

## Achievement Standard

<b>Subject Reference</b>	Mathematics and Statistics 1.1		
<b>Title</b>	Explore data using a statistical enquiry process		
<b>Level</b>	1	<b>Credits</b>	5
		<b>Assessment</b>	Internal
<b>Subfield</b>	Mathematics		
<b>Domain</b>	Mathematical Studies		
<b>Status</b>	Approved	<b>Status date</b>	December 2023
<b>Planned review date</b>	December 2028	<b>Date version published</b>	December 2023

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### Purpose Statement

Students are able to explore data using a statistical enquiry process.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Explore data using a statistical enquiry process</li> </ul>	<ul style="list-style-type: none"> <li>Explore data using a statistical enquiry process with statistical justification</li> </ul>	<ul style="list-style-type: none"> <li>Explore data using a statistical enquiry process with statistical insight</li> </ul>

### Explanatory Notes

- 1 *Explore data using a statistical enquiry process* involves:
- explaining different sources of variation in the data collection process
  - presenting the data using at least one appropriate visualisation
  - describing features of the data in context with reference to at least one appropriate visualisation.

*Explore data using a statistical enquiry process with statistical justification* involves:

- connecting ideas within the statistical enquiry process to complete an investigation
- justifying features of the data in context, using at least one appropriate visualisation and measure.

*Explore data using a statistical enquiry process with statistical insight* involves:

- incorporating statistical and contextual knowledge in the completed investigation, including reflecting on the statistical enquiry process.

- 2 *Statistical enquiry process* means the statistical enquiry cycle or a similar process for investigating statistics or probability.

The *statistical enquiry process* can follow one of four styles of investigation:

- comparison (numerical comparison of two or more groups)
- relationship (between two numerical variables)
- time series
- experimental probabilities (involving events with at least two stages).

- 3 *Data collection process* refers to the collation of suitable data sets of sufficient size. This includes:

- generating data through surveys or experiments using physical or digital methods, or sourcing from existing data
- selecting continuous data or discrete data values with a sufficient range of values to allow for analysis.

- 4 Refer to the NCEA [glossary](#) for Māori, Pacific, and further subject-specific terms and concepts.

- 5 This achievement standard is derived from the Mathematics and Statistics Learning Area at Level 6 of *The New Zealand Curriculum: Learning Media*, Ministry of Education, 2007.

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## Replacement Information

This achievement standard and AS91945-AS91947 replaced AS91026-AS91038.

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## Quality Assurance

- 1 Schools and institutions must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Schools and institutions with consent to assess must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference 0233

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