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| **H Unit 10: Probability** | **Road Map** | | | | | |
| In this unit you will learn about probability. The aims are as follows:  **LG1**: Knowledge  **LG2**: Application  **LG3**: Skills | Assessment Grades |  |  | | | |
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| **Themes** | **Learning Goals/Outcomes/Content** | | |  |  |  |
| 10 Probability | Write probabilities using fractions, percentages or decimals; | | |  |  |  |
| Understand and use experimental and theoretical measures of probability, including relative frequency to include outcomes using dice, spinners, coins, etc; | | |  |  |  |
| Estimate the number of times an event will occur, given the probability and the number of trials; | | |  |  |  |
| Find the probability of successive events, such as several throws of a single dice; | | |  |  |  |
| List all outcomes for single events, and combined events, systematically; | | |  |  |  |
| Draw sample space diagrams and use them for adding simple probabilities; | | |  |  |  |
| Know that the sum of the probabilities of all outcomes is 1; | | |  |  |  |
| Use 1 – *p* as the probability of an event not occurring where *p* is the probability of the event occurring; | | |  |  |  |
| Work out probabilities from Venn diagrams to represent real-life situations and also ‘abstract’ sets of numbers/values; | | |  |  |  |
| Use union and intersection notation; | | |  |  |  |
| Find a missing probability from a list or two-way table, including algebraic terms; | | |  |  |  |
| Understand conditional probabilities and decide if two events are independent; | | |  |  |  |
| Draw a probability tree diagram based on given information, and use this to find probability and expected number of outcome; | | |  |  |  |
| Understand selection with or without replacement; | | |  |  |  |
| Calculate the probability of independent and dependent combined events; | | |  |  |  |
| Use a two-way table to calculate conditional probability; | | |  |  |  |
| Use a tree diagram to calculate conditional probability; | | |  |  |  |
| Use a Venn diagram to calculate conditional probability; | | |  |  |  |
| Compare experimental data and theoretical probabilities; | | |  |  |  |
| Compare relative frequencies from samples of different sizes. | | |  |  |  |

**Links:**

LG1: You will calculate probabilities, list outcomes and complete venn diagrams, tree diagrams and 2-way tables.

LG2: You will apply your knowledge of probability to compare theoretical and experimental probabilities and draw conclusions about bias.

LG3: You will solve problems that combine knowledge and skills from this topic with other topics, solving tree diagram problems that require the use of algebra.