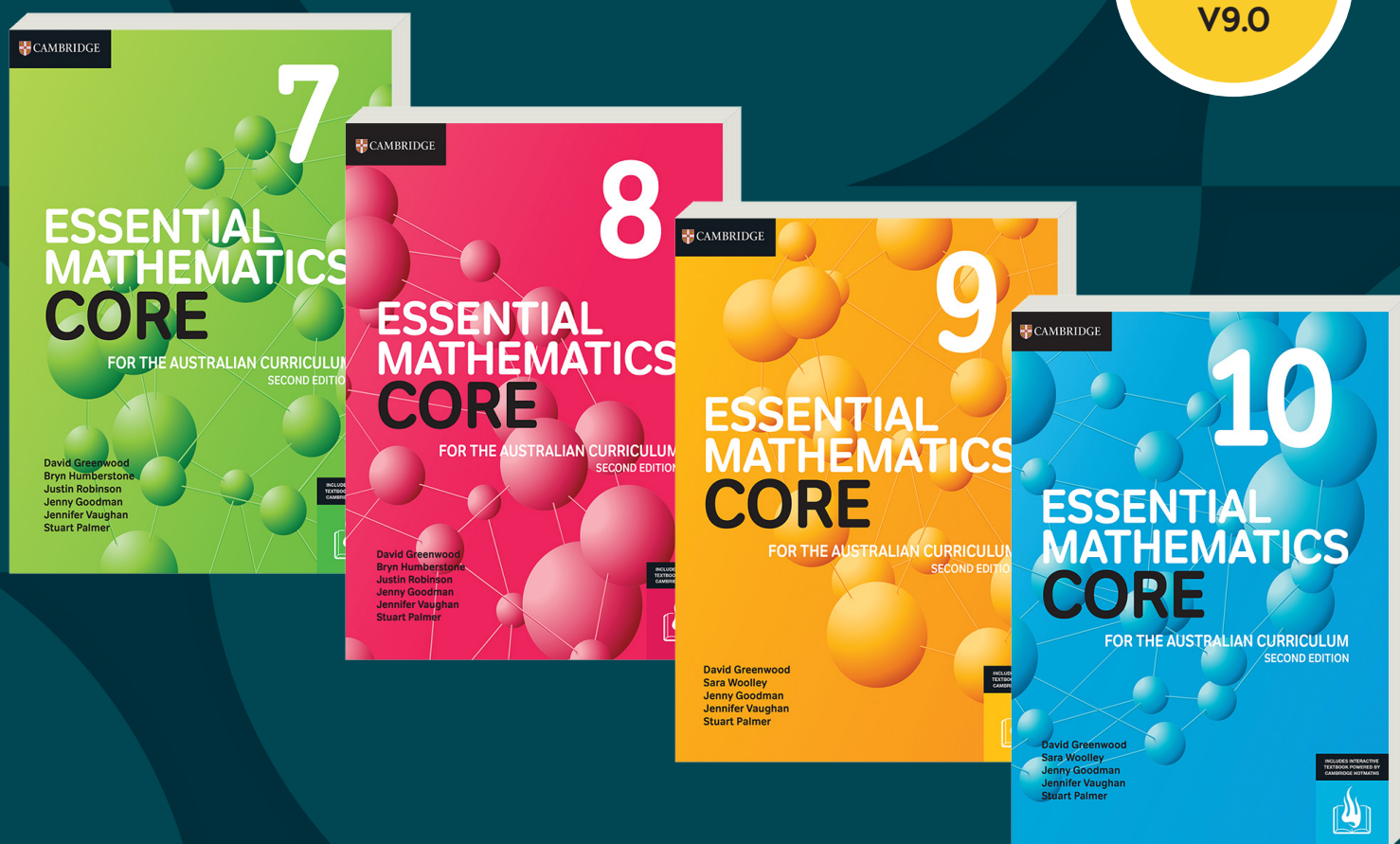


Essential Mathematics CORE for the Australian Curriculum Second Edition

Australian
Curriculum
V9.0



Supporting students who need
additional help to master the basics

cambridge.edu.au/essentialmathsCOREac

Essential Mathematics CORE for the Australian Curriculum Second Edition supports students who need additional help to master the minimum requirements of the Achievement Standards and acquire maths tools for life and the workplace.

New in this edition:

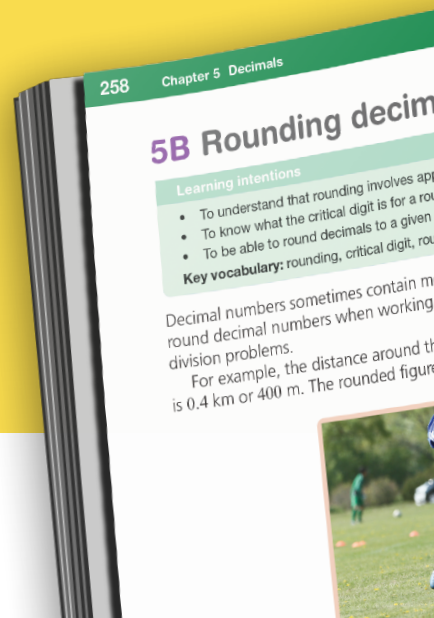
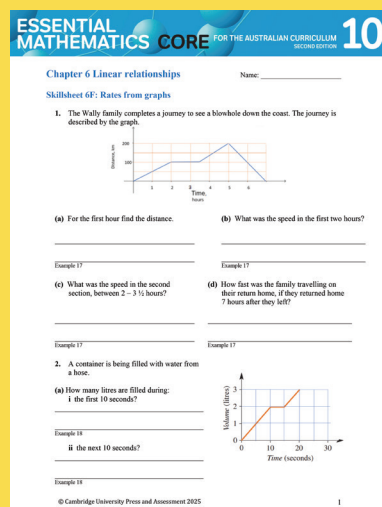
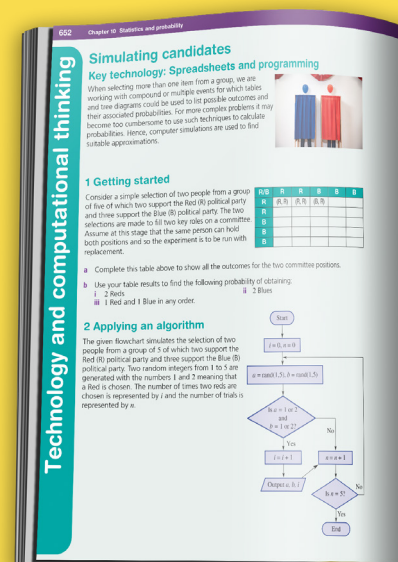
Introducing our diagnostic assessment tool: developed in consultation with classroom teachers, this powerful new tool offers the flexibility to build your tests from one or more textbook lesson or the curriculum content descriptor, with the option to drill down to mathematical skill level. Identify and address gaps in student knowledge with intuitive reports and follow-up work that provide teachers with valuable insights into student performance and growth.

Engaging new technology and computational thinking activities in every chapter meet the requirements of the Australian Curriculum v9.0 and give students the practical skills needed to use technology they will encounter in the workplace and in life, such as spreadsheets and calculators.

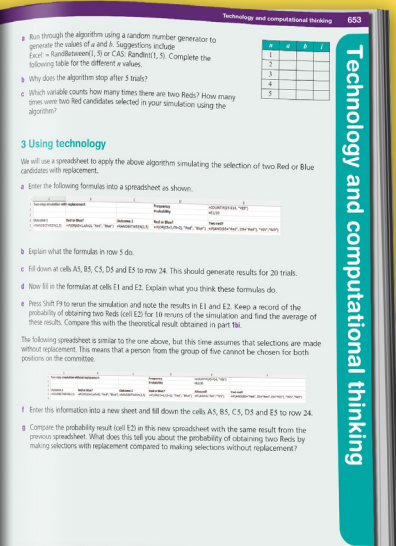
New projectable and editable lesson summaries, designed for classroom presentation, help focus students' attention and initiate classroom discussion.

New targeted skillsheets focus on a single skill or set of related skills and are supported by worked examples. Available for download in the Interactive Textbook, they can be assigned as homework or used as classwork.

Investigations, co-created with ATSIMA (Aboriginal and Torres Strait Islander Mathematics Alliance), support teachers to deliver the cross-curriculum priority for Aboriginal and Torres Strait Islander Histories and Cultures in their maths classrooms.

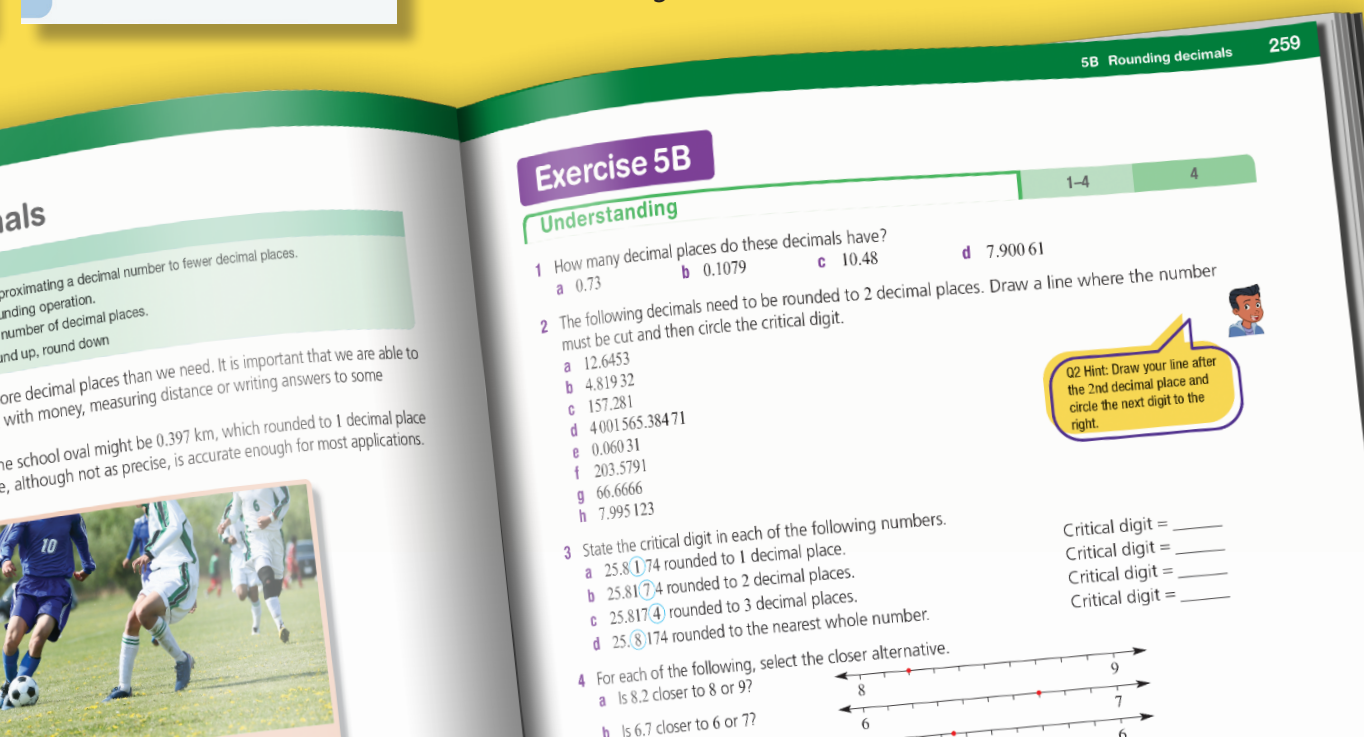
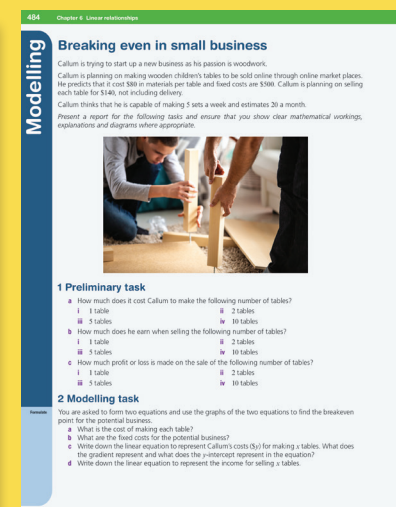


To learn more and view sample content visit:
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Features that continue to support your students:

- Resources are thoughtfully designed to support lower and middle ability students with structural similarities to the mainstream *Essential Mathematics* series that allows teachers to run them in parallel and provides the flexibility to transition back to the standard course before Year 10.
- The modified grading of problems, tailored worked examples, hints scattered through the exercises, and refined language throughout, support students of lower and middle ability to master the basics of the Australian Curriculum.
- Developed by the most experienced and trusted team of authors writing for the Australian Curriculum, this new edition continues to combine logical and sequential topic development with scaffolded and open-ended tasks such as Investigations, Problem-solving tasks, Modelling, Maths@work activities and linked questions to encourage a deeper understanding of the basics.
- Teachers can tailor the work to suit their students' needs with two separate working programs subtly embedded in every exercise. More emphasis is placed on revision with clearly labelled Consolidating sections. Gold Star sections provide an extra challenge.

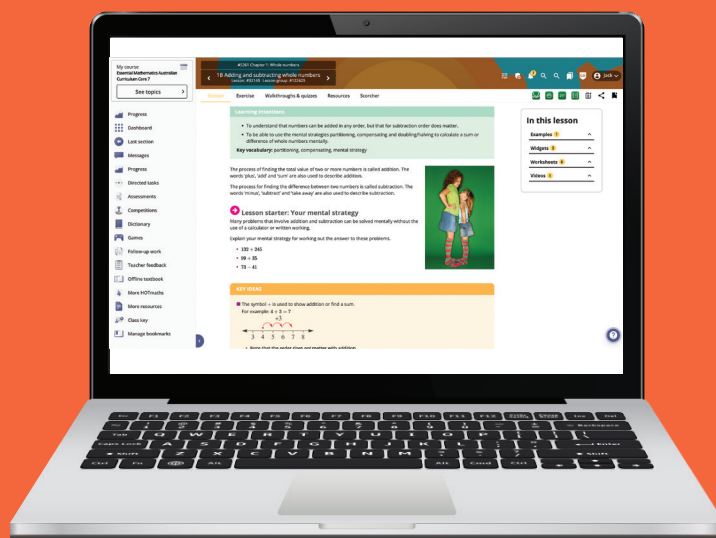
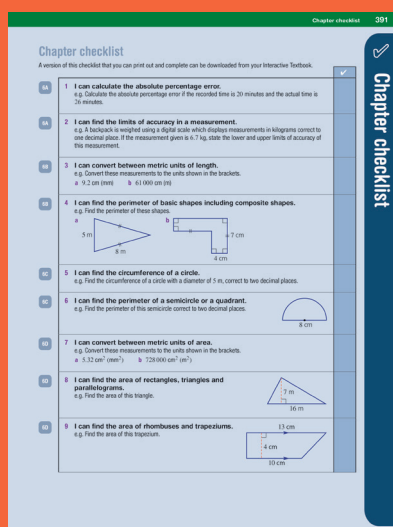


Interactive Textbook

The online version of the student text delivers a host of interactive features to enhance the teaching and learning experience.

Interactive features:

- **Video** demonstrations are provided for all worked examples.
- **Walk-throughs** with explanations step students through solving a problem.
- **Desmos** graphing tools and guided Desmos widgets help demonstrate concepts.
- **Roll-over and audio definitions** are available for key terms along with a full glossary.
- **Auto-marked quick quizzes** give students immediate feedback on their progress.
- **Workspaces** allow students to type, draw or upload their working directly into the Interactive Textbook for all exercise questions.
- **Self-assessment tools** allow student to check their answers (where teachers have enabled access), self-assess their working using a four-point scale and use a red flag to alert their teacher if they had trouble with a question.
- **Comprehensive worked solutions** for all questions are provided in the Interactive Textbook as an option that teachers can choose to enable for their students.
- **Success criteria checklists** for each chapter with linked questions can be downloaded.
- **Access to more HOTmaths** allows students to revise prior knowledge.
- **Skillsheets and worksheets** are downloadable for in-class or homework.
- **The Scorchers** competition provides timed, quick quizzes at the end of a chapter with a leader board available across the school and state.
- **Access to the Offline Textbook**, a downloadable version of the student texts with note-taking and bookmarking enabled.



Online Teaching Suite

New level of digital support for teachers with a powerful Learning Management System.

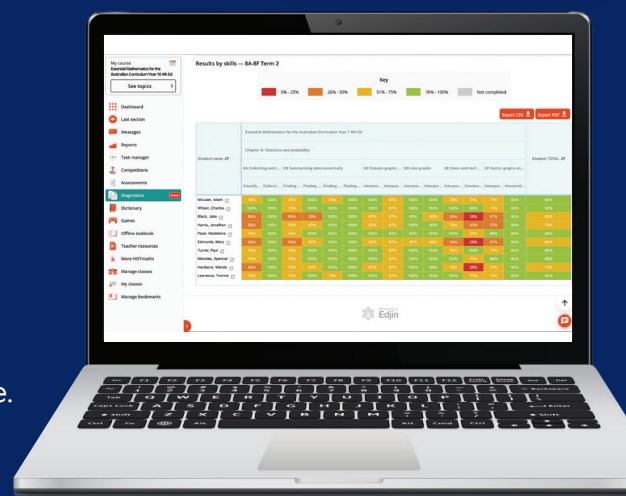
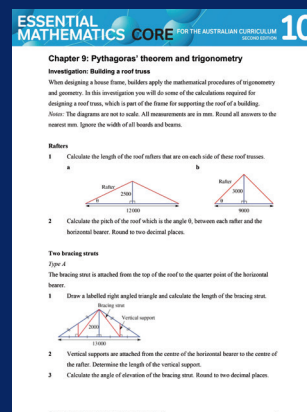
Access to the full student Interactive Textbook

Interactive features:

- **New diagnostic assessment** tool – Easily build your own set of diagnostic tests to identify gaps in student knowledge. Set the suggested follow-up work and assign a system-generated post-test to measure growth.
- **Test generator** – Quickly create customised tests from a bank of multiple-choice questions. Tests are auto-marked in the Interactive Textbook or can be printed and used for homework or assessment practice.
- **Task manager** – Direct students on a custom activity sequence based on their scores in measurable activities.
- **Reports** – Monitor student and class results on auto-marked questions, self-assessment scores and completion of tasks with a range of reporting tools.
- **Access to student Workspaces** – Review responses and red flags raised by students who are having difficulty. You can choose to give students access to answers for self-assessment.
- **Teacher notes** – Additional advice or suggestions for lessons are indicated by an icon.

Downloadable resources:

- **New downloadable Investigations** with accompanying marking rubrics and additional advice to support teachers to deliver the cross-curriculum priority for Aboriginal and Torres Strait Islander Histories and Cultures in their maths classrooms.
- **Chapter tests and Worksheets** and answers for each chapter.
- **New projectable Lesson summaries** for each section.
- **New targeted Skillsheets**, plus Skill and drill sheets, Literacy activities, and Investigations for homework or in-class.
- **Planning documents** include Curriculum grids, working programs and teaching programs to save teachers time.



Diagnostic assessment tool

Identify and address gaps in students' knowledge.

Watch our short video
about the diagnostic
assessment tool



Build custom pre- and mid-tests

- Draw from a bank of 5000 levelled questions.
- Build your test from a textbook or curriculum view.
- Drill down to mathematical skill.

Assign suggested follow-up work

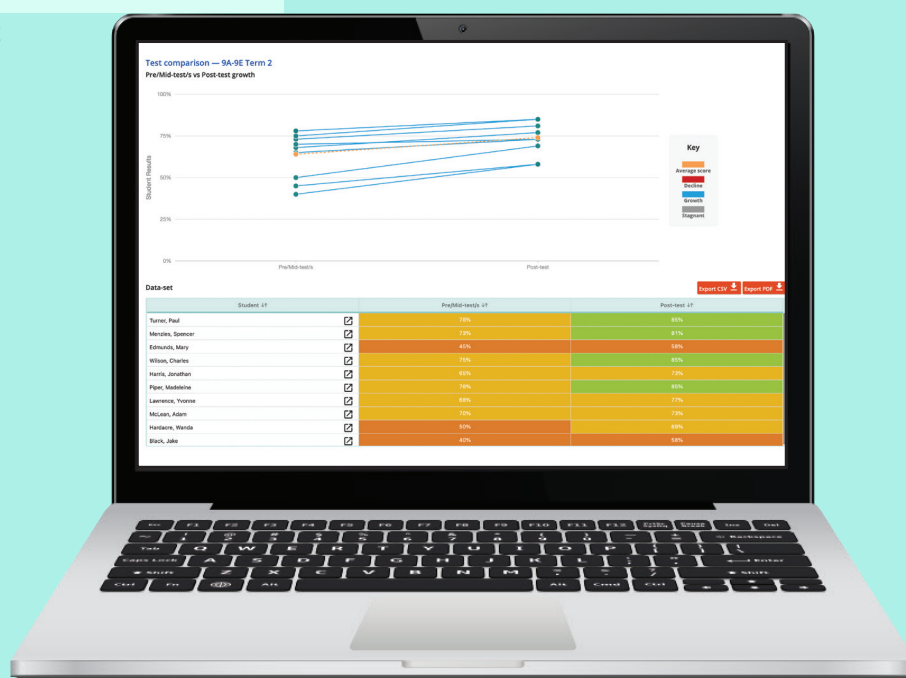
- Target areas your students need to improve.
- Follow-up work includes: Key ideas, worked examples and video demonstrations, *Now you try* questions, and exercise questions.

Generate a post-test

- The system will choose questions that cover the same skills you covered in your pre-tests.

Report on individual and whole class performance

- Results by questions
- Results by skill
- Test comparison
- Performance by student
- Score vs time taken
- Growth vs attainment



Learn how here:

cambridge.edu.au/diagnostictool

About our author team

David Greenwood is the Head of Mathematics at Trinity Grammar School in Melbourne and has 30+ years teaching mathematics from Year 7 to I2. He is the lead author for the Cambridge *Essential* series and has authored more than 80 titles for the Australian Curriculum and for the syllabuses of the states and territories. He specialises in analysing curriculum and the sequencing of course content for school mathematics courses. He also has an interest in the use of technology for the teaching of mathematics.

Sara Woolley was born and educated in Tasmania. She completed an Honours degree in Mathematics at the University of Tasmania before completing her education training at the University of Melbourne. She has taught mathematics from Years 7 to I2 since 2006 and is currently a Head of Mathematics. She specialises in lesson design and creating resources that develop and build understanding of mathematics for all students.

Bryn Humberstone graduated from the University of Melbourne with an Honours degree in Pure Mathematics, and has 20+ years' experience teaching secondary school mathematics. He has been a Head of Mathematics since 2014 at two independent schools in Victoria. Bryn is passionate about applying the science of learning to teaching and curriculum design, to maximise the chances of student success.

Justin Robinson is Co-Founder of *The Wellbeing Distillery*, an organisation committed to energising, equipping and empowering teachers. He consults with schools globally on the fields of student and educator wellbeing. Prior to this, Justin spent 25 years teaching mathematics, covering all levels of secondary education including teaching VCE, IB and A-Levels. His driving passion was engaging and challenging students within a safe learning environment. Justin is an Honorary Fellow of the University of Melbourne's Graduate School of Education.

Jenny Goodman has taught in schools for over 28 years and is currently teaching at a selective high school in Sydney. Jenny has an interest in the importance of literacy in mathematics education, and in teaching students of differing ability levels. She was awarded the Jones Medal for education at Sydney University and the Bourke Prize for Mathematics. She has written for *CambridgeMATHS NSW* and was involved in the *Spectrum* and *Spectrum Gold* series.

Jennifer Vaughan has taught secondary mathematics for over 30 years in New South Wales, Western Australia, Queensland and New Zealand and has tutored and lectured in mathematics at Queensland University of Technology. She is passionate about providing students of all ability levels with opportunities to understand and to have success in using mathematics. She has extensive experience in developing resources that make mathematical concepts more accessible, to develop student confidence, achievement and an enjoyment of maths.

Stuart Palmer is a fully qualified high school mathematics teacher with more than 25 years' experience teaching students from all walks of life in a variety of schools. He has been Head of Mathematics in two schools. He is very well known by teachers throughout the state for the professional learning workshops he delivers. Stuart also assists thousands of Year I2 students every year as they prepare for their HSC Examinations. At the University of Sydney, Stuart spent more than a decade running tutorials for pre-service mathematics teachers.



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**Essential Mathematics CORE for the
Australian Curriculum Second Edition**

RRP

Print and digital

\$74.95

Digital

\$59.95

Online Teaching Suite*

N/A

(Not for individual sale)

Prices are GST inclusive and subject to change without notice.

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