2023 Dr Paul Swan
Maths Resources Guide

www.drpaulswan.com.au

CATEGORY WINNER
EDUCATIONAL PUBLISHING AWARDS AUSTRALIA 2022

INSIDE

NEW RESOURCES IN 2023 FOR

- **Mathematics Vocabulary**
- **A Whole School Approach for Teaching Place Value**
- **NAPLAN-Style Word Problems**

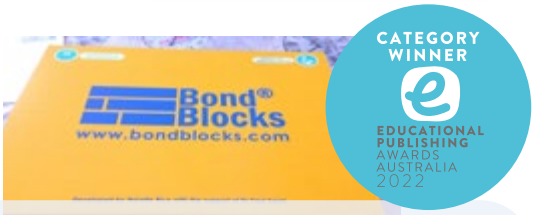
Welcome!

Hello! Hopefully you are looking forward to the year ahead with excitement. We're happy to be able to share the new materials we've been hard at work creating. In this year's guide we also have new **articles**, a helpful **poster** and **more** teaching ideas. As I write this at the start of the year, I know NAPLAN and other standardised tests (or the results of them) and version 9 of the Australian Curriculum are the big questions of the year. Luckily we have some items that will help there too.

Firstly, if you haven't been making use of the free downloadables on drpaulswan.com.au then you have an absolute treasure trove there to begin with. Our first freebie of the year is the first in our "A Look at the Australian Curriculum Version 9" series on Money.

As for NAPLAN - I urge you to check out the Video PL I have made together with my colleague Narelle entitled "Solving NAPLAN-style Word Problems" which is a full day length course with a support book and posters.

Finally, we have great news to share - last year our small team was on the podium when we took out a prize at the 2022 Educational Publishing Awards Australia for our Bond Blocks teaching and intervention program. We haven't rested on our laurels - Bond Blocks has been updated based on our 2022 experiences to be even better in 2023. Details further inside. We also received a 'highly commended' award for the Teaching Mathematics Through Story Books Series.



> "'Student Resource mathematics has a clear winner - no shortlist, straight to the winner - Bond Blocks"
> *-2022 Educational Publishing Awards Evening*

We'd like to thank everyone for your continued support.

Regards, ***Paul & Family***

You may not realise it but we run three websites:

- drpaulswan.com.au - the main site for resources/freebies/PL and the shop
- bondblocks.com - all of the teaching lessons and videos for the Bond Blocks System
- mathsmaterials.com - notes and help for choosing mathematics manipulatives with videos and printed articles.

Purchasing Resources & Finding Support

Where to go to get them

drpaulswan.com.au

Here you will find our web shop as well as a ton of free resources.

Other Details: Business Name: A-Z Type
ABN: 95 257 873 542

Teachers Pay Teachers
teacherspayteachers.com/Store/Dr-Paul-Swan

bondblocks.com

Bond Blocks activities, videos & differentiations.

mathsmaterials.com

Learn about maths manipulatives.
Generously supported by Edx Education.

Reading and Interpreting 'NAPLAN Style' Word Problems: A Few tips

Avoid teaching strategies that link key words to specific operations.

Consider the use of the word 'more' in the following word problems.

Michelle had 4 pencils and was given 3 more. How many does she have now?
Michelle has 8 pencils and I have 5 pencils. How many more pencils does Michelle have?

In the first example the implication is to add. Many students reading the word 'more' in the second example will automatically add the 8 and 5 to obtain an answer of 13. However, subtracting 5 from 8 will provide the correct answer of 3.

The assumption being made is that students actually read the question in full and understand the situation. Swan, no relation, (1990) noted that most word problems might be solved by cues, which he listed as:

- If there are more than two numbers, add them;
- If the two numbers are of similar magnitude, subtract the smaller from the larger;
- If one number is relatively large compared to a second number, divide; and
- If the answer has a remainder, cross out your work and multiply. (p. 60)

While these were written somewhat 'tongue in cheek' a review of many primary textbooks and worksheets indicates that in many cases these cues hold true. Swan concludes with a piece of advice:

"We now have considerable research evidence to suggest that to understand a mathematical concept it is better to work through a few well-chosen problems, than to work through lists of exercises. These problems must embody key concepts and be discussed and tackled in depth …" (p, 60).

Polya said something similar in his book, ***How to Solve it***.
"It is better to solve one problem five ways than five problems one way."

A single NAPLAN Style word question may be discussed as part of a warm up.

The good news is that there is a better approach to teaching students how to solve NAPLAN-style word problems. We have made a professional learning course that further delves into this, see page 7.

Reference: Swan, M. (1990). Becoming numerate: developing conceptual structures. In S. Willis (Ed). Being numerate: what counts? Victoria: ACER.

See where this can work in your whole-school plan on page 12!

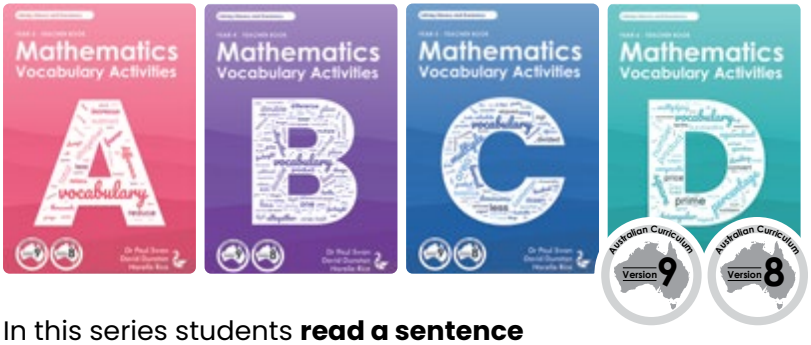
Mathematics Vocabulary Activities Series

Maths Literacies, Vocabulary • 40 pages

Years 3 - 6

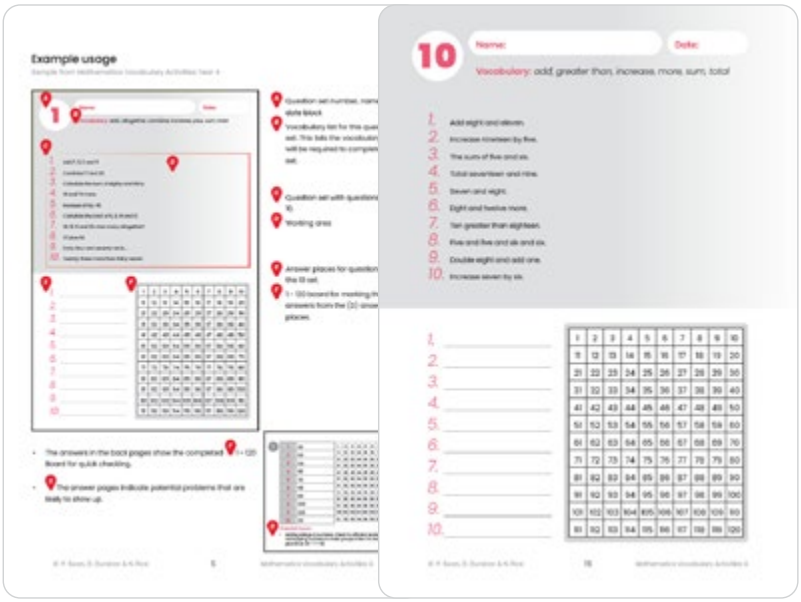
Teacher Books: $34 (inc. GST) | Student Books: $7.70

Teacher books

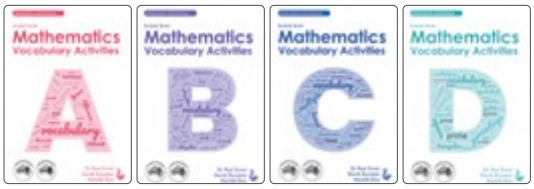


In this series students **read a sentence and complete the mathematics.** The words match appropriate language lists for that year level.

Each book contains 28 ten-question sets. The sets are self-checking through use of the on-page 1-120 number board where a pattern is formed from the answers to the questions. Includes planning ideas for teachers and a 'likely difficulties' section to identify the cause of common student mistakes. The student book includes only the question sets in black and white.

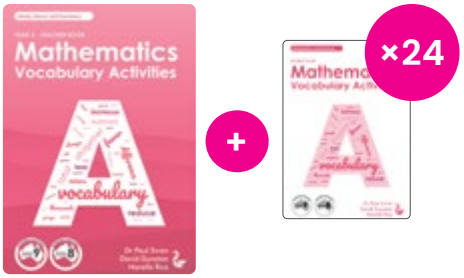


Student books



Bundles

Mathematics Vocabulary - Year 3/4/5/6 Kit Bundles



- Teacher Book
- Student Books x 24
- eBook (School Licence)
- Answers Powerpoint (for showing students)

Year Kits: $250

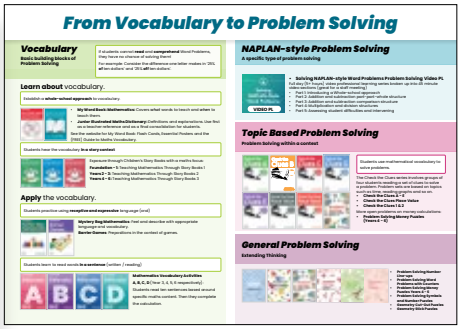
Self Checking Answers!

1	35. 34, 33
2	44, 54, 64
3	36
4	66
5	42
6	46
7	32
8	56
9	52
10	62

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Getting the most out of it

You will gain the most from these books if they are used as part of a whole school approach to the literacies of mathematics. See pages 12 - 15 for an overview of **moving from vocabulary to problem solving**.



Teaching Place Value Series

Place Value • 36-58 pages

Years 1 - 5

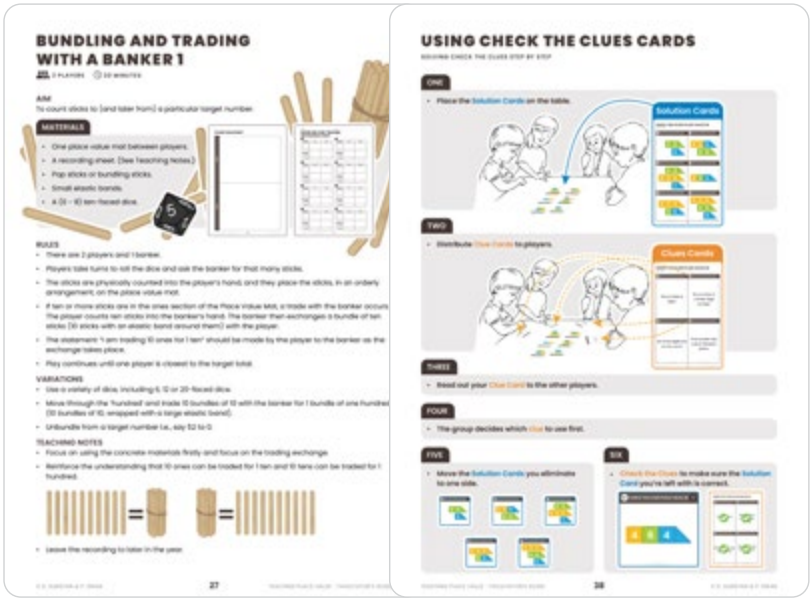
$28.60 (inc. GST) - $41.00 ea.

This series of books is designed to support a **whole school approach to the teaching of place value**.

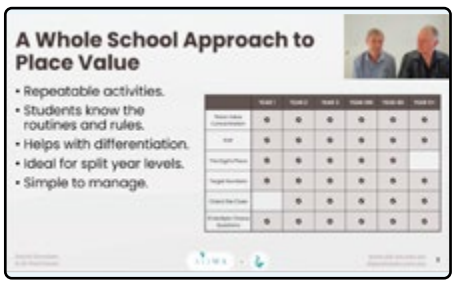
Plans, assessments and activities are provided for each year level. Using these resources teachers will be able to differentiate activities to meet the needs of students.

Activities use simple materials and are ideal as short warm-ups and can form the basis for an entire lesson.

Activities



Videos



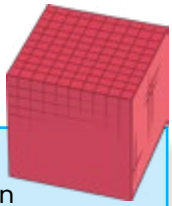
Watch the short **videos** on how to play the activities.

Bundle

Teaching Place Value Series - School Bundle

Includes:

- Teaching Place Value Year 1
- Teaching Place Value Year 2
- Teaching Place Value Year 3
- Teaching Place Value Year 4 Whole Numbers
- Teaching Place Value Year 4 Decimal Numbers
- Teaching Place Value Year Year 5+



Did you know: One common misconception students often have is that they think the large Base Ten Block (Cube) shows 600 as they see 6 faces of 100 rather than 10 layers of 100.

My Philosophy: PL should never be a disembodied voice reading off a boring powerpoint!

I aim to not only be engaging, but also to leave you with something practical you can use in your school.

PL Calendar: drpaulswan.com.au/professional-learning

Live PL

Last year really was a return-to-normalcy in respect to going out to schools. If you're interested in getting me out to your school, reach out at paul@drpaulswan.com.au. Check the website for public PL events.

Fair warning - many prime dates will already be booked by the time you read this! Luckily there are some other options:

Live Remote PL (Videoconferencing)

This method worked out really well during COVID and I'm continuing to offer it. I've found it really good particularly for shorter PL like after-school sessions. Save on travel costs and time!

This year we are offering Live Remote PL sessions on a variety of topics that anyone can join. See the PL calendar for a list of sessions.

PL Ideas Menu:

Here are some of the most common PL topics you may be interested in:

After School

- Classroom Maths Games
- Maths Vocabulary (45m)
- Warm ups
- Basic Facts

Half-Days & Full Days

- Maths Vocabulary
- Solving NAPLAN-style Word Problems (also available as a Video PL)
- A Whole School Approach to ...
- High Impact Teaching Strategies

Pre-Recorded Video PL

Access world-class professional learning on-demand. These engaging sessions provide schools with the flexibility to **watch and re-watch** for a full year from purchase.

Visit www.drpaulswan.com.au and take a look at the Video PL section or read the next page. Completed courses award certificates for participating staff.

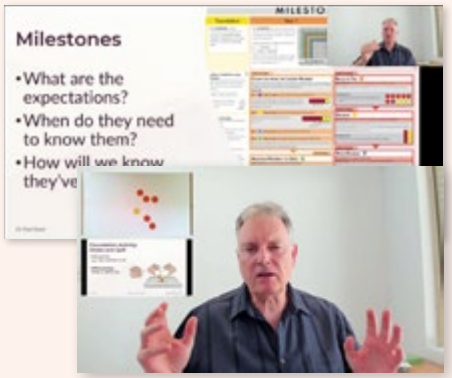
These ~45 minute runtime videos suit the staff meeting timeslot.

Free videos can also be found at drpaulswan.com.au/videos including webinars on common materials

About Video PL

Running sheets, equipment lists and handouts are included so that teachers do not simply watch the video but actively participate in the PL.

Visit www.drpaulswan.com.au and take a look at the Video PL section.



Currently 8 PL courses to choose from

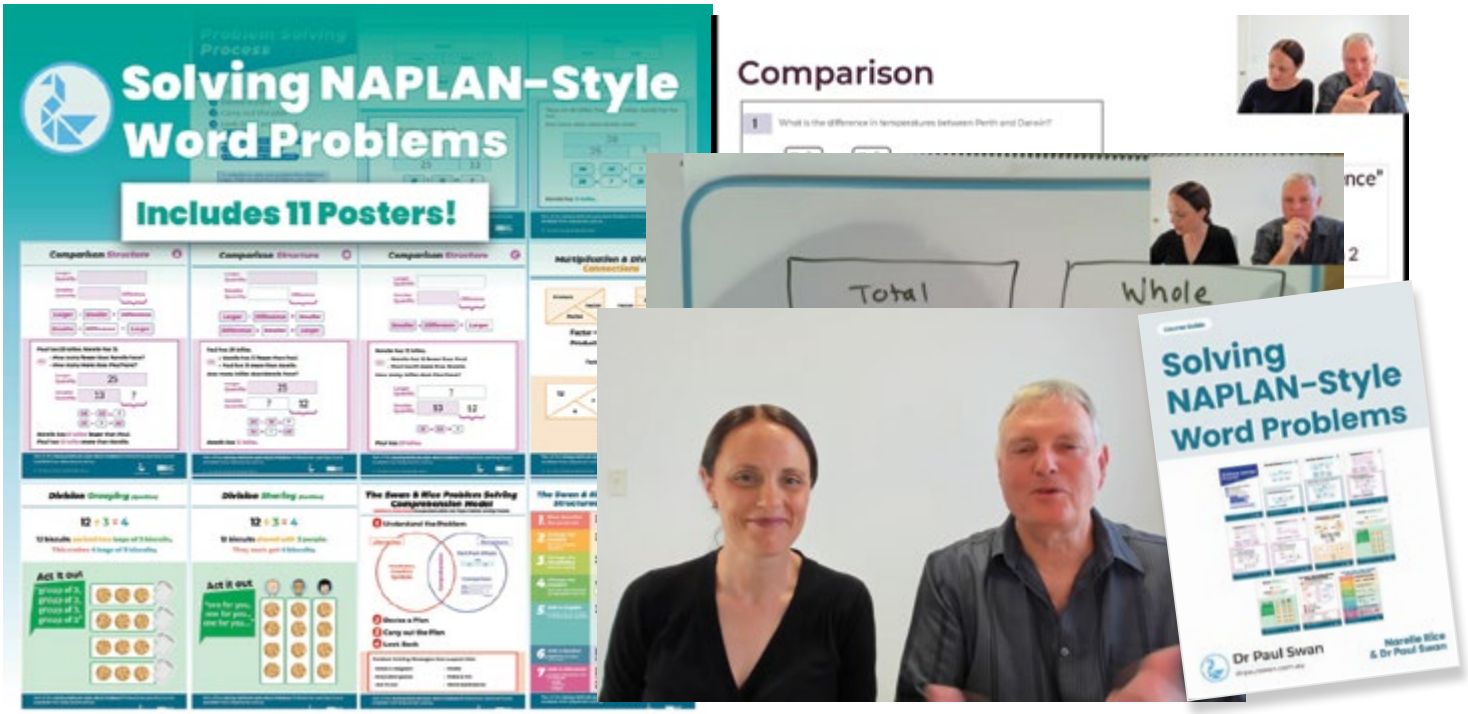
- Mental Warm Ups and Maths Talks
- Comprehension of Word Questions Vocabulary
- Basic Facts with Milestones Introduction
- MORE Mental Warm Ups and Maths Talks
- Geometry
- Measurement
- Classroom Maths Games

New! Solving NAPLAN-style Word Problems Video PL – 5 hour course (Individuals and Schools)

This PL course is all about solving the kind of word problem that comes up in standardised testing. Dr Paul Swan and his colleague Narelle Rice systematically demonstrate how to use a diagrammatic (aka Singapore Maths) bar model approaches to solving NAPLAN-style word problems. They analyse the mathematics behind the various questions and explain the understanding and reasoning required to solve them.

Each video in the series comes with sample questions, support posters and documentation. School leaders may ask staff to watch a video, try the ideas and report back before watching the next video.

Includes a **5 hours of video, activities**, a **40 page course book, 11 high-quality posters** and certificate.



Bundles

Bundles are where we have collected some materials that work well together into one item.

Some examples:

- "Best books to have as eBooks" bundle
- "Mathematics Vocabulary" bundle

Solutions

Solutions are sets of materials that work together targeting specific areas, with some (or a lot) of teaching assistance to go with it. We have two types:

- **Free-form** solutions: These are groups of materials that you can pick and choose from, depending on your needs. Example: Mathematics Vocabulary
- **Comprehensive** solutions: These are closer to full programs that extensively cover the topic
- Example: Intervention using the Bond Blocks system

Mathematics Vocabulary Bundle

Bond Blocks Counting to 10

Vocabulary solution teaching page

IETPL / Julie Richards Numero

Numero® has been designed for use by students of all ages, and assists in developing understanding of numeracy concepts and problem-solving skills.

Watch Julie and Paul discuss the effective use of Numero

Numero® Cards

Addition, Subtraction, Basic Facts, Multiplication

Numero® is an excellent mental maths class resource, ideal for differentiating work for all ability levels in your classroom. A class set contains 15 packs of cards.

Single Pack: **$17.95** (inc. GST) | DPS3100
Class Set (15): **$249** (inc. GST) | DPS3100-15

Numero® Demo Pack

1 pack of giant Numero® cards (A5). Excellent for class and group demonstration.

$39.95 (inc. GST) | DPS3100-J

400 Numero® Challenges

A book full of Numero® challenges at varying levels of difficulty. Perfect for daily or weekly use or for competition training.

$42.95 (inc. GST) | DPS3101

Counting to 10 Pre-Foundation Class Kit

Includes Assessment Checklists

These resources systematically **target the major predictors of difficulties in mathematics** in Pre-Foundation (Ages 4+) using a Concrete-Representational-Abstract approach.

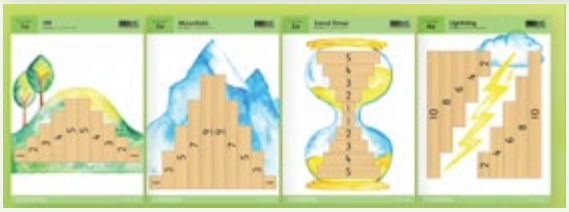
Extend counting to include number line thinking, identifying the greater of two numbers and missing number sequences including before and after.

This Class Kit includes everything a classroom needs to implement "Counting to 10 with Bond Blocks: Pre-Foundation" working in rotations with 4 - 8 students:

(i) Student led play using the Introductory Activities,

(ii) Guided play using the Activity Cards, and

(iii) Teacher led instruction Counting Activities.



Some of the Bond Blocks Counting to 10 Activity Cards

$430 inc. GST

Progression of Play

Student Led Play	Guided Play ↔ Games	Teacher Led Instruction
Introductory Activities	Activity Cards	Counting Activities

Counting to 20 Foundation Class Kit

Includes Assessment Checklists

Develop understanding and fluency connecting number names, numerals and quantities for the difficult teen numbers using a Concrete-Representational-Abstract approach.

Extend counting from 10 to 20 and beyond to include number line thinking and missing number sequences including identifying the number before and after. For Ages 5+

This Class Kit includes everything a classroom needs to implement "Counting to 20 with Bond Blocks: Foundation" working in rotations with 4 - 8 students engaging in:
(i) Student led play using the Introductory Activities,
(ii) Guided play using the Activity Cards and
(iii) Teacher led instruction Counting Activities.

$430 inc. GST

These resources then lead into the Bond Blocks Core Kit which may be used for Tier 1 teaching or Tier 2 & 3 Intervention

Building a Learning Program

> *'Student resource (for) mathematics - numeracy' has a clear winner - no shortlist, straight to the winner - Bond Blocks*
>
> *- Michael Gordon-Smith, Chief Executive of the Australian Publishers' Association at the 2022 Educational Publishing Awards*

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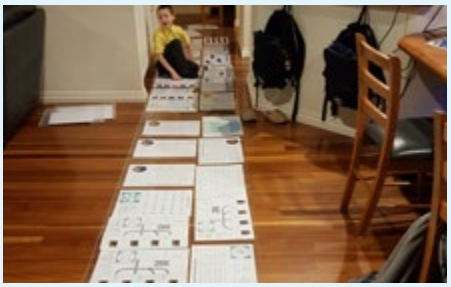
EDUCATIONAL PUBLISHING AUSTRALIA 2022

I first came up with the idea behind Bond Blocks in 2016. Previously my role involved working with staff and students in primary school and lower secondary maths, at a support and extension level. During this time I also worked in a maths clinic with Paul Swan. I was struck over and over with the stark contrasts between those who 'got' maths and those who found it really hard. I kept noticing students using inefficient methods, such as counting in ones on their fingers to complete simple calculations. I looked high and low for resources to help. Compared to literacy there was a complete lack of high-quality resources to choose from. So, I got inspired and set about working to 'be the change'.

During this time in my personal life my son had been diagnosed with an overwhelming number of challenges including Level 3 High Functioning Autism. I was head and heart deep in therapy and learning how to best support neurodiverse children.

It was the colliding (honestly, quite painfully) of these worlds that led to the creation of Bond Blocks. With the support of my husband (going to Bunnings to buy wood) and help from my two kids (I still remember them sitting outside sanding the prototype blocks with me, getting sawdust up their noses) Bond Blocks was born. They have become my third child. I took the idea to Paul and as they say - the rest is history. Well not quite - after extensive trialling, revising, learning a bunch of new skills including website development and making hundreds of videos – after an 8-year gestation period of labour and love, Bond Blocks were born.

The original Bond Blocks



Making the first activity boards

Along the way I have met and worked with some wonderful people. These include Murray Jackson from Edx Education, who supported me with his manufacturing expertise and literally hundreds of teachers and Education Assistants who have adopted Bond Blocks as either an intervention tool or more recently as a prevention tool. Through this journey Paul, and his entire family, with their diverse skills sets, have supported and nurtured both Bond Blocks and me. The result is an award-winning product sold right across Australia.

Thank you for your continued support. It is my hope that through Bond Blocks both students and teachers all around Australia, will feel supported to grow in their curiosity and confidence in this beautiful thing we call maths.

Bond® Blocks

Information Overview

BUILDING STRONG MATHEMATICAL FOUNDATIONS

Developed by Narelle Rice
with the support of Dr Paul Swan

Core Kit

Year 1 - 3 Addition and Subtraction

Curriculum Linked

Australian Curriculum Version 9 | Australian Curriculum Version 8

Tier 1: Mental Maths Years 1 - 3
Tier 2/3: Intervention

Counting to 10

Pre-Foundation

EYLF aligned

Tier 1: Class Teaching (Pre-Foundation)
Tier 2/3: Intervention

Counting to 20

Foundation

EYLF aligned

Tier 1: Class Teaching (Foundation)
Tier 2/3: Intervention

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WINNER of the 2022 Primary Student Resource Mathematics (Numeracy) Award

100+ Sequenced Lessons with Activity Boards and Teaching Videos

Suitable for:

- Class Teaching Tier 1 *-or-*
- Tier 2 & 3 Intervention

- ✓ Placement test
- ✓ Monitoring tools
- ✓ Created with evidence-based methodology
- ✓ Curriculum linked & sequenced
- ✓ Differentiated
- ✓ Developed to support learning difficulties
- ✓ Explicit teaching
- ✓ Whole school approach
- ✓ Support for regional schools
- ✓ Continuity through staff turnover

Visit the website for more information
www.bondblocks.com

From Vocabulary t

Vocabulary

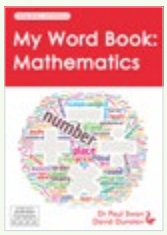
Basic building blocks of Problem Solving

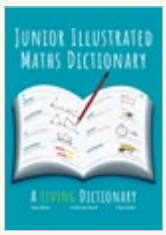
If students cannot **read** and **comprehend** Word Problems, they have no chance of solving them!

For example: Consider the difference one letter makes in '25% **of** ten dollars' and '25% **off** ten dollars'.

Learn about vocabulary.

Establish a **whole-school approach** to vocabulary.





- **My Word Book: Mathematics:** Covers *what* words to teach and *when* to teach them.
- **Junior Illustrated Maths Dictionary:** Definitions and explanations. Use first as a teacher reference and as a final consolidation for students.

See the website for My Word Book: Flash Cards, Essential Posters and the (FREE) Guide to Maths Vocabulary.

Students hear the vocabulary **in a story context**

Exposure through Children's Story Books with a maths focus:

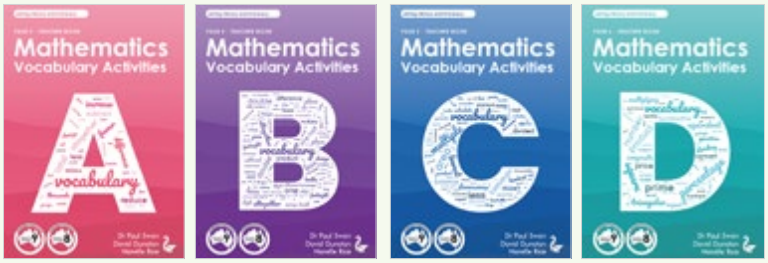
Foundation - 1: Teaching Mathematics Through Story Books 1
Years 2 - 3: Teaching Mathematics Through Story Books 2
Years 4 - 6: Teaching Mathematics Through Story Books 3

Apply the vocabulary.

Students practice using **receptive and expressive** language (oral)

Mystery Bag Mathematics: Feel and describe with appropriate language and vocabulary.
Barrier Games: Prepositions in the context of games.

Students learn to read words **in a sentence** (written / reading)



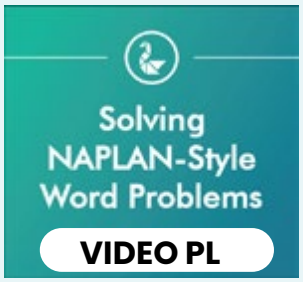
Mathematics Vocabulary Activities

A, B, C, D (Year 3, 4, 5, 6 respectively): Students read ten sentences based around specific maths content. Then they complete the calculation.

to Problem Solving

NAPLAN-style Problem Solving

A specific type of problem solving



- **Solving NAPLAN-style Word Problems Problem Solving Video PL**

Full day (5+ hours) video professional learning series broken up into 45 minute video sections (great for a staff meeting)

- Part 1: Introducing a Whole-school approach
- Part 2: Addition and subtraction part-part-whole structure
- Part 3: Addition and subtraction comparison structure
- Part 4: Multiplication and division structures
- Part 5: Assessing student difficulties and intervening

Topic Based Problem Solving

Problem Solving within a context

Students use mathematical vocabulary to solve problems.

The Check the Clues series involves groups of four students reading a set of clues to solve a problem. Problem sets are based on topics such as time, reading graphs and so on.

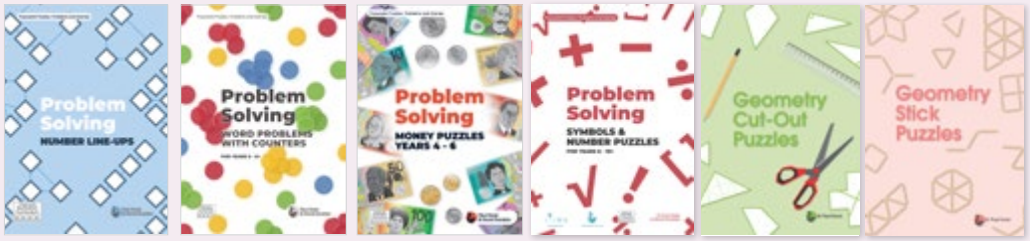
- **Check the Clues A - E**
- **Check the Clues Place Value**
- **Check the Clues 1 & 2**

More open problems on money calculations:

- **Problem Solving Money Puzzles (Years 4 - 6)**

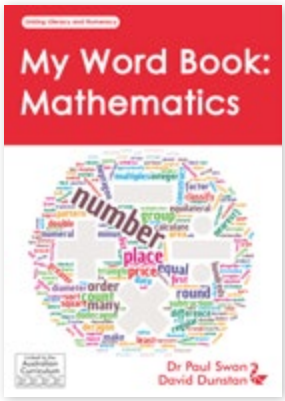
General Problem Solving

Extending Thinking



- **Problem Solving Number Line-ups**
- **Problem Solving Word Problems with Counters**
- **Problem Solving Money Puzzles Years 4 - 6**
- **Problem Solving Symbols and Number Puzzles**
- **Geometry Cut-Out Puzzles**
- **Geometry Stick Puzzles**

ESTABLISHING A WHOLE SCHOOL APPROACH TO VOCABULARY



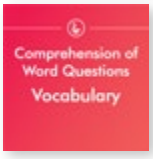
My Word Book: Mathematics

PP/F - Year 7

(DPS1033) Early Number, Geometry, Mathematics Literacies, Money, Number/Algebra, Place Value, Probability/Statistics • 48 pages

This book provides a framework to help teachers focus on specific mathematical vocabulary.
Features: Lists for all topics organised by year level. A focus on vocabulary is required to complete questions & lists of essential vocabulary. Includes a section on NAPLAN related vocabulary.

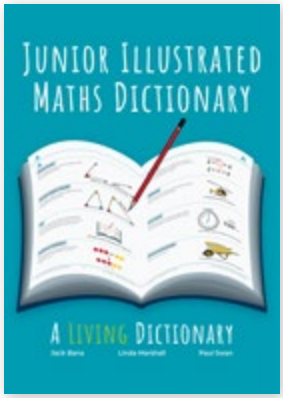
Companion Items:
Flash Cards



Video PL: Comprehension of Word Questions Part 1 - Vocabulary

Staff Meeting Replacement

Vocabulary is the first step in the comprehension of word questions. In this 45-minute video PL module, Paul delves into vocabulary with a focus on its link with word questions.

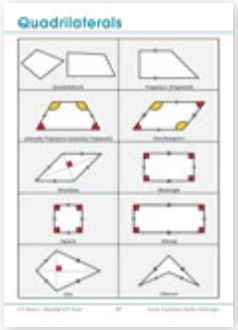


Junior Illustrated Maths Dictionary

Year 1 - Year 3

(DPS1026) The Living Mathematics Dictionary

The Junior Illustrated Maths Dictionary covers all of the maths terms and concepts required in the junior primary years. Each word is clarified with engaging illustrations.



Marzano (2004) suggests six steps when learning vocabulary, the **last** of which builds toward a formal definition **only after prolonged exposure to the word**.
Marzano, R. J. (2004). *Building background knowledge for academic achievement: Research on what works in schools.* Alexandria, VA: ASCD.

HEAR THE WORDS IN A STORY CONTEXT

Teacher Tip: When introducing new words write them on the Board. Give one student a whiteboard marker and ask the student to run up to the board and place a tally mark next to the word EVERY time you use it in a lesson. Other students will be watching out in case any are missed.

Teaching Mathematics Through Story Books

Dr Paul Swan, Sheila Griffin, Linda Marshall, Kristin Humphreys

Book 1 (Foundation - Year 1) Maths Literacies • 48 pages
Book 2 (Year 2 - Year 3) Maths Literacies • 64 pages
Book 3 (Year 4 - Year 5) Maths Literacies • 56 pages

See also: Free Webinar
Dr Paul Swan Youtube

Children's story books are a fantastic tool in every teacher's toolbox. These books take many of the most popular story books and provide a number of mathematical activities for students to do based within each story book. Includes copiable resources to make using the activities a breeze.

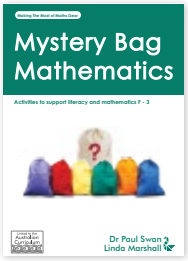
STUDENTS USE RECEPTIVE AND EXPRESSIVE LANGUAGE TO APPLY THE VOCABULARY

Barrier Games

Year 1+

(DPS1001) Geometry, Mathematics Literacies, Measurement • 48 pages

This book is full of Barrier Game activities (think Battleship). Students will be using expressive and receptive language as they describe what to build or draw. Changing what is placed on either side of the barrier will change the mathematics involved. Altering the language expectations will help teachers differentiate the task for different groups of students. How to do this is all laid out in this 48 page book.



Mystery Bag Mathematics

PP/F - Year 3

(DPS1034) Activities to support literacy and mathematics F-3 • 44 pages

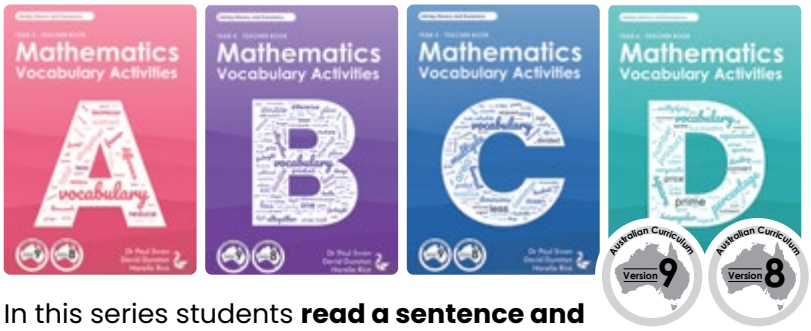
Learn how to fully utilise the Mystery Bag in your class with this comprehensive book. Build Mathematical Vocabulary as students place their hand into the bag and use oral language to describe the features of what they feel. A variety of Curriuclum content from Foundation to Year 3 is covered. Topics include: addition, subtraction, multiplication and division, counting, money, measurement (length), geometry (2D shape and 3D objects) and probability. Each activity includes specific mathematical vocabulary to use.

STUDENTS APPLY THE VOCABULARY TO COMPLETE SHORT WORD PROBLEM SENTENCES

Mathematics Vocabulary Activities Series

Years 3 - 6

Maths Literacies, Vocabulary • 40 pages



In this series students **read a sentence and complete the mathematics.** The words match appropriate language lists for that year level.

Each book contains 28 ten-question sets. The sets are self-checking through use of the on-page 1-120 number board where a pattern is formed from the answers to the questions. Includes planning ideas for teachers and a 'likely difficulties' section to identify the cause of common student mistakes. The student book includes only the question sets in black and white.

Self Checking Answers!

1	35. 34, 33
2	44, 54, 64
3	36
4	66
5	42
6	46
7	32
8	56
9	52
10	62

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

WANT MORE?

Check out the vocabulary solution page at drpaulswan.com.au/solutions/maths-vocabulary-solution/ and download the free **Guide To Mathematical Vocabulary**. It contains a sample of activities you can use in your class.

Warm Ups are short activities that can be used to review previously taught material or set the scene for a lesson or preload some content (for example, vocabulary) for an upcoming lesson.

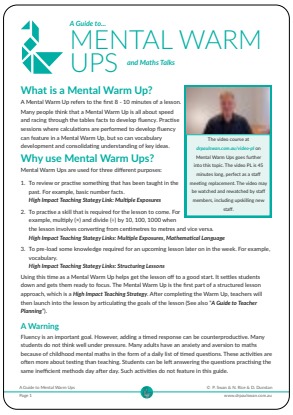
For further explanation of the value of Warm Ups see **A Guide to Warm Ups**, which may be downloaded from drpaulswan.com.au/resources

To be effective Warm Ups need to be quick - around 8 minutes - and therefore cannot use too much in the way of manipulatives. Dice, cards, counters and spinners work well. We have developed an **Essential Maths Pack** containing these materials that can be shared among two students and comes with a download for a number of activities.

The Essential Maths Pack - great for tutors and relief or one per student

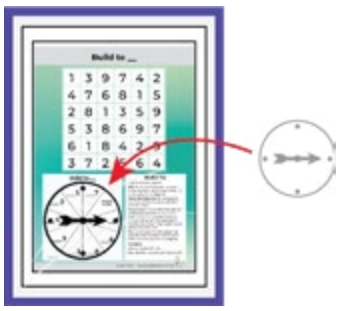
Warm Ups Video PL

There are also two Professional Learning Videos that I have made on the topic. Each runs for about 45 minutes so it can be viewed in a staff meeting, and staff can rewatch any time.



Spinners

A Transparent **Round Spinner** may be placed on top of a template or game board and then flicked. The spinner comes with four rubber feet which need to be stuck at the edge of the spinner in the 12 o'clock, 3 o'clock, 6 o'clock and 9 o'clock position. This helps keep the spinner in place if it sits on top of a **write n wipe sleeve** or a laminated game. Write n Wipe sleeves are available in A4 and A3 size. This makes them ideal for both our downloadable A4 games and A3 games.



Plastic Spinner Arrows (pack of 40)

$13.50 (40 pieces) (inc. GST)
DPS3009

Use these spinner arrows to make your own games. Pair with the downloadable games on the site.

Suction Spinner (pack of 10)

$15.00 (10 pieces) (inc. GST)
DPS3014

These spinners stick well to smooth surfaces (including write & wipe sleeves and number boards).

Best Seller

Round Spinner (pack of 5)

$13.00 (5 pieces) (inc. GST)
DPS3010

Each spinner has a plastic circular base (92 mm diameter), feet included on a stick-on sheet.

Picking the right spinner:

- Plastic Spinner - ***Laminate*** a game and punch a hole.
- Suction Spinner - Sticks to ***Write and Wipe Sleeves*** or ***Whiteboards***.
- Round Spinner - General purpose. Sits on top of ***printed / laminated games or Write and Wipe Sleeves.***

Counters

The **two colour counters** (25 mm) in the Essential Maths Pack are opaque - red on one side and yellow on the other - whereas the 19 mm **transparent counters** are blue and green so as to avoid any confusion about the counters required for the activity. When playing a game the 19 mm fit nicely on the board and one player is green and the other blue.

A series of A4 three in a row games may be downloaded from drpaulswan.com.au/resources

The games Shake and Spill and Lulu may be played with the red/yellow two colour counters. Watch these at drpaulswan.com.au/videos

Two Colour Counters (200 pieces)

$15 (200 pieces) (inc. GST)
DPS3008

Great for sorting and general game use. 200 two-colour (25mm diameter) counters, red on one side and yellow on the other.

Transparent Counters

$4 (100 pieces) (inc. GST)
DPS3007

$36 (1000 pieces) (inc. GST)
DPS3007-10

100 transparent counters in 4 colours (25 of each). 19mm across.

Dice

The Essential Maths Pack comes with two six-faced dot dice in two different colours. This allows for flexibility in playing a range of dice games. Likewise, the three ten-faced dice, numbered 0 – 9 are ideal for playing place value games.

We have four separate books to help you make the best use of your dice:

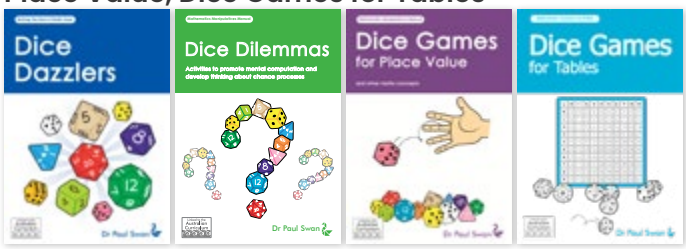
- **Dice Dazzlers,**
- **Dice Dilemmas,**
- **Dice Games for Place Value,**
- **Dice Games for Tables.**

Dice can be used for a lot more - the **Pocket Dice** in particular can be used for activities and games involving shape, money, time, and more. The **Pocket Dice Books** will get you started.

Pocket Dice A, B and C

Book A (DPS1039) **64 pages** - eBook $26 | Book $41
Book B & C (DPS1040, DPS1041) **48 pages**
- B & C eBooks $22 | Book $34

Dice Dazzlers, Dice Dilemmas, Dice Games for Place Value, Dice Games for Tables



Basic Classroom Dice Set

$38.50 (inc. GST) | DPS3012

48 dot-dice in four colours and 24 ten-sided dice in two colours.

Comes in a durable, hinged container.

Teacher Tip: Encourage students to roll dice from one hand into the other hand. It will save dice rolling onto the floor.

Pocket Dice

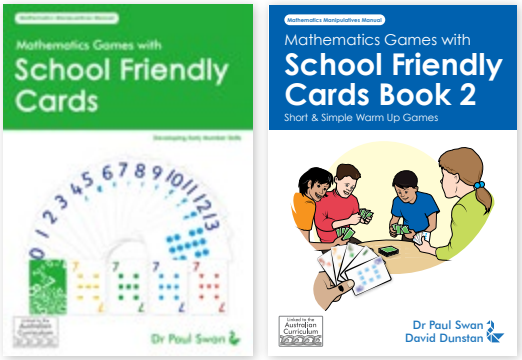
$10.00 ea (inc. GST)
ERPCD

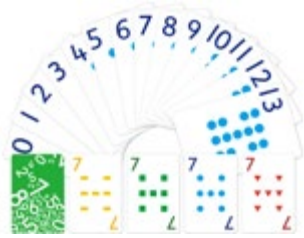
Teacher Tip:

Pocket Dice are a versatile manipulative. For example; if you want a higher chance of a certain result, you can slide in multiple copies of the same card in different pockets. This can provide an informal exposure to probability concepts.

School Friendly Cards

Simple card games are an ideal form of warm up. Activities for games may be found in **Maths Games with School Friendly Cards book 1** and **Book 2**. These cards may be used in small puzzles. See drpaulswan.com.au/resources where you can download two booklets of School Friendly Card puzzles and associated PowerPoints that you can show as part of a Warm Up.





School Friendly Cards

School Friendly Cards (Pack of 8 or 12)

Jumbo School Friendly Playing Cards

Jumbo School Friendly Cards

$16 (1 pack) (inc. GST) | DPS3003-J

An extra large version of School Friendly Cards ideal for use with young children (on the floor) or demonstrating to a whole class.

School Friendly Cards

Individual pack: $5.50 (inc. GST) | *item code*: DPS3003
8 pack set: $44 (inc. GST) | *item code*: DPS3003-8
12 pack set: $66 (inc. GST) | *item code*: DPS3003-12
100 packs: $500 (inc. GST) | *item code*: DPS3003-100
NOTE: These are individual packs, not in plastic containers.

Best Seller

School Friendly Cards are just playing cards but without any of the links to gambling. There are no picture cards – Just numbers to 13 (including a zero card). There are no suits, just shapes configured in standard subitising patterns and four different colours. This makes introducing cards to students a lot simpler. You can play all of the traditional card games like snap, fish and more using these easy-to-use cards.

Bead Strings

Typically, these come with 20 beads on the string in a 5 red, 5 white configuration. You can also buy 100 bead strings in a 10 red 10 white place value configuration.

Teacher Tip: I like to add and extra 20 beads to create a 120 bead string as many students count 109, 200.

Bead String 1 - 20

$3 (single) (inc. GST) DPS3004
$27 (10) (inc. GST) DPS3004-10

20 Beads on a lace: Alternating red and white in groups of 5.

Long Bead String 1 - 100

$12 (single) (inc. GST) | DPS3005

100 Beads on a lace: Alternating red & white in groups of 10.

Ideal for place value.

50 Bead String Activities Cards

$33.00 ea (inc. GST)

These A5 sized, full colour, laminated cards cover a variety of manipulative materials.

A Junior Learning product.

Beadstring Mathematics

$34 (single) (inc. GST)
DPS1003

This book shows how to move from counting to calcuating using a simple twenty beadstring.

Planning for Warm Ups

A simple four by four cycle works well when to comes to planning Warm Ups. See the free **Guide to Teacher Planning** for how you would use warm ups in your planning. Essentially teachers might plan to play the same game for four days in a row e.g. Monday, Tuesday, Wednesday Thursday or perhaps play the same dice game Monday week 1, week 2, week 3 and week 4, a card game every Tuesday for four weeks, a spinner game every Wednesday for four weeks and so on.

Other Great Materials

Rowco Card Game

Best Seller

Year 3+

Individual pack: $5.50 (inc. GST) | DPS3001
8 pack set: $44 (inc. GST) | DPS3001-8
12 pack set: $66 (inc. GST) | DPS3001-12

Rowco Single Pack

Rowco (Rows and Columns) is a strategy game ideally played between pairs of students. Players scan either a row or column to determine the best move. Players will be adding numbers and be exposed to negative numbers while using reasoning to maximise their score. Strategy is important; at times students may need to sacrifice a card in order to improve their overall chances of picking up a card of higher value.

Teacher Tip: Once students are familiar with the standard game of ROWCO, change the rules so that players are aiming for the smallest total or the total closest to zero.

A video explanation of how to play ROWCO can be found on youtube.com/drpaulswan

Combo Card Game

Best Seller

Year 3+

more games at drpaulswan.com.au/resources

Combo

Combo 8 or 12 pack

Individual pack: $5.50 (inc. GST) | DPS3002
8 pack set: $44 (inc. GST) | DPS3002-8
12 pack set: $66 (inc. GST) | DPS3002-12

A game for 2 - 4 players, COMBO is designed to get students using all of the basic operations (+ - x and ÷).

Play a number different games with the same pack of cards! COMBO (the original game), COMBO: One More One Less, COMBO: Total 20, Total 18 and Total 10 can all be played using the rulesheets downloaded from the drpaulswan website. Videos for how to play each game can be found at drpaulswan.com.au/videos

Write n Wipe Sleeves (A4 / A3)

A4 (pack of 10): $33.00 (inc. GST) | ERWNWA35
A3 (pack of 5): $24.20 (inc. GST) | ERWNW10P

Slide in our free games! Pairs well with **Round Spinners** (DPS3010) to sit on top and play.

An Elizabeth Richards product.

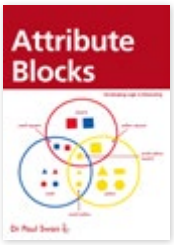
Pegs on a String

$13 (single) (inc. GST) | DPS3016

Teach number line principles with pegs on a string.

**Number cards not included.*

Dr Paul Swan Books. eBooks are also available online with options for schools and institutions that allow for wider photocopying and storage options. Add an eBook copy to any printed book for an additional $10. Purchase at **www.drpaulswan.com.au**



Attribute Blocks

Ages 5+

(DPS1000) Maths Literacies, Problem Solving • 48 pages

eBook $22 | Book $34

Attribute Blocks are shapes (5 types) that come in two different sizes, three colours and two thicknesses. These varous attributes allow students to perform simple to more complex sorting tasks as outlined in this book. Students will learn some basic coding ideas as well as how to problem solve and think logically.

Barrier Games

Year 1+

(DPS1001) Geometry, Mathematics Literacies, Measurement • 48 pages

eBook $22 | Book $34

This book is full of Barrier Game activities (think Battleship). Students will be using expressive and receptive language as they describe what to build or draw. Changing what is placed on either side of the barrier will change the mathematics involved. Altering the language expectations will help teachers differentiate the task for different groups of students.

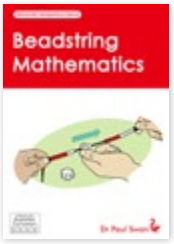
Base Ten Blocks

Year 1+

(DPS1002) Addition, Division, Multiplication, Place Value, Subtraction • 36 pages

eBook $19 | Book $28.6

Base Ten Blocks or MAB (Multibase Arithmetic Blocks) are used to improve students' understanding of Place Value. This book will help teachers make the most from using these blocks. Move from place value to calculation using the blocks in conjunction with ideas in this book. This book also illustrates how concepts such as percentages may be explained using Base Ten Blocks.



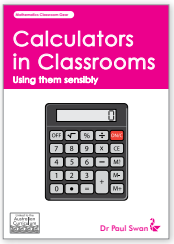
Beadstring Mathematics

Years F - 3+

(DPS1003) Counting, Addition, Subtraction, Multiplication, Place Value • 48 pages

eBook $22 | Book $34

This book shows how to move from counting to calcuating using a simple twenty beadstring. While the one hundred beadstring is featured most of the activities and games are played with a standard twenty beadstring.



Calculators in Classrooms

Year 2+

(DPS1005) Number/Algebra, Problem Solving • 48 pages

eBook $22 | Book $30.80

Calculators are often depicted as eroding students' basic number skills. The focus of this book is building students' number sense so that they use calculators sensibly. A section called "Beat the Calculator" is designed to encourage students to use their mental skills first. There are also sections on problem solving and generating patterns.

Card Capers

Year 1+

(DPS1006) Addition, Card Games, Geometry, Multiplication, Place Value • 48 pages

eBook $19 | Book $29.50

Standard playing cards are a cheap and versatile resource that can be used for short and simple warm up games to develop fluency with basic number facts. Students will need to learn a few basic rules and then they will be up and playing. Recording sheets are provided to use as evidence of student progress.

Check the Clues 1 & 2

Year 1 - Year 7

eBook $15

These ebooks have been created to encourage students to use their Problem Solving and Reasoning skills, two of the Proficiency Strands of the Australian Curriculum. Check the Clues 1 ebook is suited to younger children Years 1 to 3 and Check the Clues 2 is aimed at students in Years 4 to 7.

Check the Clues Series: Books A - E

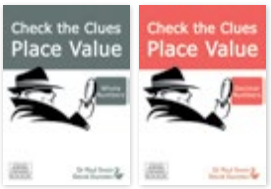
eBook $31 | Book $45 PP/F+

Based on **Polya's four step approach to Problem Solving,** students work in groups of four to solve word problems.

("Check the Clues" videos online)

Improve mathematical literacy of your students while solving problems. Linked to the Australian Curriculum.

Answers and teacher notes provided.



Check the Clues Place Value: Whole Numbers & Decimals

Year 3 - Year 7

(DPS1013 & 1014) Place Value, Problem Solving, Mathematical Vocabulary • 48 pages

eBook $22 | Book $34

These two books help students build a better understanding of solving word questions, while at the same time improving student's Place Value understanding.

Colour Tiles

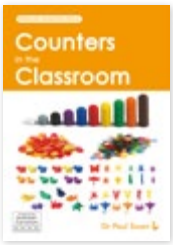
Year 1+

(DPS1015) Addition, Fractions/Decimals, Multiplication, Probability/Statistics • 48 pages

eBook $22 | Book $34

Colour Tiles are a deceptively simple mathematics manipulative ideally suited to developing the concept of area, symmetry and the development of fraction knowledge. It's amazing what you can do with them.

Includes word problem solving cards.



Counters in the Classroom

Year 1+

(DPS1016) Addition, Subtraction, Division, Multiplication, Probability/Statistics • 48 pages

eBook $22 | Book $34

Find out how you can derive the most from using counters by reading this book. Includes word problem solving cards. **Topics include:** Counting, Sorting and Classifying, the four operations, Problem Solving and Reasoning, Spatial Problem Solving, Probability and Statistics and Solving Word Problems.

Counting to 10 with Bond Blocks: Pre-Foundation Book

Pre-F

(DPS5011) Addition, Basic Facts, Bond Blocks, Counting, Patterns • 84 pages

eBook $45 | Book $55

This book contains activities to do with one set of wooden Bond Blocks, to teach numbers to 10, using a Concrete-Representational-Abstract approach. The activities are sequenced to target skills identified by research as key predictors of difficulties at this stage of development. Also available in a kit with resources (Bond Blocks Counting to 10 Kit).

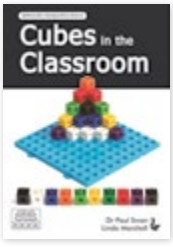
Counting to 20 with Bond Blocks: Foundation Book

Foundation

(DPS5021) Addition, Basic Facts, Bond Blocks, Counting, Patterns • 100 pages

eBook $45 | Book $55

This book contains activities to do with one set of wooden Bond Blocks, to teach numbers to 20, using a Concrete-Representational-Abstract approach. The activities are sequenced to target skills identified by research as key predictors of difficulties at this stage of development. Also available in a kit with resources (Bond Blocks Counting to 20 Kit).



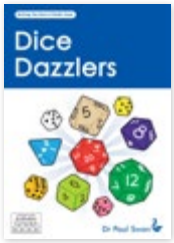
Cubes in the Classroom

Year 2+

(DPS1017) Geometry, Measurement, Probability/Statistics • 48 pages

eBook $22 | Book $34

Cubes are the ideal manipulative for developing spatial understanding. This book reveals how cubes can be used to teach Geometry and Measurement concepts such as volume and surface area, as well as early addition, subtraction and even probability and statistics. All types of cubes that join on multiple sides are considered. Includes examples of Problem Solving Cards.



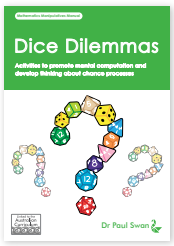
Dice Dazzlers

Year 1+

(DPS1019) Addition, Basic Facts, Division, Games, Multiplication, Place Value, Probability/Statistics, Subtraction • 48 pages

eBook $19 | Book $29.50

This book contains short, simple games, ideal for warm ups. Each game makes use of commonly available dice and the book provides templates for playing boards and score sheets. Games focus on number recognition and ordering, place value, arithmetic, operations, multiplication facts, square and prime numbers, early exploration of chance, plus more!



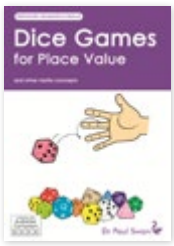
Dice Dilemmas

Year 1+

(DPS1020) Addition, Basic Facts, Division, Games, Multiplication, Place Value, Probability/Statistics, Subtraction • 48 pages

eBook $22 | Book $34

The collection of games and activities in this book have been designed to make use of commonly available dice. Each page shows the type of dice and how many are needed for any activity.



Dice Games for Place Value

Year 2+

(DPS1021) Division, Games, Multiplication, Patterns, Place Value • 48 pages

eBook $22 | Book $34

Dice Games for Place Value and other maths concepts is packed full of great ideas for developing the concept of place value. Other games focus on ideas such as rounding, percentages, multiples and patterns.

All games use simple, readily available dice and are easy to play. The rules are easy to follow and the games may be played in 10-15 minutes or extended into a full lesson.

Dice Games for Tables

Year 2+

(DPS1022) Division, Games, Multiplication • 48 pages

eBook $22 | Book $34

An ideal companion to Tackling Tables. Filled with games and ideas for helping children to learn the basic multiplication facts. This book makes use of the doubling strategy to learn and consolidate basic multiplication fact knowledge.

All games have been classroom tested. All games use commonly available dice

Game boards are provided ready to copy and use in class.

Domino Deductions

Year 1+

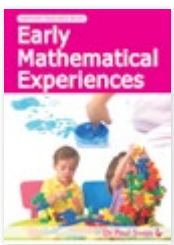
(DPS1023) Addition, Early Number, Place Value, Problem Solving • 48 pages

eBook $19 | Book $29.50

This book shows how a standard set of dominoes may be used as a tool for learning some basic number facts as well as for problems solving.

Includes teacher ideas, reproducible pages, background material and answers.

Extend many of the ideas using Double 9, 12 and 15 dominoes.



Early Mathematical Experiences

PP/F - Year 1

(DPS1024) Early Number, Geometry, Measurement, Probability/Statistics • 72 pages

eBook $26 | Book $41.00

Early Mathematical Experiences includes a variety of 'play-based' experiences that lay the foundation for learning mathematics. Background explanations are provided along with the associated language to use when providing young children with the experiences. While children are participating in these experiences they will be developing fine and gross motor skills. This richly illustrated book will help teachers draw the most from the mathematical experiences.

Geoboard Gems

Year 2+

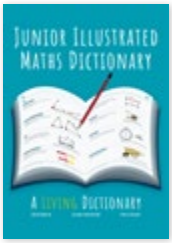
(DPS1025) Fractions and Decimals, Geometry, Measurement • 48 pages

eBook $19 | Book $29.50

The ideas contained in this book may be used with physical and virtual geoboards.

Geoboards are ideally suited to developing Geometry and Measurement concepts.

The mathematics behind the various tasks and activities in the book is clearly explained. Reproducible cards are provided that help students develop Geometric Reasoning. Answers are provided.



Junior Illustrated Maths Dictionary

Year 1 - 3

(DPS1026) The Living Mathematics Dictionary

eBook $19 | Book $29.50

This dictionary covers all of the maths terms and concepts required in the junior primary years. Each word is clarified with engaging illustrations. The book is a very useful reference for both teachers and parents, but it is primarily intended for children to use individually in Years 1 - 4. It is expected that students will make it a Living Dictionary by adding their own supporting comments in the spaces provided, and also retain it from one year to the next.

Make it Count

PP/F - Year 1

(DPS1027) Early Number, Number/Algebra • 90 pages

eBook $29 | Book $45

This book contains intentional teaching activities to develop counting skills. It is based on research of how children learn early number concepts and features a map of development and a series of checklists so that teachers can monitor progress.This book includes a variety of practical ideas and games suited for young children. A set of colour game-boards that teachers may copy for use in their classrooms is included. (Also available in A3 from www.drpaulswan.com.au).

Mathematics and Money

Year 1+

(DPS1028) Games, Money, Problem Solving • 64 pages

eBook $26 | Book $41.00

This book is designed to help children come to grips with money in an age where they rarely see a physical transaction. Participation in the games and activities contained in the book will help children develop their financial literacy as children pass through a series of money milestones. See also Problem Solving Money Puzzles.

Mathematics Games with School Friendly Cards

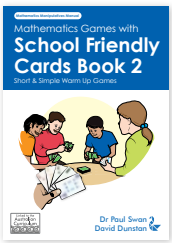
PP/F - Year 3

(DPS1047) Addition, Cards and Card Games, Early Number, Subtraction • 48 pages

eBook $22 | Book $34

This book contains games to be used with School Friendly Cards. The cards have no link with gambling as they are simply numbered from 0 - 13 and use simplified shapes and colour rather than Hearts, Clubs, Spades and Diamonds to indicate suits.

The games and activities in this book are designed to help young children learn key early number concepts while playing simple card games. As students play with these cards they will be developing fluency. Many of the games are ideal for warm ups.



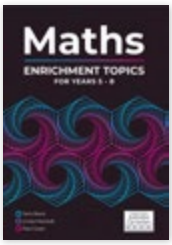
Mathematics Games with School Friendly Cards Book 2: Short & Simple Warm Up Games

PP/F - Year 4

eBook $22 | Book $34

(DPS1048) Manipulative Manual, Counting, Addition, Subtraction, Multiplication, Division • 48 pages

The games in this book use a single deck of School Friendly cards, are based around simple rules, and can be played in 10 minutes. They are designed to be used routinely as part of a warm up program. Recording sheets have been provided for some games so that teachers have the opportunity to assess student learning.



Maths Enrichment for Years 5 - 8

Year 5 - Year 8

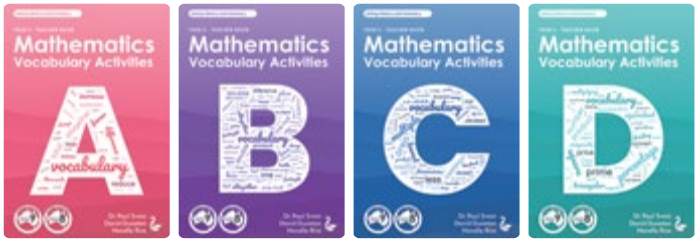
(DPS1029) Fractions and Decimals, Geometry, Measurement, Multiplication, Number/Algebra, Probability/Statistics, Problem Solving • 144 pages

eBook $22 | Book $34

Written by Dr Jack Bana, Ms Linda Marshall and Dr Paul Swan, this book presents to students interesting maths topics that are often missed in standard classroom lessons. There are 17 separate topics, each with a detailed coverage. Every topic has worksheets that can be copied for students. Answers are provided for all worksheets. Topics span a wide range of interests and difficulty levels.

NEW! Mathematics Vocabulary Activities Series

Year 3 - Year 6+

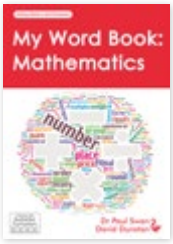


(DPS1080 to DPS1087)
Mathematics Literacies

Teacher Book $34
Student Books: $7.70ea. (min 12)
Also available as a kit with eBook

In this series students read a sentence and complete the mathematics. The words match appropriate language lists for that year level.

More information: See page 4



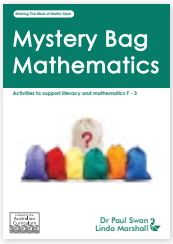
My Word Book: Mathematics

PP/F - Year 7

(DPS1033) Early Number, Geometry, Mathematics Literacies, Money, Number/Algebra, Place Value, Probability/Statistics • 48 pages

eBook $19 | Book $29.50

Clearly many students struggle with the literacy elements of word problems in mathematics. In order to improve comprehension of word problems students will need to improve their mathematical vocabulary. This book provides a framework to help teachers focus on specific mathematical vocabulary. Features: Lists for all of the Curriculum Substrands, organised by year level, a focus on vocabulary required to complete questions & lists of essential vocabulary that has already appeared in NAPLAN.



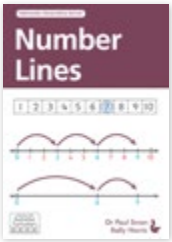
Mystery Bag Mathematics

PP/F - Year 3

(DPS1034) Activities to support literacy and mathematics F-3 • 44 pages

eBook $22 | Book $34

Learn how to fully utilise the Mystery Bag in your class with this comprehensive book. Build Mathematical Vocabulary as students place their hand into the bag and use oral language to describe the features of what they feel. A variety of Curriuclum content from Foundation to Year 3 is covered. Topics include: addition, subtraction, multiplication and division, counting, money, measurement (length), geometry (2D shape and 3D objects) and probability. Each activity includes specific mathematical vocabulary to use.



Number Lines

PP/F - Year 4

(DPS1035) Manipulative Manual, Early Number, Number/Algebra • 52 pages

eBook $22 | Book $34

One of the most common tools for teaching number concepts is the number line. It is one of the most common graphics that students will see in mathematics. This book shows how an understanding of number lines may be built from the early years on.

Numeracy with Number Boards

Year 1+

(DPS1036) Addition, Division, Multiplication, Place Value, Problem Solving, Subtraction • 48 pages

eBook $22 | Book $34

You will be amazed at the different number concepts that can be developed using a variety of number boards. This simple but effective tool is ideal for spotting number patterns and learning place value concepts. All you need is a number grid and some counters or whiteboard number grids and some dry erase pens and your lesson will be up and running. Students can record their findings on a paper grid for assessment purposes.

Pattern Blocks

Year 1+

(DPS1037) Manipulative Manual, Fractions, Geometry, Measurement • 48 pages

eBook $22 | Book $34

Pattern Blocks are a versatile mathematics manipulative. This manual helps teachers gain the most from using them. It covers fundamental Geometry concepts such as symmetry (line and rotational), Measurement ideas such as area and perimeter and Number ideas such as fractions.

Pocket Dice A, B and C

PP/F - Year 6

Book A: (DPS1039) 64 pages | Book B (DPS1040) 48 pages |
Book C: (DPS1041) 48 pages

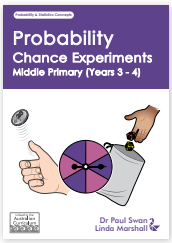
Book A eBook $26 | Book $41.00
Book B & C eBooks $21 | Book $34

Pocket Dice are large, soft dice with clear pockets on all six faces.

Different inserts are placed in the pockets to provide an unlimited range of options. The dice can be used for whole class activities, or for small group or pairs work.

Pocket Dice Books A, B and C provide ideas, activities and inserts for activities across many aspects of mathematics for Foundation to Year 6.

Book A: Naming numbers, 2D shape, 3D objects, time, basic addition and subtraction facts, place value and money. **Book B:** Geometry – directional language, time, addition and multiplication, money, place value co-ordinates, angles and fractions.
Book C: Probability, grid references, fractions, 12/14 time, division with remainders, transformational geometry – flip slide and turn, and decimals.



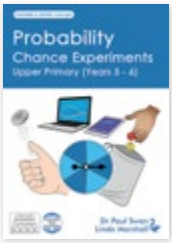
Probability Chance Experiments Middle Primary

Years 3 - 4+

(DPS1042) Manipulative Manual, Probability & Statistics • 48 pages

eBook $22 | Book $34

With a kit of simple materials (coins. counters, cards, dice, spinners and a draw-string bag), students will be able to try a variety of chance experiments that highlight fundamental ideas of probability. The experiments are designed to model the collecting of data, drawing up a table, making predictions, performing multiple trials, and more.



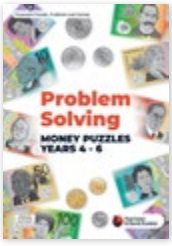
Probability Chance Experiments Upper Primary

Years 5 - 6+

(DPS1043) Manipulative Manual, Probability & Statistics • 48 pages

eBook $22 | Book $34

This book builds on the experiments contained in *Probability Chance Experiments Middle Primary* and introduces the ideas of sample spaces - the systematic listing of possible outcomes. Students compare theoretical probability with the results of collecting data through performing experiments and explore percentages. While the experiments are more sophisticated they use the same materials as the *Middle Primary book*.
Digital resources for completing 'long run' experiments are available online.



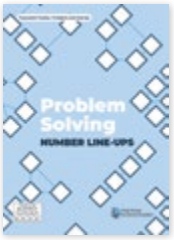
Problem Solving Money Puzzles For Years 4-6

Year 3+

(DPS1044) Problem Solving • 40 pages

eBook $19 | Book $28.6

Part of the Problem-Solving series. This book requires students to not only work out change, but use clues to determine what coins and notes were given in the change. Teachers may copy the cards and give to students to work on individually or in groups. Answers and comprehensive teaching notes are provided.



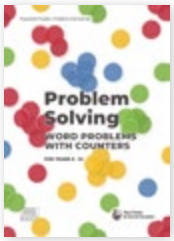
Problem Solving Number Line-Ups

Years 4 - 7+

(DPS1045) Problem Solving • 48 pages

eBook $22 | Book $34

A problem solving booklet consisting of 28 copiable cards for classroom use. Suitable for middle primary to lower secondary students, these problems develop number skills, problem solving, reasoning and promote algebraic thinking. Teachers are supported with the comprehensive "Strategies Explained", "Answers" and "Answer Variations" sections.



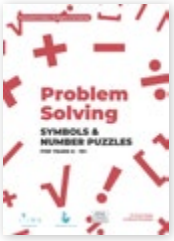
Problem Solving Word Problems with Counters

Years 5 - 6+

(DPS1064) Problem Solving • 32 pages

eBook $19 | Book $28.60

Part of the Problem Solving Series, Problem Solving Word Problems with Counters includes a series of activity cards where all students need is some red, blue, green and yellow counters. Some sample modelled solutions are provided as well as comprehensive solutions.



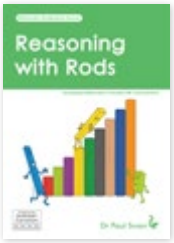
Problem Solving Symbols and Number Puzzles

Years 6 - 10+

(DPS1063) Problem Solving • 36 pages

eBook $19 | Book $28.60

Problem Solving Symbols and Number Puzzles is based on the famous "Four 4's" puzzle. Students are set the challenges to use sets of numbers and symbols to solve a series of problems. Answers and some sample worked solutions are provided along with guidance for using these puzzles and problems in the classroom. Puzzle pages may be reproduced ready for classroom use.



Reasoning with Rods

Year 1 - Year 6

(DPS1046) Addition, Fractions and Decimals, Problem Solving, Subtraction • 48 pages

eBook $22 | Book $34

Coloured Rods or Cuisenaire™ Rods are often underutilised in schools. This simple but effective resource will explain how to get the most out of Coloured Rods. There are sections on early number as well as algebra, the development of fraction concepts and tasks that make you think or reason about mathematics.

Includes a set of Rod Riddle Cards that involve solving word problems and building comprehension of mathematics terms.

Rainbow Pebbles Book

PP/F - Year 6

(DPS1049) Addition, Basic Facts, Early Number, Place Value, Subtraction • 48 pages

eBook $22 | Book $34

Rainbow Pebbles are a tactile manipulative that may support the development of Science, Technology, Engineering, Art and Mathematics (STEAM).

This manual has been designed to help teachers gain the most from this resource. The links between the various activities and STEAM ideas are highlighted.

Tackling Tables

Year 2 - Year 5

(DPS1050) Division, Games, Multiplication • 88 pages

eBook $22 | Book $30.80

The ability to fluently recall the basic multiplication facts is an integral skill. This book provides one of the most comprehensive explanations on how to 'teach' tables. A must for every middle and upper primary teacher in the school.

Teaching Mathematics Through Story Books - Book 1 (Foundation - Year 1)

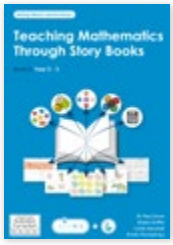
PP/F - Year 1

eBook $22 | Book $34

(DPS1051) Early Childhood, Maths Literacies • 48 pages

Children's story books are a fantastic tool in every early childhood teacher's toolbox. This book takes 12 of the most popular story books for the Foundation – Year 1 age range and provides a number of mathematical activities for students to do using the story book. Includes 6 extra pages of Assessment Opportunities.

HIGHLY COMMENDED
EDUCATIONAL PUBLISHING AWARDS AUSTRALIA 2022



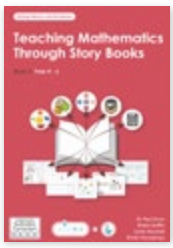
Teaching Mathematics Through Story Books - Book 2 (Year 2 - Year 3)

Year 2 - Year 3

eBook $26 | Book $41.00

(DPS1052) Early Childhood, Maths Literacies • 64 pages

This book takes 14 of the most popular story books for the Year 2 – Year 3 age range and provides a number of mathematical activities for students to do using the story book; for example investigating the months of the year in Penny Matthews' A Year On Our Farm. The book includes photocopiable resources.



Teaching Mathematics Through Story Books - Book 3 (Year 4 - Year 6)

Year 4 - Year 6

eBook $26 | Book $41.00

(DPS1053) Early Childhood, Maths Literacies • 56 pages

This book takes 12 of the most popular story books for the Year 4 – Year 6 age range and provides a number of mathematical activities for students to do based off the story book; for example students have opportunities to practise reducing and simplifying factions in Edward Einhorns' Fractions in Disguise. The book includes copiable resources to make using the activities a breeze. Each story book is given multiple mathematical activity options.

NEW! Teaching Place Value Series

Year 4 - Year 6

eBook $26 | Book $41.00

This series of books is designed to support a **whole school approach to the teaching of place value**.

Plans, assessments and activities are provided for each year level. Using these resources teachers will be able to differentiate activities to meet the needs of students.

Teaching with Ten Frames

PP/F - Year 2

eBook $29 | Book $45

(DPS1030) Addition, Basic Facts, Early Number, Place Value, Subtraction • 80 pages

This book explains how to use five frames, ten strips and then ten frames for developing early number ideas. You may download the boardgames in high quality PDF from www.drpaulswan.com.au, or photocopy & enlarge the ones in the book.

Toying with Tangrams

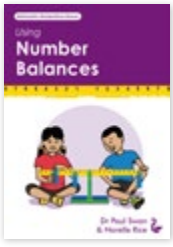
PP/F - Year 6

eBook $19 | Book $29.50

(DPS1056) Fractions and Decimals, Geometry, Measurement • 48 pages

The Tangram is a puzzle made up of seven pieces; triangles, squares and a parallelogram. These seven shapes may be combined to develop various mathematics concepts such as shape, symmetry, similarity, congruence, perimeter, area and fractions. There is a strong emphasis on the vocabulary associated with each activity. Clear teacher notes and answers are provided.

Free tangram puzzles can be downloaded from www.drpaulswan.com.au/resources



Using Number Balances

Year 2+

eBook $19 | Book $28.6

(DPS1057) Addition, Subtraction, Basic Facts, Multiplication • 36 pages

This book explains how to use the Number Balance to teach basic number facts. Includes some problem solving puzzles. Focuses on Years 2-4, with extensions for Years 5-6.

There's much more online!

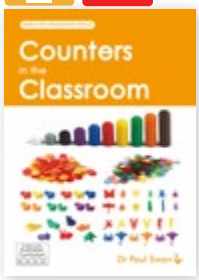
Dr Paul Swan
drpaulswan.com.au

Space prohibits us from listing everything with every item, but it's all worth checking out!

Look out for these icons:

It means there are extra support and complementary materials available on drpaulswan.com.au / youtube.

For example:



downloadable games

drpaulswan.com.au/resources

Video content:

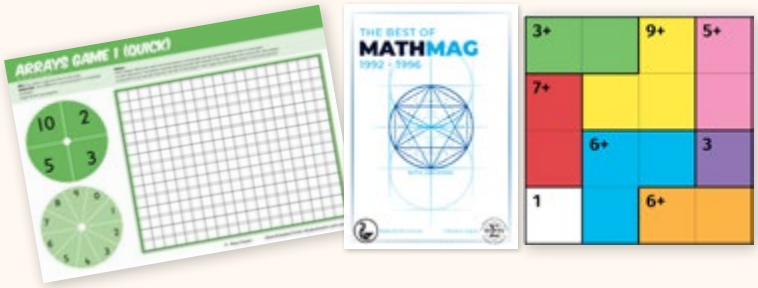
- *Early Years Number Concepts: Partition Board*
- *Uses of Different Counters*
- *Number Representation*
- *Shake and Spill 7*
- *Games with Counters - "Lulu"*

drpaulswan.com.au/videos

We're trying to keep the number of pages down to save paper, but don't miss these great items on the site:

Free Resources & Activities

- Downloadable Games & Puzzles
- Class Planning helpers
- Booklets & Samplers
- Interactive Materials

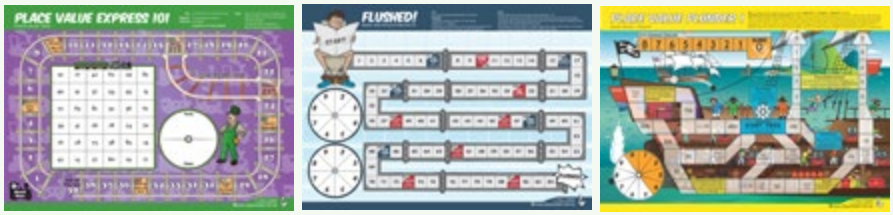


Downloadable Items

- eBooks
- Posters
- Board Games
- Flash Cards
- Mathematical Clipart

A3 Games

- Foundation to Year 5+
- Games on Card
- Download & Print Games



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