



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

Maths Aotearoa teacher book 1B is set out in 4 units providing a sequenced approach to developing key number knowledge, skills and concepts. Statistics and probability can be found in Unit 1 in the Book 1B. It builds on from year 1 as students can begin to learn about collecting data for a specific purpose; to answer a question or prove an assertion. The probability for year 2 extends the introduction of the language of chance from year 1 and the same activities as given in Book 1A can be used to identify possible outcomes and notice variations in outcomes.

*Maths Aotearoa teacher books and activity cards are available from [edify.co.nz](http://edify.co.nz)*

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

### Phase 1: Year 2

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"> <li>• Patterns and variation</li> <li>• Logic and reasoning</li> <li>• Visualisation and application</li> </ul>	<p>Students will have learning opportunities, and be guided to:</p> <ul style="list-style-type: none"> <li>• Investigate situations</li> <li>• Represent situations</li> <li>• Connect situations</li> <li>• Generalise findings</li> <li>• Explain and justify findings</li> </ul>

### Know: Context of Statistics and Probability

Statistics	Probability
<p><b>Problem:</b> Pose a summary investigative question about a group for which the data will have categorical variables. and anticipate what the data might show.</p> <p><b>Plan:</b> Plan survey and data collection questions for collecting data, identify who and what the data will measure, and discuss how the data gathering process might affect people.</p> <p><b>Data:</b> Collect categorical data for more than one variable</p> <p><b>Analysis:</b> Create &amp; make statements about data visualisations (Pictures, graphs dot plots) for the categorical data, comparing the frequencies of categories.</p> <p><b>Conclusion:</b> Choose from given options the statements that best answer the investigative question.</p> <p><b>Statistical literacy:</b> Match statements made by others with features in simple data visualisations and agree or disagree with statements.</p>	<p>Engage in chance based investigations about games and everyday situations to:</p> <ul style="list-style-type: none"> <li>• anticipate and identify possible outcomes</li> <li>• collect &amp; record data</li> <li>• Create data visualisations for frequencies of possible outcomes</li> <li>• describe what these visualisations show</li> <li>• answer the investigative question notice variation in outcomes</li> </ul> <p>Agree or disagree with the statements made by others</p>

### Maths Literacy Development

- Assistance with using the language of chance -See vocabulary list in curriculum document
- Assistance with using the language of number comparison
- Assistance with creating and interpreting visual displays

Concepts being developed	Key knowledge being developed
<ul style="list-style-type: none"> <li>• Additive comparison</li> <li>• Equality</li> <li>• Variation and chance</li> <li>• Statistical inquiry cycle</li> <li>• Prediction</li> <li>• Estimation</li> </ul>	<ul style="list-style-type: none"> <li>• Ask questions - How many? How many more/less?</li> <li>• Make assertions</li> <li>• More/Less</li> <li>• Most/Least</li> </ul>

## Maths Aotearoa Book 1B

### Unit 1: Understanding Addition and Subtraction

Support Material available from Wilkie Way website [wilkieWAY.co.nz](http://wilkieWAY.co.nz): membership area (subscription)

#### Element 5 Exploring Statistics and Probability

With teacher assistance:

- Pose a question or assertion
- Decide the data to be collected
- Collect the data
- Use tally marks as a data collection tool
- Display the data in a pictograph or bar chart
- Answer questions based on the data
- Draw conclusions around the question asked or assertion made
- Identify possible outcomes and notice variations in outcomes

#### Maths Aotearoa Activity Cards

Activity Cards 26 - 28

**BLM 7 - 11**

#### Teacher Professional Resources

Curriculum Knowledge

**Statistics**

Pocket Guide: Beginning Statistical Thinking