Grade 2

Unit 8:
Addition, Subtraction, and the Number System

About this Unit

This final number unit of Grade 2 is a culmination of the number and operations work students have done. They continue to compose and decompose numbers up to 1000 and solve addition and subtraction problems within 1000. Students refine their strategies for adding and subtracting numbers as they work toward developing fluency with addition and subtraction of two digit numbers up to 100. They investigate and make generalizations about what happens when you add even and odd numbers. They will make generalizations about adding 2 even numbers, 2 odd numbers, or 1 even and 1 odd number.

Adding Odd and Even Numbers

Students focus on reviewing what makes a number even or odd by using partners (making groups of two) and teams (two equal groups). Students determine whether the sum of two addends is even or odd. They will make generalizations about adding 2 even numbers, 2 odd numbers, or 1 even and 1 odd number.

Addition Combinations

Students work with plus 10 combinations. (4 + 10) They use what they know about these combinations to solve other problems. (“I know that 4 + 10 = 14, so 4 + 9 must equal 13 because 9 is 1 less than 10”)

Remaining Combinations

<table>
<thead>
<tr>
<th>3 + 5</th>
<th>3 + 6</th>
<th>3 + 8</th>
<th>4 + 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 + 3</td>
<td>6 + 3</td>
<td>8 + 3</td>
<td>7 + 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 + 8</th>
<th>5 + 7</th>
<th>5 + 8</th>
<th>6 + 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 + 4</td>
<td>7 + 5</td>
<td>8 + 5</td>
<td>8 + 6</td>
</tr>
</tbody>
</table>
**Subtraction**

Students subtract from 100 using a variety of strategies.

\[
100 - 17 = ?
\]

This student used the 100 chart to solve the problem.

**Addition**

Students develop efficient strategies for adding 2-digit numbers.

Kira had 48 balloons. Jake gave her 33 more balloons. How many balloons does Kira have now?

This student kept the 48 whole and added on the 33. He used tens and ones to add on the 33.
Working with 3-Digit Numbers

Students represent 3-digit numbers using place value models and use the models to add and subtract within 1000.

Students use place value notation to represent 3-digit numbers as hundreds, tens, and ones.

258

235 + 152 = ?

\[
\begin{align*}
200 + 100 &= 300 \\
30 + 50 &= 80 \\
5 + 2 &= 7 \\
300 + 80 + 7 &= 387
\end{align*}
\]

Sally had a collection of 258 star stickers. She decided to give 123 of these stickers to Franco for his collection. How many star stickers did Sally have left?

258

258 - 100 = 158
158 - 20 = 138
138 - 3 = ____

176 - 115 = ____

176

176 - 100 = 76
76 - 10 = 66
66 - 5 = 61
**Helping Your Child at Home**

- Give your child an addition or subtraction number sentence that uses 3-digit numbers and ask them to create a story problem to go with the number sentence.

- Ask addition or subtraction questions while playing or watching sports. For example, what is the score of both teams combined? How many more points does Team A need to equal Team B?

- Have your child choose three numbers from 0-9. Have them write as many 3-digit numbers as they can. Have them represent each number using place value notation and in expanded form.

**Visit These Web sites for Interactive Math Activities**

- **Odd and Even Game** (http://www.softschools.com/math/number_patterns/odd_even_number_game/)
  Identify odd and even numbers before learning about adding odd and even numbers.

- **Addition Game** (http://www.ixl.com/math/grade-2/add-two-three-digit-numbers)
  Add up to two 3-digit numbers.

- **Subtraction Word Problems** (http://www.ixl.com/math/grade-2/subtraction-word-problems-up-to-three-digits)
  Solve subtraction word problems up to 3-digit numbers.

- **Addition with Missing Addend** (http://www.mathplayground.com/puzzle_pics_addition.html)
  Solve missing addends to find the hidden picture.