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 978-1-107-63635-4 - Essential Mathematics Gold: For the Australian Curriculum: Year 9  
 David Greenwood, Jenny Goodman, Jennifer Vaughan, Sara Woolley and Beth Godwin  
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# ESSENTIAL MATHEMATICS

FOR THE AUSTRALIAN CURRICULUM

# 9

# GOLD

Additional resources online

DAVID GREENWOOD | JENNY GOODMAN  
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### Number and Algebra

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# About the authors

**David Greenwood** is the head of Mathematics at Trinity Grammar School in Melbourne and has 19 years' experience teaching mathematics from Years 7 to 12. He has run numerous workshops within Australia and overseas regarding the implementation of the Australian Curriculum and the use of technology for the teaching of mathematics. He has written more than 20 mathematics titles and has a particular interest in the sequencing of curriculum content and working with the Australian Curriculum proficiency strands.

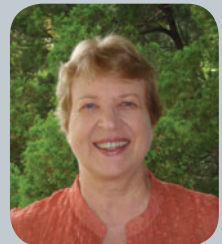
**Jenny Goodman** has worked for 20 years in comprehensive state and selective high schools in NSW and has a keen interest in teaching students of differing ability levels. She was awarded the Jones medal for education at Sydney University and the Bourke prize for Mathematics. She has written for Cambridge NSW and was involved in the *Spectrum* and *Spectrum Gold* series.

**Jennifer Vaughan** has taught secondary mathematics for more than 30 years in NSW, WA, QLD 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 taught special needs students and has had extensive experience in developing resources that make mathematical concepts more accessible.

**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 in Victoria from years 7 to 12 since 2006 and has a keen interest in the creation of resources that cater for a wide range of ability levels.

#### Consultant

**Beth Godwin** is the author of several Cambridge titles, including *Spectrum Maths Gold Year 7* and *Year 8*. She has presented seminars and workshops to educators on topics including differentiating the curriculum, behaviour management and developing literacy skills. Currently the principal of Cabramatta High School in NSW, Beth has experience in ensuring that the curriculum is accessible to all students.





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# Introduction and how to use this book

The *Essential Mathematics Gold for the Australian Curriculum* series has been developed especially to cater for students who require additional support in mathematics. Using the *Essential Mathematics for the Australian Curriculum* series as a starting point, the *Gold* series heavily revises that material and adds a wealth of new content to help students meet the Achievement Standards of the Australian Curriculum.

In addition to an author team of skilled teachers with experience teaching students at all levels, the *Gold* series has been carefully reviewed by Special Education advisors to make sure that the language and concepts are effective for struggling students.

The *Gold* series takes a practical interpretation of the Australian Curriculum that focuses on the Understanding and Fluency proficiency strands in order to help students learn core mathematical skills. These foundation abilities are developed through clear explanations of concepts that are repeated and closely linked to carefully graded exercises, which include linked examples and hints throughout. Questions for the Problem-solving and Reasoning proficiency strands, along with Gold Star enrichment problems, are provided to challenge students that want to improve their skills further.

Literacy and numeracy skills are the other major focus of the *Gold* series. Key words are defined multiple times within the books to help students become fluent with mathematical terms and concepts. Real-world contexts and applications of mathematics help students connect these concepts to everyday life. Each chapter has a Puzzles and games section for stimulus and motivation.

The *Essential Mathematics Gold for the Australian Curriculum* series complements the full *Essential Mathematics* series and Cambridge HOTmaths to provide a choice of mathematics resources that work well across all ranges of ability.

**X** Introduction and how to use this book

**How to use this book**

**Features:**

**Australian Curriculum:** strands and content descriptions for chapter

**What you will learn:** an overview of chapter contents

**Chapter introduction:** use to set a context for students

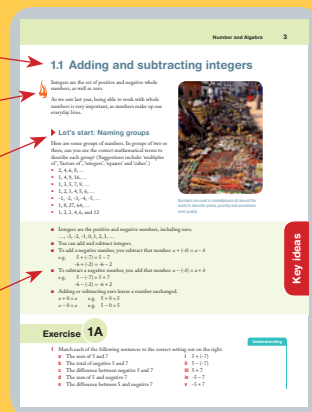
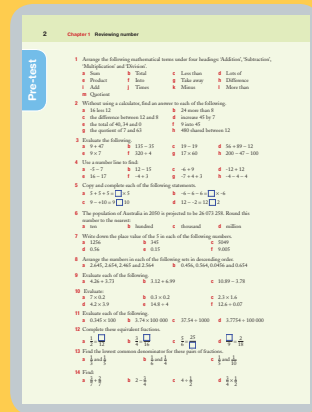
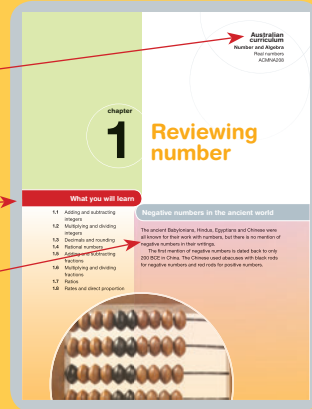
**Pre-test:** establishes prior knowledge (also available as a printable worksheet)

**Topic introduction:** use to relate the topic to mathematics in the wider world

**HOTmaths icons:** links to interactive online content via the topic number, 1.1 in this case

**Let's start:** an activity (which can often be done in groups) to start the lesson

**Key ideas:** summarises the knowledge and skills for the lesson (digital version also available for use with IWB)



**How to use this book**

Exercise questions categorised by the four proficiency strands and Gold star

Questions are linked to Examples: solutions with explanations and descriptive titles to aid searches

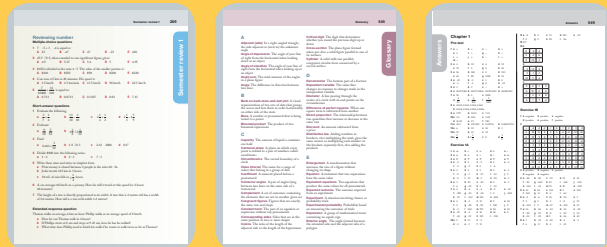
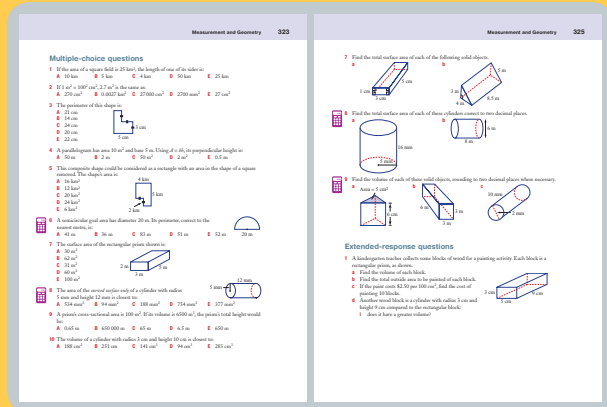
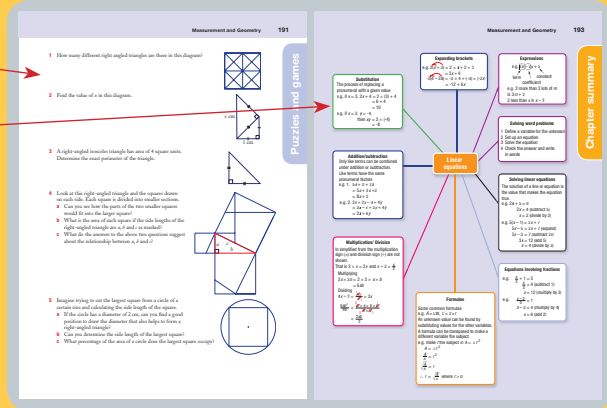
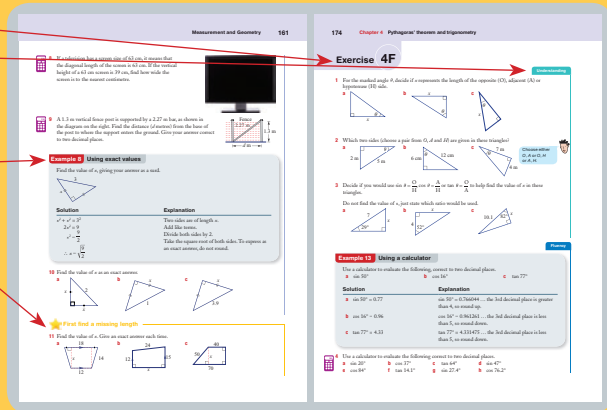
Puzzles and games

Chapter summary: mind map of key concepts and interconnections

Chapter reviews with multiple-choice, short-answer and extended-response questions

Each textbook also contains:

- Two semester reviews
- Glossary
- Answers



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