Unit Name:
Addition & Subtraction (Quarter 2)

Common Core State Standards:

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.

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.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.

Essential Vocabulary:

- add
- subtract
- sum
- difference
- more
- less
- equal
- equation
- putting together
- taking from
- taking apart
- addend
- fluent
- compose
- decompose
- place value
- digit
- addition
- subtraction

Unit Overview:

This Addition & Subtraction unit is different from the one earlier in the year, because now students will be adding and subtracting using 2-digit numbers. The strategies learned in this unit will utilize their knowledge of place value. In this unit students will also be expected to represent and solve one and two-step word problems of all three types (Result Unknown, Change Unknown, Start Unknown).

There are various strategies that Second Grade students understand and use when adding and subtracting within 100 (such as those listed in standard 2.NBT.5). The standard algorithm of carrying or borrowing is neither an expectation nor a focus in Second Grade. Students use multiple strategies for addition and subtraction in Grades K-3. By the end of Third Grade students use a range of algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction to fluently add and subtract within 1000. Students are expected to fluently add and subtract multi-digit whole numbers using the standard algorithm by the end of Grade 4.

Second graders explain why addition or subtraction strategies work as they apply their knowledge of place value and the properties of operations in their explanation. They may use drawings or objects to support their explanation.   Once students have had an opportunity to solve a problem, the teacher provides time for students to discuss their strategies and why they did or didn't work.

Strategies/Skills:

- Place value strategy for 2-digit addition
- Decomposing a number to make a ten for 2–digit addition
- 2-digit addition using a number line
- 2-digit addition using a hundreds board

- Expanded method for 2-digit addition (horizontal)
- Show all totals method for 2-digit addition (vertical)
- Place value strategy for 2-digit subtraction
- 2-digit subtraction using a number line
- 2-digit subtraction using a hundreds board
- Expanded method for 2-digit subtraction

Video Support:

Video support can be found on The WCPSS Academics YouTube Channel.

- http://tinyurl.com/WCPSSAcademicsYouTube
  - ES 2 Math Place value strategy for 2-digit addition
  - ES 2 Math Decomposing a number to make a ten for 2–digit addition
  - ES 2 Math 2-digit addition using a number line
  - ES 2 Math 2-digit addition using a hundreds board
  - ES 2 Math Expanded method for 2-digit addition
  - ES 2 Math Show all totals method for 2-digit addition
  - ES 2 Math Place value strategy for 2-digit subtraction
  - ES 2 Math 2-digit subtraction using a number line
  - ES 2 Math 2-digit subtraction using a hundreds board
  - ES 2 Math Expanded method for 2-digit subtraction

Additional Resources:

If you have limited/no internet access, please contact your child's teacher for hard copies of the resources listed in this document.

- NCDPI Unpacking Document: 2nd Grade Unpacking Document
- Please visit the Kahn Academy website at www.khanacademy.org for additional videos and activities. Look under the *Early Math* tab.
- Please visit the Learn Zillion website at www.learnzillion.com to find 2nd Grade math lessons and videos that align with Common Core Standards.