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Maths Apps and Online Programs

Students can struggle with mathematics for a variety of reasons:

- they may have a specific learning difficulty in mathematics (otherwise known as dyscalculia);
- they may have another specific learning difficulty, such as dyslexia, which makes aspects of mathematics such as learning number facts, multiplication tables and understanding the language of mathematics difficult;
- they may have anxiety about their ability to succeed at mathematics; or
- they may have gaps in their earlier understanding of fundamental mathematical concepts or skills, making it difficult to develop more advanced mathematical skills.

“Dyscalculia is an innate difficulty in learning or comprehending mathematics. Children with Dyscalculia have trouble understanding numbers, learning how to manipulate numbers, learning mathematical facts, and a number of other related difficulties.”

AUSPELD Understanding Learning Difficulties Guide



To support students it's helpful to:

- ensure students have a mastery of basic facts and concepts before moving onto more complex skills;
- teach concepts and skills in a hands on way, using manipulatives such as counters, dice and cuisenaire rods;
- provide lots of opportunities to practise individual skills until mastery is achieved before moving onto new skills; and
- use games to give students opportunities to practise.



About Maths Apps and Online Programs

There are lots of great mathematics apps and online programs available to assist students develop their mathematical skills. Mathematics apps often do not explicitly teach concepts and so can be best used for students to practise concepts they have recently been taught.

It's important to consider your own child's or student's interests and personality when selecting apps as not all apps will suit or engage all children. Some apps which focus on fundamental mathematics skills are developed for younger children. We have made efforts, where possible, to include apps in this InfoSheet that will engage older learners who need to spend time consolidating fundamental skills as part of a maths remedial intervention or as revision.

It's a good idea to start with an app that seems a little too easy. This is especially important for students that have anxiety associated with mathematics. Starting with an easier app or level gives the student an opportunity to achieve success and consolidate their skills, improve self-esteem and reduce math anxiety.

Most apps are available on a number of platforms. However, iOS currently has the greatest range of educational apps. Prices for apps have not been listed as these change over time and differ between platforms.

If you have used a mathematics app with your child or student that you love please get in touch as we would love to expand this list over time.

Further resources

- [Steven Chinn](#)
- [Ronit Bird](#)
- [Maths No Problem](#)
- [Judy Hornigold](#)
- [Dr Paul Swan](#)

Foundational Numeracy Skills, Number Facts and Number Sense

Number sense is often an area of difficulty for students with numeracy difficulties, particularly those students with dyscalculia. Particular areas of difficulty can be place value, magnitude of number and number bonds.

[Numbers by DragonBox](#)

Aimed at building number sense. Fun and engaging monsters visually represent number and are sliced and stacked.

[Big Numbers by DragonBox](#)

Builds on basic number sense taught in the Numbers app. Lots of fun.

[Quick Math Jnr by Shiny Things](#)

Very basic number sense app, engaging and fun app.

[Drive About Number Neighbourhood by Artgig](#)

Practises a range of fundamental math concepts including counting, ordering, matching, number identification, number writing.

[Counting Dots: Number Practice by Ellie's Games](#)

Covers basic counting practise in a fun game.

[Dexteria Dots – Get in Touch with Maths by Binary Labs](#)

BinaryLabs develop a range of occupational therapy apps. Dexteria Dots is aimed at fine motor skills and basic number sense.

Addition and Subtraction

[Jump Numbers by Artgig](#)

Simple addition game. Fun and engaging

[MathEdge add and subtract by Peekaboo Studios](#)

This is a visually simple app which is a great step between games and doing sums on paper. Great for students with dysgraphia.

[Lobster Diver by Learning Games Lab](#)

This is a fun number line game for practise of more advanced skills

[Finger Glove Addition](#)

This app uses both a 10 frame and the visual of fingers to count forwards and backwards. Dots and a number line can also be added.

[Number Race](#)

Computer game aimed at ages 4 to 10 that is for consolidation of basic number sense, counting and addition and subtraction skills. Start with Number Race and then move on to Number Catcher.

[Number Catcher](#)

Computer game aimed at ages 4 to 10 that is for consolidation of basic calculation skills. Follows on from Number Race.

Multiplication and Division

[Divide by Sheep by Tiny Build](#)

This is a fun division app that is slightly gruesome (hence, its appeal). Sheep are sliced up to practise division concepts.

This app is easy to begin with but then gets more complex. Great for older students.

[Multiply Pizza Pie by FizzBrain](#)

Unlike the majority of timetable apps this app teaches not just rote learning of timetables but the conceptual understanding of multiplication.

Students run various restaurants which they design, starting with a pizza restaurant. Concepts are shown and reviewed visually and mathematically.

[Marble Math Multiplication](#)

Fun way to practise multiplication once basic concepts are understood. Can be customised to level and timetable.

[MathsEdge Multiplication by Peekaboo Studios](#)

Maths Edge multiplication is for children who already understand multiplication and just require more practise. It is visually clear and uncluttered.

[MathsEdge Division by Peekaboo Studios](#)

This app is a great clear visual app that is excellent for step by step division and is a great step before doing paper sums.

Fractions, Decimals and Percentages

[Slice Fractions by Ululab](#)

This is an engaging game based app which teaches fraction concepts from the most basic level and builds up to more complex. Based on a cut the rope style game.

[Slice Fractions 2 by Ululab](#)

This is the sequel to Slice Fractions. It builds from basic concepts to more complex.

[Quick Fractions by Shiny Things](#)

This app is for children with an understanding of fraction concepts and helps build fluency. It is a timed app.

Time

[Quick Clocks by Shiny Things](#)

A simple app teaching clock concepts. The app is timed and would be more appropriate for a student with some mastery.

[Squeebles Tells the Time by Key Stage Fun](#)

Nice clear graphics and a few game like features. Fun little creatures that would appeal to younger and older students.

General Mathematics Skills

To use these apps successfully, students need to have mastered some basic maths skills and concepts.

[Prodigy Math Games](#)

A comprehensive game platform used by schools and available as in a home app. Uses diagnostics to place child at a level. Engages children with a fantasy based game style.

[Quick Math by Shiny Things](#)

This is great especially for children with motor difficulties as sums are easily drawn with the finger on the app.

This is a timed app so may cause anxiety in some children. Covers arithmetic and timetables and is good for practicing maths facts.

[Quick Math Plus by Shiny Things](#)

This app is the next level of difficulty after Quick Math and has allows for practice of higher level skills and concepts in a timed situation.

[Khan Academy](#)

This is not a game based app but has video lessons on a huge range of mathematics concepts presented in a sequential manner.

Great for videos explaining individual concepts and related online activities. (Also covers other subjects other than maths.)

[Marble Math Jnr by Artgig](#)

Marbles are dragged or rolled to the correct answer. A fun way to practise math questions.

Great to step up from individual concept based apps and move towards fluency. Can be customised to select which skill/s are practised.

[Marble Math by Artgig](#)

Marbles are dragged or rolled to the correct answer. A fun way to practise math questions.

More difficult than Marble Math Jnr. Can be customised to select which skill/s are practised.

[Mystery Math Town and the sequel](#)

[Mystery Math Museum by Artgig](#)

Fun game based math apps for practising a range of math skills

[MathEdge symbols by Peekaboo studios](#)

This is a great app for practising math symbols.

[Matific Galaxy](#)

Matific has a range of apps organised by grade level. They are fun games based apps. K to 6 is covered. A one month trial is available, the apps are paid by subscription.

[Mathigon](#)

A free virtual textbook that is interactive and visual.

[Maths Online](#)

This online program requires a subscription. It includes video lessons and online practice activities. It is matched to the Australian curriculum.

Algebra

[Algebra 5+ by Dragonbox](#)

Despite saying 5+, this app is a great place to start when introducing algebra concepts before moving on to the 12+ app as algebra fundamentals need to be understood well. Uses engaging characters.

[Algebra 12+ by Dragonbox](#)

Aimed at 9 years and up. This app builds algebra concepts from the first app. Like the first app it uses fun creatures to build algebra concepts gradually.

[Bug Hunter, The Secret of Algebra by Chibig Studio](#)

This is a great Algebra app. It teaches concepts from the most basic and gradually moves students from bugs to equations.

[Algebra Touch by Chibig](#)

This is a good app to move onto once Bug Hunter and Dragonbox apps are mastered. This app is more engaging than paper and allows students to practice algebra concepts to achieve mastery.

Virtual Manipulatives

[Maths Learning Centre series of apps](#)

MLC (the Math Learning Center) has a range of free virtual manipulative apps.

[Mathigon polypad](#)

This is a free online manipulatives pad.

Geometry

[Elements by Dragonbox](#)

Build geometric shapes and explore properties of the shapes.

Great for developing a fundamental understanding of how shapes relate to each other. Includes angles.

Assistive Technology

[Socratic](#)

This app allows the student to take a picture of their maths problem and it will find the relevant concepts and assist with solving the math problem.

[Photomath](#)

Photomath is similar to Socratic in that allows you to take a photo of a maths problem and work through the solution via the app.

[ModMath](#)

Mod math is a great tool to use as a digital maths workbook

