

Mathematics and Statistics - Pāngarau

Our students develop a positive mathematical identity and have confidence in their own understandings of mathematical concepts.

What our students learn

The students learn to think creatively, critically, strategically and logically to solve problems and model situations.

They learn to

- **calculate and estimate** using appropriate mental, written, or machine calculation methods in flexible ways and discern whether results are reasonable
- **generalise and represent** the patterns and relationships found in numbers, shapes, and measures
- **recognise and use the properties and symmetries** of shapes, describing position and movement
- **quantify** the attributes of objects, using appropriate units and instruments
- **predict and calculate** rates of change
- **identify problems** that can be explored by the use of appropriate data, exploring and using patterns and relationships in data, solving problems and communicating findings
- **interpret** statistical information

How our teachers engage students in learning

Our teachers

- develop **caring and inclusive classroom communities** that are **focused on mathematical goals** to help develop students' mathematical identities and proficiencies
- deliver appropriate, **explicit mathematics instruction** and provide plenty of opportunities for students to acquire and practise mathematical skills. On most days teachers work **with small groups**, focusing on student needs and interests
- provide students with **opportunities to work both independently and collaboratively** to make sense of ideas
- plan mathematics learning experiences that enable students to **build on their existing proficiencies, interests, and experiences**
- understand that the **tasks and examples** they select influence how students come to view, develop, use, and make sense of mathematics
- support students in creating connections between different ways of **solving problems**, between mathematical representations and topics, and between mathematics and everyday experiences
- use a **range of assessment practices** to make students' thinking visible and to support students' learning
- facilitate **classroom dialogue** that is focused on mathematics argumentation
- shape **mathematical language** by modelling appropriate terms and communicating their meaning in ways that students understand
- carefully select tools and representations to provide **support for students' thinking**
- develop and use **sound knowledge** as a basis for initiating learning and responding to the mathematical needs of all their students