

## contents and sample pages

Title	Mastergrids for Mathematics
Author(s)	Paul Swan
ISBN/ISSN	978-1-86311-588-9
Published by	R.I.C Publications

This document is copyright and has been made available with permission.

Please contact the Australian Association of Mathematics Teachers to purchase this product.

AAMT is the nation's premier organisation of mathematics educators: supporting and enhancing the work of teachers; promoting the learning of mathematics; representing and promoting interests in mathematics education.

# Foreword

This publication is designed to assist busy teachers prepare mathematics lessons. The material has been gathered, modified and created over many years of teaching mathematics. Teachers may wish to make multiple copies of some sheets at the beginning of a term so they will be on hand when needed. Other sheets may be copied as needed.

Some sheets may be put to a variety of uses, e.g. 10-mm grid paper, whereas others have specific uses. Brief explanations on how to use the various grids, along with suggestions for activities, have been provided to assist in making the most of the grids. Teachers, however, are encouraged to experiment with new ideas for using the grids.



# Contents

Teachers Notes	1-15		
D-99 Grid	16	Place Value Mats (blanks)	36
D-99 Grid (2 per page)	17	Place Value Mats (blanks)	37
D-99 Grid (6 per page)	18	Write Cards (units)	38
1-100 Grid	19	Write Cards (tens)	39
1-100 Grid (2 per page)	20	Write Cards (hundreds)	40
1-100 Grid (6 per page)	21	Write Cards (thousands)	41
Spiral Number Grids	22	Write Cards (tenths and hundredths)	42
1-6 Number Grid	23	Place Value Cards	43
1-7 Number Grid	24	Place Value Cards	44
1-8 Number Grid	25	Double Six Domino (dots)	45
1-9 Number Grid	26	Double Six Domino (numbers)	46
1-11 Number Grid	27	7-Point Circles (large)	47
Multiplication Table	28	10-Point Circles (large)	48
Multiplication Table (2 per page)	29	12-Point Circles (large)	49
Multiplication Table (6 per page)	30	24-Point Circles (large)	50
Multiplication Table (blanks)	31	8-Point Circles (small)	51
Addition Table	32	10-Point Circles (small)	52
Addition Table (2 per page)	33	12-Point Circles (small)	53
Addition Table (6 per page)	34	24-Point Circles (small)	54
Addition Table (blanks)	35	Cock Faces (analog)	55
Hundred Square (blank)	36	Cock Faces (Roman numerals)	56
10 x 10 Grids	37	Cock Faces (digital)	57
Position Grids	38	Cock Faces (analog and digital)	58
Coordinate Grids	39	7-Piece Tangram	59
Coordinate Grid (dots)	40	5- and 7-Piece Tangram	60
Four-Quadrant Grid	41	Number Lines (blank)	61
Isometric Dot Paper	42	Number Lines (20 point)	62
Dot Paper	43	Number Cards (1-30)	63
5-mm Graph Paper	44	Arithmagons (Triangle)	64
10-mm Graph Paper	45	Arithmagons (Square)	65
20-mm Graph Paper	46	Dice Grid	66
Geoboard Dot Paper 5 x 5 pins (20 mm)	47	Calendar Grid	67
Geoboard Dot Paper 5 x 5 (10 mm)	48	Large Ten Frame	68
Geoboard Dot Paper 4 x 4 (20 mm)	49	Medium Ten Frame	69
Geoboard Dot Paper 4 x 4 (10 mm)	50	Small Ten Frame	70

# Teachers Notes

## 0-99 and 1-100 Chart

These charts are extremely versatile. The activities outlined below may be carried out on either chart.

1. Invent a game to be played on the 0-99 or 1-100 board.
2. Draw a rectangle around a group of numbers.

2	3
12	13
22	23

66	67	68	69
76	77	78	79
86	87	88	89

Look for patterns. For example, what happens when you add the numbers in opposite corners of the rectangle.

3. Consider the digit sums that occur in a 1-100 chart. You may wish to build a blank 10 x 10 grid to record your findings. Note a digit sum is found by adding the digits that make up a number until a single digit answer is found, e.g. the digit sum for 49 is  $4 + 9 = 13$ ,  $1 + 3 = 4$ . Once the digit sums have been placed onto the blank 100 square, look for patterns.
4. Eratosthenes' Sieve

Eratosthenes was a Greek mathematician who devised a method for finding all the prime numbers less than 100.

- Cross out the number 1.
- Circle the number 2 and then cross out all the multiples.
- Circle 3 and then cross out all the multiples of 3.
- Circle 5 and cross out the multiples of 5.
- Circle 7 and then cross out the multiples of 7.

The numbers that remain should be prime.

5. Covering Patterns

Different patterns may be observed when various multiples are coloured on a 1-100 chart.

For example, when the multiples of 5 are coloured, two columns will be produced. The multiples of 9 produce a diagonal pattern that runs from right to left.

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

# 0-99 Grid

Name \_\_\_\_\_

Date \_\_\_\_\_

0	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

Display Copy