Statistics and Probability Foundation & Year 1

**General Capabilities**

**CHANCE**

- Identify patterns of familiar events involving chance and describe them using everyday language such as ‘will happen’, ‘won’t happen’ or ‘might happen’.
- Comparing a list of everyday events according to how likely they are to happen, using the language of chance and explaining reasoning.
- Choosing simple questions and gather responses.
- Conducting repeated trials of chance experiments such as tossing a coin or drawing a ball from a bag and identifying the variations between trials.

**PROFICIENCY STRANDS**

**Understanding**
Students build a set of knowledge of algorithms and translate mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the ‘why’ and the ‘how’ of mathematics. Students build understanding when they connect related ideas, when they describe two-dimensional shapes and three-dimensional objects. Students describe sequences resulting from skip counting by 2s, 5s and 10s. They identify practical activities and everyday events that involve chance. Describe outcomes as ‘likely’ or ‘unlikely’ and identify events as ‘certain’ or ‘impossible’.

**Fluency**
Students develop skills in choosing appropriate procedures, carrying out procedures fluently, accurately and efficiently, and extending fluent knowledge and concepts. Students analyse when they calculate answers efficiently, when they recognise visual ways of answering questions, when they choose appropriate methods and algorithms, when they recall definitions and properties and facts, and when they can manipulate expressions and equations to find solutions.

**Problem Solving**
Students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively. Students formulate and solve problems when they use mathematics to represent unfamiliar or meaningful situations, when they design investigations and plan their approaches, when they apply existing strategies to seek solutions, and when they verify that their answers are reasonable.

**Reasoning**
Students develop an increasingly sophisticated capacity for logical thought and action, such as analysing, planning, monitoring, evaluating, interpreting, justifying and generalising. Students are reasoning mathematically when they explore the ‘why’ of mathematics, when they deduce and justify strategies used and conclusions reached, when they adopt ‘the learner is the unknown’, and when they explain and justify strategies they used to determine the correct answer, when they predict that something is true or false and when they compare and contrast related ideas and explain their choices.

**Year One Achievement Standard**
By the end of Year 1, students describe number sequences resulting from skip counting by 2s, 5s and 10s. They identify representations of ones only. They recognise Australian coins according to their value. Students tell time to the half hour. They describe two-dimensional shapes and three-dimensional objects. Students describe data displays.

Students count to and from 100 and locate numbers on a number line. They carry out simple additions and subtractions using counting strategies. They partition numbers using simple patterns involving numbers and objects. They sequence numbers using place value. They continue simple patterns involving numbers and objects. Students understand concepts related to lengths and capacities using informal units. They tell time to the half hour. They use the language of direction to move from place to place. Students classify outcomes of simple familiar events. They collect data by asking questions and draw simple data displays.