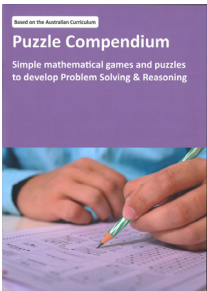


PARENT RESOURCES

SECONDARY



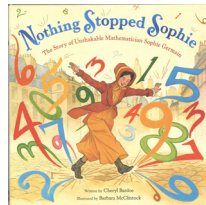
PUZZLE COMPENDIUM

4-9

Mathematical games and puzzles have been used as a source of amusement and entertainment for thousands of years. It is now recognised that puzzles and games represent an authentic context for the development of mathematical problem solving and reasoning skills. Students who develop these mathematical proficiencies of problem solving and reasoning can then apply them to a range of increasingly sophisticated mathematical problems.

This collection of 120 mathematical games and puzzles was compiled by Dr John West. It includes 17 different types of puzzle designed to provide an appropriate level of challenge for students of different ages and abilities.

\$10 (MEMBER)
\$12 (NON MEMBER)



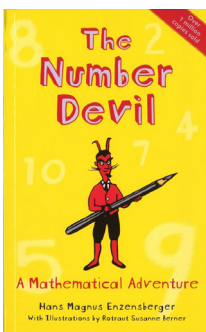
NOTHING STOPPED SOPHIE

5-9

The true story of 18th century mathematician Sophie Germain, who solved the unsolvable to achieve her dream. When her parents took away her candles to keep their young daughter from studying maths...nothing stopped Sophie. When a professor discovered that the homework sent to him under a male pen name came from a woman...nothing stopped Sophie. And when she tackled a maths problem that male scholars said would be impossible to solve...still, nothing stopped Sophie.

For six years Sophie Germain used her love of maths and her undeniable determination to test equations that would predict patterns of vibrations. She eventually became the first woman to win a grand prize from France's prestigious Academy of Sciences for her formula, which laid the groundwork for much of modern architecture (and can be seen in the book's illustrations).

\$23 (MEMBER)
\$28.50 (NON MEMBER)

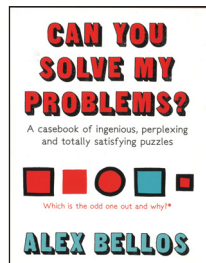


THE NUMBER DEVIL

5+

Twelve-year-old Robert hates his maths teacher. He sets his class boring problems and won't let them use their calculators. Then in his dreams Robert meets the Number Devil who brings the subject magically to life, illustrating with wit and charm a world in which numbers can amaze and fascinate, where maths is nothing like the dreary, difficult process that so many of us dread. *The Number Devil* knows how to make maths devilishly simple.

\$25.50 (MEMBER)
\$31.50 (NON MEMBER)

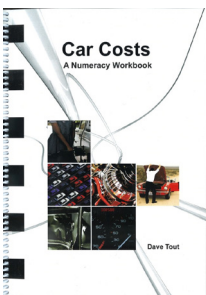


CAN YOU SOLVE MY PROBLEMS?

5+

Are you smarter than a Singaporean 10 year old? Can you beat Sherlock Holmes? If you think the answer is yes - I challenge you to solve my problems. Here are 125 of the world's best brainteasers from the last two millennia, taking us from ancient China to medieval Europe, Victorian England to modern-day Japan, with stories of espionage, mathematical breakthroughs and puzzling rivalries along the way. Pit your wits against logic puzzles and kinship riddles, pangrams and river-crossing conundrums. Some solutions rely on a touch of cunning, others call for creativity, others need mercilessly logical thought. Some can only be solved by 2 per cent of the population. All are guaranteed to sharpen your mind. Let's get puzzling

\$19.50 (MEMBER)
\$24.50 (NON MEMBER)



CAR COSTS: A NUMERACY WORKBOOK

9-
VCAL

Published by CAE and updated in 2014 with the support of the RACV, this book by acclaimed author Dave Tout uses the topic of cars to introduce and teach a number of maths and numeracy topics. It is ideal for a range of young people needing maths that makes some sense, and who also want to learn about the costs related to buying, running and driving a car.

\$29 (MEMBER)
\$36 (NON MEMBER)

HANDS-ON RESOURCES



SCHOOL FRIENDLY PLAYING CARDS (INDIVIDUAL PACK)

K+

School friendly cards are just playing cards but without any of the links to gambling and are sold as an individual packet. There are no picture cards - Just numbers 0 to 13. There are no suits, just shapes configured in standard subitising patterns and four different colours. You can play all of the traditional cards games like snap, fish and more using these simple, easy to use cards.

\$3.50 (MEMBER)
\$4.50 (NON MEMBER)



ALGEBRA TILES AUSTRALIA 7-10

Many students need the support of concrete materials before they can move into more abstract representations. But how do you do this with algebra in the middle years? Algebra tiles use an area model to bridge from the concrete to the abstract by showing students various processes in a visual manner that can then be translated into symbolic language.

Working with the tiles to build an understanding of integer arithmetic leads to the concept of algebraic simplification, including the collection of like terms. Solve linear equations. Use the tiles to show the distributive law when expanding, and in reverse to factorise. They even work with negative coefficients and quadratics!

The tiles are made of durable foam, with different coloured sides. The accompanying book clearly explains their uses and provides a number of suitable examples. Discover another way for your students to construct algebraic understanding.

TILES AND MANUAL \$25 (MEMBER)
\$31 (NON MEMBER)

TILES ONLY \$14 (MEMBER)
\$17.50 (NON MEMBER)



COMBO CARD GAME (INDIVIDUAL PACK)

5-8

COMBO is featured in Dr Paul Swan's book *Cards on the Table*. The game is designed to help students practice their basic number facts. An ideal game for children in upper primary and lower secondary school.

\$3.50 (MEMBER)
\$4.50 (NON MEMBER)

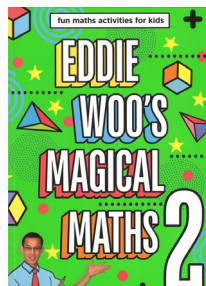


ROWCO CARD GAME (INDIVIDUAL PACK)

4+

ROWCO is also featured in *Cards on the Table*. This game links basic additions and subtraction facts with problem solving and reasoning. This game is suitable for children from Year 4 onwards.

\$3.50 (MEMBER)
\$4.50 (NON MEMBER)



EDDIE WOO'S MAGICAL MATHS 2

F-6

A bumper book of maths fun stuffed with things to draw, puzzle, invent, order, unscramble, code, decode for kids aged 7+ years from Australia's best known maths man.

There's magic in maths - if you know where to look...

\$18.50 (MEMBER)
\$23 (NON MEMBER)

24 GAME

24 Game is an educational maths card game sharpening your maths skills fun! Game cards are 4" x 4" and double-sided. 1 Dot cards are easy, 2 Dot are medium and 3 Dot are tough. Builds strong mental-mathematics and problem-solving skills; helps improve test scores and sharpens concentration



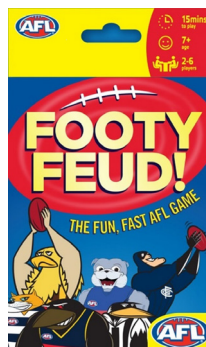
5-10



7-10

All products above are 96 card decks.

\$15 EACH (MEMBER)
\$19 EACH (NON MEMBER)



FOOTY FEUD! PLAYING CARDS

F-6

Footy Feud! is an Australian football themed-card game. Players are dealt numeric cards, and choose the highest value for scoring. The objective is to have the highest score at the end of the game (played over 4 quarters). 4 cards in the deck allow stealing or score multiplication.

Footy Feud! has tested very well with people of all ages who have no interest in Australian football. If you are familiar with the Australian football scoring method it may make the game initially easier to grasp.

\$8 (MEMBER)
\$10 (NON MEMBER)



THE MATHEMATICAL ASSOCIATION OF VICTORIA

SHOP ONLINE www.mav.vic.edu.au/mav-shop
OR CALL +61 3 9380 2399

Prices are subject to change.

MATHS AT HOME

TOP 5 TIPS FOR PARENTS

Helping your kids to do maths at home can be a positive experience.

Here are our top five tips to help you stay calm and carry on!

1. LEARNING MATHS IS ABOUT STRATEGIES

Much of the actual maths is the same as what you may have learnt. Although learning maths is becoming more about understanding the reasoning and using a variety of different



strategies to do maths.

The strategies you learnt at school are still valid too!

Teachers value students using many strategies to solve problems and develop thinking.

1.

2. ASK QUESTIONS



You don't have to know the answers! Nor do you have to know how to get there. Just ask questions and let your child think it through. Here are some of our favourites:

- What thinking did you use to get this far?
- What else could you try, is there another way?
- What could a next step be?
- How could you find out more about what to do?
- Do you think others may do something different?

2.

3. BE PERSISTENT, LEARN TOGETHER



Maths can be challenging. Rather than saying 'I can't do that', or 'It's too hard', say 'I can't do that yet', or 'We will work it out together'. Research shows parental support is a major factor

for student success at school.

Celebrate achieving small steps in solving a problem.

Persist, be supportive and remember to focus on the thinking, not getting answers.

3.

4. SEE MATHS EVERYDAY

There is plenty of maths around you to develop numeracy skills, such as calculating, measuring, using numbers, interpreting data and graphs, recognising patterns, and using language to develop mathematical understanding. Ask questions about the maths in activities like cooking, exercise, sport, budgeting and shopping. Playing games is also a fun way to practice and experience maths.



4.

5. STAY POSITIVE, KEEP CALM

Don't pass on your baggage, this is not about you! Let your children experience maths positively, we need maths for everyday life, and maths graduates have excellent career opportunities.

Don't say 'I was never good at maths' or 'I never liked maths'. Maths can, and should be, really fun!



5.

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