



Mathematical Association of South Australia

PUBLICATIONS BOOKLET

All Prices include GST
Prices effective 23/1/2017

The Mathematical Association of South Australia Inc.

Office: Building A, 80 Payneham Road, Stepney

Postal Address: PO Box 94, Stepney, SA 5069

Telephone: 08 8362 4332

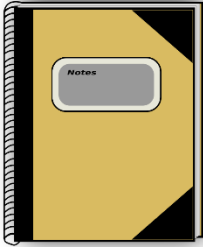
Facsimile: 08 8363 9002

Email: masamail@internode.on.net

www.masaonline.org.au

REVISION GUIDES 2017

Orders for Revision Guides are collected in Term 1 by Friday 10th March. Revision Guides are printed and available in Term 2.

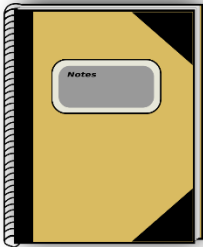


\$28.50

Mathematical Methods (2017 New Syllabus)

This is essential preparation for final assessment, covering the six topics listed in the SACE subject outline. There are some questions listed by topic, four sets of shorter questions and four sets of longer questions, and five trial examinations based on past Mathematical Studies papers and the SACE 2017 Exemplar Trail Exam.

Fully worked solutions to all questions are included.



\$28.50

Specialist Mathematics (2017 New Syllabus)

This is essential preparation for final assessment, covering the six topics listed in the SACE subject outline. There are some questions listed by topic, four sets of shorter questions and four sets of longer questions, and five trial examinations based on past Mathematical Studies papers and the SACE 2017 Exemplar Trail Exam.

Fully worked solutions to all questions are included.

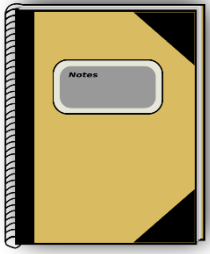


\$28.50

Essential Mathematics (2017 New Syllabus)

This guide has questions from all topics including non-examinable topics.

There are 3 trial exams plus the SACE Exemplar Trial Exam with worked solutions.



\$28.50

General Mathematics (2017 New Syllabus)

This guide has questions from all topics including non-examinable topics.
There are 3 trial exams plus the SACE Exemplar Trial Exam with worked solutions.

Trial Exams – NEW 2017

Mathematical Methods
Specialist Mathematics
Essential Mathematics
General Mathematics



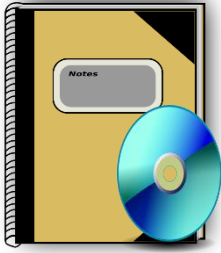
\$110.00 ea

These publications include an editable Microsoft Word document with fully worked solutions and marks scheme. These exams have been developed by experienced teachers and endeavour to offer balance and representative assessment tasks which provide appropriate practice to students undertaking Stage 2 Mathematics courses.

Trial Exams have been written for Mathematical Methods, Specialist Mathematics, Essential Mathematics and General Mathematics

Each Exam is sold separately in electronic form.

Folio Tasks



\$88.00

Mathematical Applications Resource

The publication includes folio tasks in each topic with at least one task that has an "A" grade student work sample or solution. Teacher materials including LAPS and SATs. Teacher advice about Folios as an assessment item – regarding features of quality Folio tasks and how to support students in conducting high grade investigations, some annotation and assessment advice.

Purchase price includes hard and electronic versions.



Vol 1 - \$33.00
Vol 2 - \$88.00

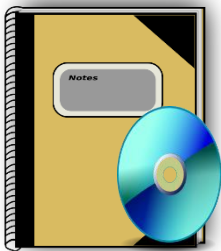
Stage 2 – Specialist Mathematics Vol 1

A resource consisting of tasks designed to conform with current SACE performance standards. The publication includes solutions or student works samples and teacher notes for assessment for some tasks.

Purchase price includes hard and electronic copies.

Stage 2 – Specialist Mathematics Vol 2

This new resource provides an additional set mathematical investigations.



Vol 1 - \$55.00
Vol 2 - \$88.00

Stage 2 – Mathematical Studies and Mathematical Methods – Vol 1

A new resource consisting of tasks designed to conform with current SACE performance standards. The publication includes solutions or student works samples and teacher notes for assessment for some tasks.

Purchase price includes hard and electronic copies.

Stage 2 – Mathematical Studies and Mathematical Methods – Vol 2

A new resource consisting of tasks designed to conform with current SACE performance standards. The publication includes solutions or student works samples and teacher notes for assessment for some tasks. Purchase price includes hard and electronic copies.

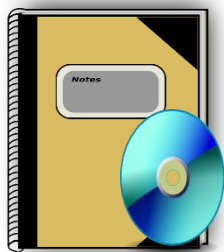


\$88.00

Stage 1 Folio Tasks - SACE

This resource consists of Folio Tasks covering content from all 14 topics of Stage 1 Mathematics. The tasks vary in complexity for use in Mathematics and Mathematics Applications courses. Four specific Pathways tasks are also included.

Purchase price includes hard and electronic copies.

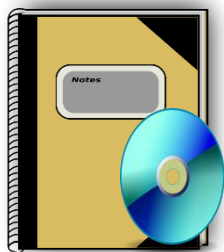


\$110.00

Rich Tasks for 10A Mathematics

This publication has been compiled to respond to the needs of teachers of the Australian Curriculum, Year 10A Mathematics. The intention of the publication is to provide a student enquiry based approach to the content described in the AC Year 10A. The format of the tasks is similar to the structure of the Folio task assessment mode as outlined by SACE and as such is a good preparation for students preparing for the AC Senior Years courses in Stage 1.

Purchase price includes hard and electronic copies.



\$55.00

30+ Directed Investigations

This set of Directed Investigations has been produced to help mathematics teachers support the teaching and learning of Mathematical Studies and Specialist Mathematics.

The investigations are from 11 Mathematics teachers across the state and have been trialled in classrooms. Some of the investigations are graphics calculator specific, however they can be adapted to suit the needs of your students

Purchase price includes hard and electronic copies.



\$30.00

500 Directed Investigations and Projects

The ever popular publication of 500 directed investigations and projects collected from teachers around South Australia during the initial years of SACE, covering each of the components of Stage 1 Mathematics.



\$66.00

Inductive Argument & Mathematical Induction

Mathematical Induction is a powerful and elegant technique for proving mathematical statements which are general conjectures that might be true for all positive integers or for all positive integers from some point on. The technique with Mathematical Induction is to prove the first statement in the sequence and then prove that if any particular statement is true, then the next will also be true. This enables you to deduce that all the statements in the sequence are true.

Purchase price includes booklet and materials in electronic form.



\$99.00

Scaffolding Folio Writing Skills - Yr 7 -10A

This resource has been compiled to support teachers in introducing more investigations into their mathematics programs. The tasks are designed to assist with students' sequential development in following scaffolded investigations and report writing. There are explicit explanations about language features and report formatting. This resource includes:

- Student writing work books
- Over 70 student activities and investigations
- Selected tasks with teacher notes, solutions, student work samples and assessment advice
- Documentation mapping tasks to Australian Curriculum
- Additional resources and checklists for good tasks

Purchase price includes booklet and materials in electronic form.



\$55.00

Middle Years Learning Tasks for the Australian Curriculum

Rich Classroom activities providing the opportunity for students to develop the Australian Curriculum proficiencies. All tasks linked directly to the Content Descriptors and Elaborations from the Australian Curriculum.

Purchase price includes hard and electronic copies.

Problem Solving



\$40.00

Problems for the Mathlete

This compendium of 4 problem sets is a collection of those used in our student activities programs in 2001. The problems are dedicated to students and teachers who are prepared to tackle a problem to which the solution is not initially apparent. A list of answers are provided with each set.

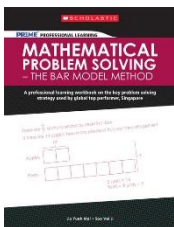


\$6.60 ea

Mathematical Application Problems

Mathematical Applications Problems have been taken from the old Business Maths Problems and Applied Maths Problems Books. Articles are not current, however they are still usable for classroom materials, and are a useful classroom resource. Problem books are sold separately under the following titles:

- Matrices
- Probability & Simulation
- Optimisation
- Mathematics & Small Business
- Share Investments
- Statistics & Working with Data
- Applied Geometry
- Investment & Loans



\$33.00

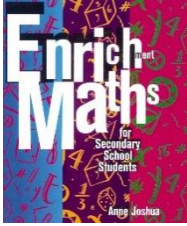
Mathematical Problem Solving

- The Bar Model Method

Vei Li Soo

The Bar Model Method is a powerful visual tool developed in Singapore for solving basic mathematical word problems. It allows students to represent the quantities and relationships in a problem situation helping them analyse and figure out how the problem may be solved. The method is useful for solving problems involving whole numbers, fractions, ratio and percentage as well as fostering pre-algebraic thinking. Used consistently from Yr 2 to Yr 9 (or even Yr 10), students develop confidence and perseverance in problem solving. With a consistent approach, teachers will be able to expose students to a variety of word problems.

Enrichment



\$66.00

Enrichment Maths for Secondary School Students

Anne Joshua

Enrichment Maths for Secondary School Students is designed to meet the needs of talented junior secondary students by providing appropriate challenging material. It aims to encourage such students to broaden their experience of solving mathematical problems.



\$30.00

Maths – Let's Do It! (Package)

This practical resource contains everything needed to run a Maths camp or workshop evening. The package includes guidelines for organisation, black line masters for communication and certificates as well as a wide range of session activities. The open-ended, hands-on activities are appropriate for upper primary and junior secondary students. There are shorter (15-20 min.) activities, longer (35-50 min.) sessions as well as extended cooperative tasks (also appropriate as classroom activities). The pack also includes some possible Maths Trails & Excursions.



\$88.00

Maths Quiz

This publication contains all the documentation and material descriptions for you to conduct a 3 hour Maths Quiz for your own students or your cluster. There are some slight variations for Level 1 and 2



\$55.00 ea

Enrichment Maths for Yr 4-9

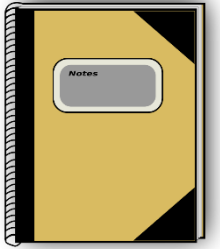
3 hour interactive programs for students from Yr 4 to Yr 9. These publications contain all the documentation and material descriptions for you to conduct a fully developed enrichment program for your own students or your cluster. It will provide the opportunity for students to develop new ways of working mathematically as they solve some challenging mathematical problems. This publication is separately for Level 1(3 Programs) and Level 2 (3 Programs).



\$110.00

LOVE Maths

A series of events and activities that could be held in your school for Maths Month, all student and staff can engage in problem solving while building cross-curricular links. All documentation included.



\$88.00 book

Crafty Business

This publication combines basic numeracy units in 4 career contexts and creative crafts but tasks can be differentiated for more able students. This publication can be purchased as a book only or a book with samples included.

**\$110.00 book
& samples**



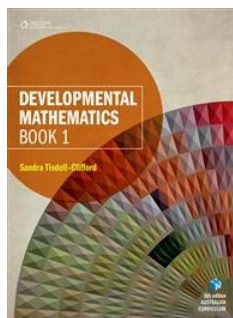
\$55.00 ea

Maths Buster Relay Sets

Maths Relays are an integral part of MASA's Student Enrichment Programs and teachers have requested that these materials be made available for purchase separately from the complete Student Enrichment Program Sets. The Relay set consists of 10 graded problems that rely on mathematical thinking rather than content knowledge. Instructions on how to conduct the relay with your class or a large number of students are provided. Concrete materials are often useful in solving the problems and any special requirements or templates are included in electronic form. These problems could also be used individually. The Relay Sets are sold separately for Level 1 (Yr4-9) or Level 2 (Yr6-9)

Developmental Mathematics (Sandra Tisdell-Clifford)

In schools for over four decades, Developmental Mathematics has been a unique, well-known and trusted Years 7-10 mathematics series aimed at developing key numeracy and literacy skills. This 5th edition of the series has been revised for the new Australian curriculum as well as the NSW syllabus Stages 4 and 5.1. The four books of the series contain short chapters with worked examples, definitions of key words, graded exercises, a language activity and a practice test. Each chapter covers a topic that should require about two weeks of teaching time.

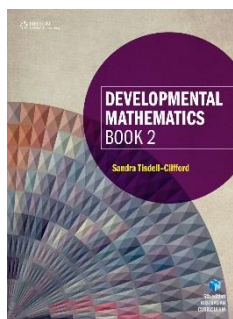


\$59.95

Developmental Mathematics Book 1

Developmental Mathematics Book 1 is written for students in Year 7-8, covering the Australian curriculum (mostly Year 7 content) and NSW syllabus. This book presents concise and highly structured examples and exercises, with each new concept or skill on a double-page spread for convenient reading and referencing.

Content includes Working with numbers, Percentages, Earning and saving money, Algebra, Pythagoras' theorem, Trigonometry, Ratios and rates, Congruent and similar figures, Length and time, Indices, Area and volume, Investigating data, Equations and inequalities, Probability, Coordinate geometry, Graphing lines and curves.



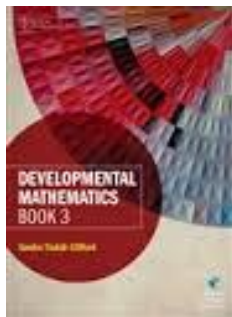
\$59.95

Developmental Mathematics Book 2

Developmental mathematics Book 2 is written for students in Years 8-9, covering the Australian curriculum (mostly Year 8 content) and NSW syllabus. This book presents concise and highly structured examples and exercises, with each new concept or skill on a double-page spread for convenient reading and referencing.

Content includes Pythagoras' theorem, Whole numbers and decimals, Integers and fractions, Algebra, Trigonometry, Percentages, Indices, Geometry, Equations, Earning money, Investigating data, Length and time, Area and volume, Graphing lines, Probability, Ratios and rates.

Developmental Mathematics Book 3

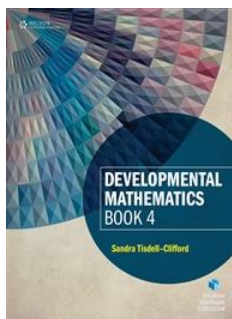


\$59.95

Developmental mathematics Book 2 is written for students in Years 9-10, covering the Australian curriculum (mostly Year 9 content) and NSW syllabus. This book presents concise and highly structured examples and exercises, with each new concept or skill on a double-page spread for convenient reading and referencing.

Content includes Working with numbers, Primes and powers, Pythagoras' theorem, integers, Decimals, Algebra, Angles and symmetry, Triangles and quadrilaterals, Length and time, Area and volume, Fractions, Percentages, Investigating data, Probability, Further algebra, Ratios and rates, Graphing lines.

Developmental Mathematics Book 4



\$59.95

Developmental mathematics Book 2 is written for students in Year 10, covering the Australian curriculum and NSW syllabus. This book presents concise and highly structured examples and exercises, with each new concept or skill on a double-page spread for convenient reading and referencing.

Content includes Working with numbers, Percentages, Earning and saving money, Algebra, Pythagoras' theorem, Trigonometry, Ratios and rates, Congruent and similar figures, Length and time, Indices, Area and volume, Investigating data, Equations and inequalities, Probability, Coordinate geometry, Graphing lines and curves.

School Maths Competition Papers



\$11.00 ea

Past School Maths Competition Papers (SMC)

A collection of the SMC Competition papers for Primary, Junior, Intermediate and Senior as they were given to candidates together with fully worked solutions. SMC Papers are sold in the following categories:

Primary (Yr 6/7) – 5 previous years

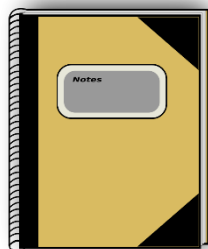
Junior (Yr 8) – 5 previous years

Intermediate (Yr 9/10) – 5 previous years

Senior (Yr 11/12) – 5 previous years

2017 School Maths Competition only – for all divisions

Investigations

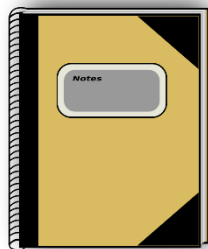


\$40.00

Investigating ABS Census Data for South Australia

Investigations suitable for Year 8 to 11 students. The data, published with permission from the Australian Bureau of Statistics, is taken from the Census for 'Population and Housing' for the years 1986, 1991 and 1996. Students can investigate the data for each Census year individually and compare the three Census years and describe the changes that occurred.

Data presented includes: Age by Sex, Age by Marital Status, Birthplace (countries), Language Spoken at Home, Religion, Qualification (highest) Level by Sex, Type of Educational Institution attending, Age by Labour Force Status, Household Type and Family Type, Dwelling Structure.

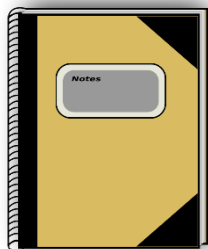


\$40.00

Investigating ABS Time Series Data

A collection of investigations for Year 10 - 12 students. The data is published with permission from the Australian Bureau of Statistics. Data presented for investigation includes a wide variety of areas such as: Building and Construction, Company Profits, Consumer Price Index, Demography, Financial Surveys, Labour Markets, Manufacturing, Retail Turnover, Transport and Tourism. The data is given in monthly, quarterly or annual increments over five to twenty years, suitable for regression analysis and future projections.

Mathematics for 'Work Education' Students (WORK RELATED STUDIES)



\$7.70

A 34-page booklet consisting of 3 major activities based on the 'Statistics'. The activities have been written by practicing teachers as part of an EDSA funded project and the activities cater for a range of mathematical ability and meet the specifications of a 'significant project' as defined by the Work Education ESF of the SACE.

Support

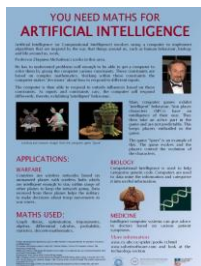
Calculator Essentials to Support Teachers & Students



\$20.00 ea

These publications are designed to support the use of the TI- 83, CASIO, HP and SHARP calculators. The graphics calculator exercises relate to the series of books from Year 8 to 12. Each Calculator model is sold as a separate loose leaf publication.

You Need Maths For... poster set



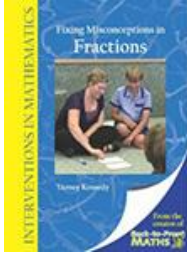
\$50.00 set

9 x A3 Laminated Full Colour Poster Set Includes the following titles: Traffic Engineering, Computer Graphics, Computer Vision, Advising Industry, Water Management, Controlling Salinity, Fluid Mixing, Internet Routing, Artificial Intelligence.

Back to Front Publications

– Tierney Kennedy

Fixing Misconceptions in Fractions



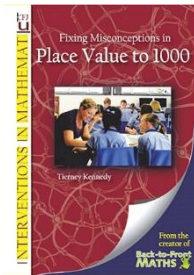
\$40.00

This book provides answers to two questions asked by upper primary and lower secondary teachers alike: Why don't kids get fractions? & How can we fix it?

Inside you will find diagnostic tasks to uncover misconceptions that are holding kids back from understanding fractions as well as lessons with unique confrontational questions to fix misconceptions for good.

Problem-based teaching is designed to make kids work out concepts for themselves rather than relying on them remembering our explanations. If the standard teaching approach for fractions has not worked for the kids who we are teaching then we need to do something different. This intervention program will show you how.

Fixing Misconceptions in Place Values to 1000

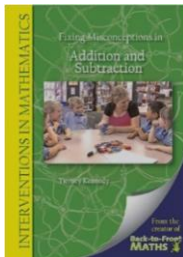


\$40.00

This intervention program provides detailed instructions to: Diagnose misconceptions that are stopping kids learning, confront misconceptions so that kids change their own minds and really understand the maths that we are teaching, extend the thinking of students who really understand Place Value while freeing up your time to provide targeted attention to those who don't.

Quantity, Partitioning and Relative Size concepts are all targeted within a clear and simple Developmental Sequence to catch kids up on what they are missing in Place Value.

Fixing Misconceptions in Addition and Subtraction

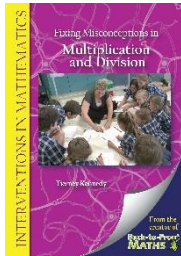


\$40.00

This intervention program provides step-by-step instructions to:

Diagnose misconceptions that stop kids learning
Confront student misconceptions so they change their own minds and truly understand the underlying principles
Extend the thinking of students who already understand Addition and Subtraction while freeing up your time to provide targeted attention where it is needed

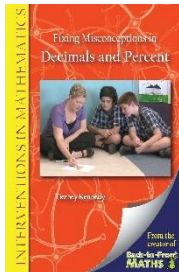
A clear and simple Developmental Sequence ensures student confidence in Quantity and Partitioning concepts so that you can start Fixing Misconceptions in Addition and Subtraction today.



\$40.00

Fixing Misconceptions in Multiplication and Division

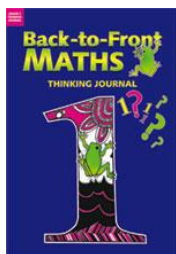
Part of the highly successful Interventions series, this book is targeted at students who have not developed multiplicative thinking.



\$40.00

Fixing Misconceptions in Decimals and Percent

The final book in the highly popular, Interventions in Mathematics Series, this book targets student misconceptions in decimals and percent.

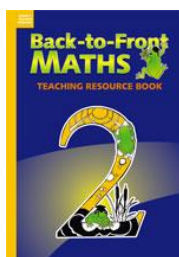


\$17.95 ea

Thinking Journal

Problem Solving tasks to help teachers uncover and address deeply held student misconceptions. Every problem is cross-referenced with both the content and proficiencies from ACARA. Each problem is designed to be adapted to suit both support and extension students in a single lesson to cater for differentiation. Targeted questioning leads students to develop Understanding based on mathematical principles.

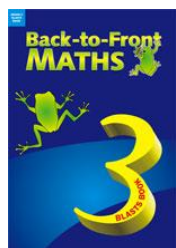
This book is sold separately for each year level (Year 1 through to 7).



\$79.95 ea

Teaching Resource Book

Explicitly demonstrate problem based pedagogy focusing on questioning, misconceptions and differentiation. Integrate fully with the Journal and Blasts Books. Contain alignment tables, lesson plans, criteria sheets, information about topics and additional real-life investigations. This book is sold separately for each year level (Year 1 through to 7).



\$15.95 ea

Blasts Book

Develop Fluency and Understanding through logical, leading questions that focus on mathematical patterns and underlying principles. Also contain challenging non-standard problems in a similar style to NAPLAN questions. This book is sold separately for each year level (Year 3 through to 7).

\$99.95 set

Teaching Resource Pack (3 books in set)

Pack contains Teaching Resource Book, Thinking Journal and Blasts Book for each year level (Year 3 through to 7), at a discounted price.



\$17.95

Single-digit matching cards

Play four different games that engage young children while reinforcing their understanding of single digit numbers! Each set contains four different representations of numbers - ideal for solidifying connections and promoting automaticity. Each game takes five minutes to play for groups between 2 and 6 players.



\$17.95

Two-digit matching cards

Challenge young minds to match multiple representations of two-digit numbers in four fast games designed specifically for use in rotation group time. Each set contains four different representations of numbers, including non-standard forms, to help solidify connections in place value. Each game takes five minutes to play for groups between 2 and 6 players.



\$17.95

Three-digit matching cards

Challenge young minds to match multiple representations of three-digit numbers in four fast games designed specifically for use in rotation group time. Each set contains four different representations of numbers with similar digits yet different amounts, including non-standard forms, to help solidify connections in place value. Each game takes five minutes to play for groups between 2 and 6 players - ideal for rotation activities.



\$17.95

Partitioning cards

Build connections between addition and subtraction with 11 different game variations from this once pack of cards. Partitioning is a key concept in number development for primary school children and pivotal for later understanding place value. Each game takes five minutes to play for groups between 2 and 6 players - ideal for rotation activities.



\$17.95

Make-ten dominoes game

Solidify partitioning and build automaticity with tens facts with this fun dominoes-style game. Work together as a team to connect all the cards together, joining pairs of numbers that add to give ten. Each game takes five minutes to play for groups between 2 and 6 players - ideal for rotation group activities.

**\$74.95
set of 5**

Five Card Games for Rotation Group Solutions

A complete Rotation Group Solution for Lower Primary Teachers. This game set contains five different card packs, with instructions for 25 different games and variations. Includes:

- Single-digit matching cards
- Two-digit matching cards
- Three-digit matching cards
- Partitioning Cards
- Make-ten dominoes game

AusPen

Prices are shown on the AusPen Order Form



AusPen Refillable WB markers

The Eco-Friendly Whiteboard Marker

The AusPen whiteboard markers are created with the purpose of keeping toxic waste out of local landfills and reducing the toxicity in our classrooms.

They are made for 100% recycled material, they use non-toxic ink, they're refillable and they are recyclable.

All marker pens are available with a Bullet Nib for bolder line, or a Chisel Nib for a finer line.

It is important to note that all the nibs are reversible, so they last twice as long and that our nibs are reinforced to prevent fraying. This provides for a longer lifespan, and retains a heavy writing line longer.

AusPen Kits



- The AusPen Kit includes 6 markers and 6 refill ink bottles
- We use moulded plastic for our cases so they are 100% recyclable.
- One AusPen Kit equals 246 disposable whiteboard (dry erase markers)
- Using one AusPen Kit keeps approximately 20 pounds of toxic waste out of the landfill.
- The budget savings is very attractive, as each pen costs close to 28 cents per pen
- The Kit includes six strong colours, or any variation of these six colours (fully customisable).

Refill Ink Bottles (23ml)

Available in the following colours:

- Black
- Blue
- Red
- Purple
- Orange
- Green



**Prices are
shown on the
AusPen
Order Form**

Eco-Stationery

The following Stationery Items are also available from AusPen:

- Whiteboard Magnetic Eraser with Felt
- Whiteboard Eraser Felt
- Eko Staple Free Stapler
- Recycled Nature Sticky Notes (75 x 75mm)
- Recycled Nature Sticky Notes (125 x 75mm)
- DL organic cotton pencil case