

# Support numeracy and maths

A suggestion for implementing the strategy 'Support self-regulation and positive behaviour' from the Guide: [FASD and learning](#)

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## **Includes:**

- Use consistent terms
- Extend opportunities to build understanding
- Make abstract concepts concrete
- Provide supports for independent learning
- Reinforce and repeat
- Useful resources

Inclusive Education

From

Guide: [Fetal alcohol spectrum disorder and learning](#)

Strategy: [Support self-regulation and positive behaviour](#)

Suggestion: [Support numeracy and maths](#)

Date

04 October 2021

Link

[inclusive.tki.org.nz/guides/fetal-alcohol-spectrum-disorder-and-learning/support-numeracy-and-maths](https://inclusive.tki.org.nz/guides/fetal-alcohol-spectrum-disorder-and-learning/support-numeracy-and-maths)

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## Use consistent terms

Mathematics has its own vocabulary.

Students with FASD often have difficulty generalising their learning.

Use consistent language for all concepts. For example, avoid using both “nought” and “zero” interchangeably.

Keep in mind that each time a component changes, for a student with FASD, it is likely to be new learning.

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## Extend opportunities to build understanding

- ✓ Make provision for learning to take place at a slower pace.
- ✓ Provide multiple interactive opportunities for students to engage with new ideas and concepts.
- ✓ Offer opportunities to talk through mathematical processes and problems.
- ✓ Provide access to video and online examples of maths processes that allow students to revisit the steps involved as often as necessary.
- ✓ Support students to decode word problems by focussing on one aspect at a time. Use familiar names and scenarios so that there is less decoding.
- ✓ Provide visuals to support understanding.
- ✓ Offer extra time and access to adult or peer support when required.
- ✓ Provide extended time on tests and assignments. Be alert to the possibility of students freezing under the pressure of having to work quickly in timed tests.

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## Make abstract concepts concrete

Teach addition, subtraction, multiplication, division facts, and basic fractions skills within the context of life skills.

- ✓ Demonstrate a concept, show rather than tell, and be prepared to repeat the demonstration or instruction.
- ✓ Provide concrete examples of abstract concepts, for example use an abacus for demonstrating place value, and real objects for counting in sequence.
- ✓ Use digital technologies to provide visual representation of number rules and mathematical concepts.
- ✓ Online learning games may work well because they are repetitive and visual and provide immediate feedback, coupled with a hands-on learning experience.
- ✓ Use vertical number lines instead of horizontal number lines so students can see that adding results in numbers going up and subtracting results in numbers going down.
- ✓ Older students may need to continue using number lines and concrete manipulatives.
- ✓ Plan physical activities involving mathematical concepts such as number, positional language, colour, and shape, as movement can aid memory retention.

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## Provide supports for independent learning

- ✓ Use a highlighter to help students follow instructions, such as where to start and where to stop.
- ✓ Design resources and worksheets with fewer problems and lots of white space. Enlarge the font size and spacing of the questions.
- ✓ Avoid mixing addition and subtraction or multiplication and division problems on the same page. Ensure that the operation symbol is in large and bold type.
- ✓ Graph paper can help students to line up digits more easily.
- ✓ Make mathematical process cards by highlighting examples of mathematical processes (for example, multiplication, division, and subtraction) broken down in a step-by-step process for the student to refer to as reminders.
- ✓ Allow students to use a calculator for basic computations.
- ✓ Use online activities to support practise and repetition.
- ✓ Allow students to present work in ways they can do independently.

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# Reinforce and repeat

BasicFacts - Windows Internet Explorer

http://www2.nzmaths.co.nz/LearningObjects/BF/MultiplicationBF.htm

File Edit View Favorites Tools Help

BasicFacts

### Multiplication & Division Facts Learning Object

Congratulations, you have learned all of your multiplication facts. Click on test all facts to check that you know them all.

Test all facts

Test recent facts

Learn a new fact

Exit

#### Known Facts

x	1	2	3	4	5	6	7	8	9	10
1	•	•	•	•	•	•	•	•	•	•
2	•	•	•	•	•	•	•	•	•	•
3	•	•	•	•	•	•	•	•	•	•
4	•	•	•	•	•	•	•	•	•	•
5	•	•	•	•	•	•	•	•	•	•
6	•	•	•	•	•	•	•	•	•	•
7	•	•	•	•	•	•	•	•	•	•
8	•	•	•	•	•	•	•	•	•	•
9	•	•	•	•	•	•	•	•	•	•
10	•	•	•	•	•	•	•	•	•	•

Print facts you know

Source:

[nist6dh](https://nist6dh)

<https://flic.kr/p/bGAArM>

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## Useful resources



Educational strategies for difficulties with mathematics

Read time: 4 min

Publisher: Duke University

[Visit website](#)

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