

Mental Math

Activities

& Posters



Mental Math
Counting On Strategy

Circle the larger number and count from there.

$4 + 7 = 8, 9, 10, 11$

$8 + 5 = 9, 10, 11, 12, 13$

$3 + 22 =$
Find 22 on the grid and count on 3 more.

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

$2 + 7 =$
Start at 7, count on 2 more.

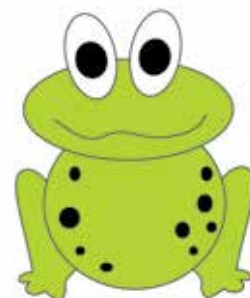
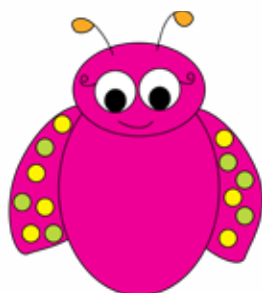
1	2	3	4	5	6	7	X	X
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Mental Math - Activities & Posters

Fun, hands on activities and games to help teach various mental math strategies.

By Melinda Crean of Top Notch Teaching

Thank you for purchasing this product.

I hope this item will meet all you require for your students and classroom. If you have any questions, comments or feedback please email me at mcrean@topnotchteaching.com.

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Introduction

Does anyone else out there dislike teaching mental math? I don't know what it is about it...but I always struggled to teach my students the skills needed in order to be able to mentally calculate.

That's what this pack is all about. I'm going to share with you some of the activities and games I use to help teach various mental math strategies.

The general aim of teaching these mental math strategies is to:

1. Encourage students to use mental computation as their first choice and as a way of checking other forms of calculation.
2. Assist students in building a rich variety of strategies from which they can select to complete calculations.
3. Help students understand the relationships and patterns that occur between multiplication and division, which will then aid them in their mental calculation.
4. Develop in students confidence and enjoyment in mathematics through the control and command over numbers.

The mental math strategies that will be covered in this pack include:

- Counting on strategy;
- Near doubles strategy;
- Compatible numbers strategy;
- Partitioning strategy; and
- Estimating strategy.

Compatible Numbers Strategy

It's important for your students to realize that mental calculations can be simplified by learning particular strategies, such as the compatible numbers strategy.

What are compatible numbers?

Compatible numbers are numbers that when added produce a 'tidy sum', one that usually ends in zero or is a multiple of 10. For example, 7 and 3; 6 and 4; 8 and 2; and 9 and 1 are considered compatible because when added they total 10 (end in zero).

Also, 70 and 30; 16 and 14; 38 and 62 are also compatible numbers because when added they total 100 (end in zero). For younger students, you could use strips of 10 that can be broken up to show the compatible numbers, as in the poster on the following page.

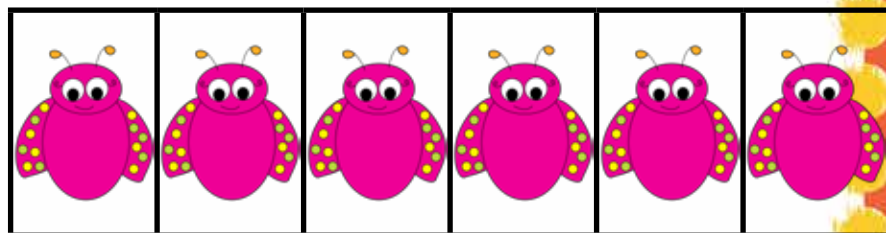
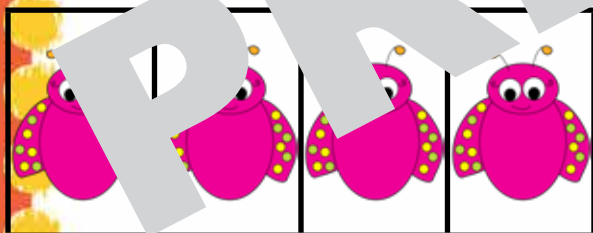
Mental Math

Compatible Numbers

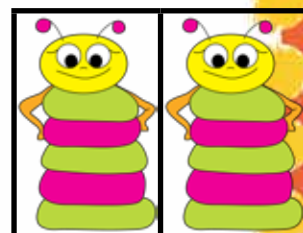
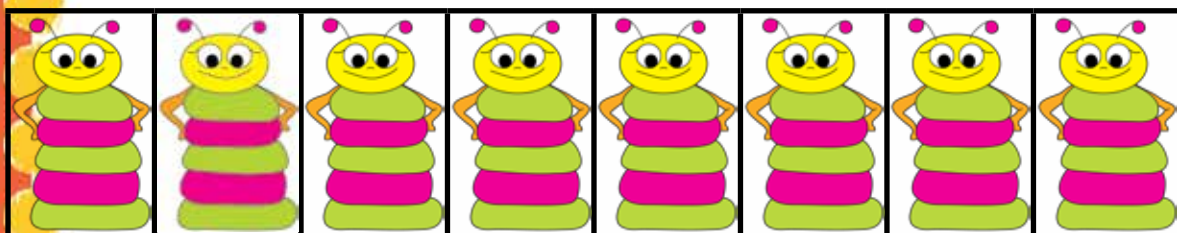
Numbers that when added produce a 'tidy sum' - usually ending in a zero.

Use strips of 10 that can be broken up to show the compatible numbers.

4 and 6 are compatible numbers



8 and 2 are compatible numbers



Compatible Numbers

Activities

For this activity you will need a whiteboard. On the whiteboard write a list of compatible numbers in random order within a frame. Page 16 provides an example of compatible numbers you could use that total 10 (for younger students) as well as some that total 100.

Instructions

Explain the compatible numbers strategy to your students (numbers that when added produce a tidy sum – usually ending in a zero) and then ask your students to find the pairs of compatible numbers. Some discussion questions you can ask your students include:

- Do the two numbers add together to make the tidy sum?
- How did you choose the pairs of numbers?
- How did you work that out?
- What was your strategy?
- Why did you use that strategy?

You can then get your students to make their own compatible numbers that total an amount that suits the level of your students, such as 10, 20, 50 or 100. See page 17 for some more examples of grids you could use.

Compatible Numbers

Activities

Adaptions

Some ways that you could adapt this activity include:

- Get your students to write as many compatible numbers (that total a specific amount) as they can in a certain time (e.g. 1 minute).
- Get your students to make up their own game and swap with another student who must find the compatible numbers.
- You could also ask for 2 numbers that make a tidy sum.
- You could also have a number of different frames made up as cards for a math center. Students need to find the compatible numbers on the card and write them down with the total.

Mental Math



Compatible Numbers

Numbers that when added produce a 'tidy sum' - usually ending in a zero.

Numbers that
add to 10

Numbers that
add to 100

4	6	9
6	4	8
3	2	10
1	5	2
8	7	6
9	4	7
1	3	2

70	56	88
60	4	30
44	29	75
67	71	96
40	45	55
25	9	63
81	37	75

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Compatible Numbers

Compatible numbers task cards

Find pairs of numbers that add to 10

2.5	4.9	5.1	0.0
7.2	1.5	2.1	3.6
5	9.4	6.4	6.6
8.7	1.3	2.8	7.9
5.6	8.1	4.4	1.9

Find pairs of numbers that add to 20

9	13	20	8
7	16	12	3
15	0	6	11
5	4	14	10
17	2	3	18

Credits

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