

## Ideas to support positive relationships with maths

Find ways to use maths to investigate topics important to your school community so the work has meaning and purpose e.g., considering aspects of design changes to the school.	Use ongoing discussions and formative assessment to monitor dynamic relationships with maths as students change through their learning experiences.
Have high expectations and be explicit with students that maths capabilities can develop over time and with persistence and effort.	Get to know students' relationships with maths through the use of maths biographies, journals, personal journey graphs, metaphor, art.
Teachers actively engage in mathematics, model confusion and mistake-making, and reflect on their own relationships with maths.	Share with whānau the maths problems the class is working on and invite them to bring maths problems to the class.
Treat students as capable mathematicians where their thinking is valued.	Provide regular opportunities for both challenge and confusion.
Provide explicit opportunities to develop skills and dispositions of students in perseverance, cooperation, independence, taking risks and adaptability when using maths.	Seek opportunities for whānau to be involved in the maths learning, for example, bring whānau in to talk to the students about how they use maths as a tool in the context of home, marae, community, employment, art, and continue to use these contexts in class.

Regularly share maths ideas, experiences, stories and wonderings between teacher, students and whānau.	Find opportunities to talk about maths with the class, and observe how students approach maths in a variety of ways.
Offer opportunities to explore maths in interesting and beautiful patterns and designs.	Help students reflect on the relationship between perseverance and progress.
Provide learning opportunities where students can see their own cultural identity when engaging with maths.	Help students see that maths tasks can take time and doing maths can be a messy process involving multiple drafts just like art or writing. If needed, they can clean up their presentation later.
Encourage students to take risks in their learning and model risk-taking in maths, and show your belief in them.	Help students recognise when they are stuck or need a prompt to develop the next step of mathematical thinking.
Design tasks that have multiple entry and exit points, and more than one solution or pathway. For example, exploring the patterns in Pascal's triangle.	Provide a variety of tasks so that every student has the opportunity to experience confusion, uncertainty, or not knowing how to proceed, so they develop strategies for this.
Model, highlight, and affirm an attitude of exploration, enthusiasm, and curiosity for maths endeavour and challenge.	Offer tailored teaching of specific maths skills needed to progress. For example, groups investigating areas of various shapes could be introduced to new shapes.