MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Effective Practices that Support Numeracy

As you read through these practices, consider:

- What effective practices are already a strength for you? How do you know?
- What practice do you want to further develop or strengthen? Who or what could help?
- What can you do now to reflect on and further develop your numeracy teaching practice?

1. Integrate numeracy into rich, open learning experiences

- Model approaches to unpack complex problems, such as 'thinking out loud' to identify key information in the problem.
- Support ākonga to seek out further information and make sense of the problem in a context they can relate to.
- Challenge ākonga to consider multiple numeracy strategies and explain how each strategy works.

2. Promote a growth mindset and have a positive disposition to numeracy

- Challenge the myth that there are "maths people" and "non-maths people". Everyone can be numerate.
- Acknowledge the value of incorrect responses by finding the brilliance in the thinking, and use this to begin conversations that move the learning forward.
- Have high expectations for all ākonga.

3. Be clear about numeracy in your learning area

- Clearly state when numeracy is part of the lesson in your learning intentions.
- Use a range of scaffolding practices so all ākonga can access the task.
- Model good numeracy strategies.

4. Ensure all ākonga can contribute to numeracy discussions

- Give ākonga time to prepare their ideas and share their thoughts with others (think-pair-share)
- Provide ākonga with coloured cards or mini-whiteboard so everyone can be part of class discussions. Select ākonga to justify their choices or explain their thinking to a partner.
- Ask ākonga to provide wrong answers for a particular problem and have them explain why this answer is wrong. This helps ākonga consider the reasonableness of their responses.

5. Empower ākonga to work creatively and collaboratively

- Encourage ākonga to share and develop ideas using *Talk Moves*
- Use mixed-ability groups so ākonga can build on each other's numeracy skills and learning area knowledge
- Support ākonga to take intellectual risks, like providing partial understandings that can progress the collective thinking.

6. Be curious about your ākonga

- Have a repertoire of questions that you can use to uncover the thoughts of your ākonga
- Encourage ākonga to be curious and ask questions too.
- Encourage ākonga to share their experiences, and design activities that build on their experiences and integrates numeracy into your learning area.
- Talk with teachers in other learning areas to uncover transferable numeracy skills. Consider how you could use this in your planning and teaching.

7. Use multiple representations

- Express numeracy ideas using words, pictures, diagrams, graphs, symbols, and equations. Make connections between these different representations.
- Use concrete and visual aids such as manipulatives, and pictures to illustrate abstract numeracy concepts with ākonga

MAY 2022