** | Constructing and using tree diagrams to calculate conditional probability.  (CM clip 252) | probability, tree, conditional, and, or |
| **8** | **Using set notation.**  (CM clip 379) | set notation, Venn diagram, element, union, intersection, complement |
| **9** | **Using Venn diagrams to calculate probability.**  (CM clip 380) | Venn diagram, union, intersection, element, probability |