



Using Maths Aotearoa and Wilkie Way to deliver the refreshed New Zealand Curriculum

Maths Aotearoa Book 4B provides a range of learning opportunities building onto knowledge and concepts developed in year 7. These learning opportunities enable students to achieve the outcomes expected in year 8. The teacher book also provides links to further learning opportunities in the MOE Figure it Out series available in all schools. Probability investigations and learning experiences occur in situations across the curriculum. The language of chance is often used in everyday speech without the preciseness of meaning as in a probability investigative situation.

Maths Aotearoa teacher books and student books are available from edify.co.nz

Wilkie Way members also have access to Professional Resources on the teaching of statistical thinking

Phase 3: Year 8

Understand: (big ideas)	Do (practices)
<p>As students build knowledge through their use of the mathematical and statistical processes, they begin to understand:</p> <ul style="list-style-type: none"> • Patterns and variation • Logic and reasoning • Visualisation and application 	<p>Students will have learning opportunities to:</p> <ul style="list-style-type: none"> • Investigate situations • Represent situations • Connect situations • Generalise findings • Explain and justify findings

Know: Context of Probability

Probability Investigations	Critical thinking in probability
<p>Plan and conduct probability experiments for chance based situations, including undertaking a large number of trials using digital tools by:</p> <ul style="list-style-type: none"> • posing an investigative question • anticipating what outcomes are possible and which of them are more or less likely to occur • identifying and systematically listing possible answers to the investigative question • collecting and recording data • creating data visualisations for the distribution of observed outcomes and for all possible outcomes for theoretical probability models where they exist. • describing what these visualisations show • finding the probability estimates for the different outcomes • proposing possible theoretical outcomes and associated probabilities, for situations where no theoretical model exists • answering the investigative question • identifying similarities and differences between their findings and those of others • reflecting on anticipated outcomes • identifying similarities and differences between findings from the probability experiment and associated theoretical probabilities, as appropriate. 	<p>Identify, explain, and check others' statements about chance-based investigations, referring to evidence.</p>

Maths Literacy Development

- Confidently use specialist vocabulary associated with probability - see vocabulary list in the curriculum document
- Confidently read & understand math texts.
- Confidently create and interpreting a wide variety of visual displays

Concepts being developed	Key knowledge being developed
<ul style="list-style-type: none"> • Statistical inquiry cycle • Proportional thinking • Theoretical models for probability 	<ul style="list-style-type: none"> • Use appropriate data collection tools • Use equivalent fractions • Use percentages
Maths Aotearoa Book 4B	Support Material available from Wilkie Way website wilkieWAY.co.nz: membership area (subscription)
Unit 8: Statistics and Probability	Teacher Professional Resources: Curriculum Knowledge: Statistics Pocket Guide: Further Developing Statistical Thinking Moderation Statistical Thinking Progressions Signposts 3 - 6
Chapter 24 Probability <ul style="list-style-type: none"> • Plan conduct and systematically record data from probability experiments • Use fractions and percentages to describe frequency • Make predictions based on expected outcomes • Recognise variance between experimental results and models of expected outcomes 	