contents and sample pages

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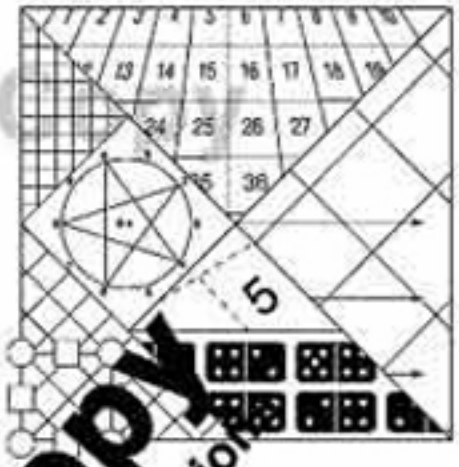
Foreword

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.



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Teachers Notes

0–99 and 1–100 Chart

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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 digits in opposite corners of the rectangle.

3. Consider the digit sums that occur in a 1–100 chart. You will require 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 of 2.
   - Circle 3 and then cross out all the multiples of 3.
   - Circle 5 and cross out all the multiples of 5.
   - Circle 7 and then cross out the multiples of 7.

   The numbers that remain should be prime numbers.
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

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0–99 Grid

Name _____ Date _____

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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

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