



Dear Second Grade Families,

In Unit 3, students will continue to work on the following second grade Common Core standards in the Operations and Algebraic Thinking (OA) and Number and Operations in Base Ten (NBT) domains.

2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.
2.NBT.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
2.NBT.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
2.NBT.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.
2.OA.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Unit 3 Concepts:

- Mentally Add 10 or 100
- Draw a Picture Strategy
- Place Value Strategy
- Number Line Strategy
- Friendly Number Strategy
- Adding Four Two-Digit Numbers
- One-Step Word Problems

Unit 3 Vocabulary:

- Decompose
- Working form
- Counting on
- Commutative property of addition
- Associative property of addition
- Friendly Number
- Addends
- Sum

It is very important that second graders learn to manipulate numbers in these ways, and make sense of addition. They are building a strong foundation for future math success.

Need a review? Check out our lesson videos on-line!

**[swunmath.com/student-videos](http://swunmath.com/student-videos)**

If you don't know the class's special name, ask your child's teacher.

We encourage you to talk with your child daily about what was learned in math class.

Thank you for your support!

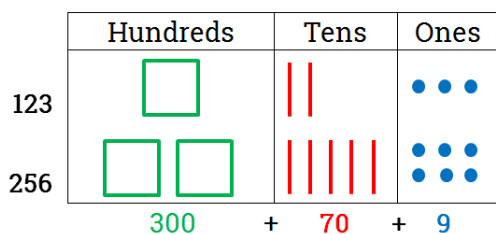


Our focus in this unit is to help students understand what is happening with addition. Before we work with the traditional algorithm, students will first build their conceptual understanding of addition with several different strategies and models.

When helping with homework at home, ask your child to show you how they're using these strategies and models to show how they understand what they're adding.

$$123 + 256 = 379$$

### Draw a Picture Strategy



1. Decompose the addends.
2. Draw pictures of both addends in the base ten chart.
3. Add the ones together.
4. Add the tens together.
5. Add the hundreds together.
6. Rewrite in working form and find the sum.

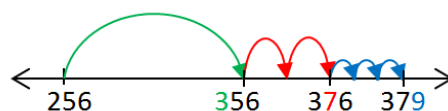
### Place Value Strategy

H	T	O	
100	20	3	300
200	50	6	70
300	70	9	+ 9
			379

1. Decompose the addends on a place value mat.
2. Add the ones.
3. Add the tens.
4. Add the hundreds.
5. Rewrite in working form and add.

### Number Line Strategy

Decompose  $123 = 100 + 20 + 3$



1. Write the larger addend at the beginning (left side) of the number line.
2. Decompose the smaller addend.
3. Count on the hundreds.
4. Count on the tens.
5. Count on the ones.

### Friendly Number Strategy

**Friendly number:** numbers that are easier to work with.

$$\begin{array}{r} 69 + 27 = \\ +1 \quad -1 \\ \hline 70 + 26 = 96 \end{array}$$

1. Use a number line/hundreds chart to see if an addend is close to a "friendlier" number (e.g., multiple of 10).
2. Add what is needed to make the addend a friendly number and subtract the same amount from another addend.
3. Add the two new addends.

Ask questions like these to help your child become a productive mathematical thinker:

- How do these strategies help you add more efficiently?
- Why did you choose that particular strategy to solve the problem?
- Can you find the same solution using a different strategy?