

# Unit Planning Guide: Grade 2 Unit 1 of 8

Unit Title: Understanding the Base Ten System to 1000

Grade: 2

Pacing (Duration of Unit): 8 weeks

Buffer Day(s):

## Desired Results

### Transfer Goals (Priority practice standards in **bold**)

*Students will be able to independently use their learning to:*

- MP.1. **Make sense of problems and persevere in solving them.**
- MP.2. **Reason abstractly and quantitatively.**
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. **Model with mathematics.**
- MP.5. Use appropriate tools strategically.
- MP.6. Attend to precision.
- MP.7. Look for and make use of structure.
- MP.8. **Look for and express regularity in repeated reasoning.**

### Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

#### Prerequisite Standards:

- 1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
- 1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
  - 1.NBT.2a. 10 can be thought of as a bundle of ten ones—called a “ten.”
  - 1.NBT.2b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
  - 1.NBT.2c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
- 1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .
- 1.NBT.4: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations,

#### WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting

Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports.

## Unit Planning Guide: Grade 2 Unit 1 of 8

and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

- 1.NBT.5: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- 1.NBT.6: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), 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 and explain the reasoning used.

### Standards (Priority Standards in **bold**):

- **2.NBT.1 Understand that the three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:**
  - **2.NBT.1a: 100 can be thought of as a bundle of tens-called a “hundred”**
  - 2.NBT.1b: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900, refer to one, two, three, four, five, six, seven, eight, nine hundreds (and 0 tens and 0 ones).
- **2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s.**
- **2.NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.**
- **2.NBT.4: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using  $>$ ,  $=$ ,  $<$  symbols to record the results of comparisons.**
- 2.OA.2: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers.
  - 2.OA.MA.2a: By the end of grade 2, know from memory related subtraction facts of sums of two one-digit numbers.

Meaning (\*Mostly assessed through Performance Tasks/Assessments)

# Unit Planning Guide: Grade 2 Unit 1 of 8

**Big Ideas:** (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)

- A digit's placement in a number affects its value.
- Numbers can represent quantity, position, location, and relationships.
- Place value is based on groups of ten.
- Place value can help to compare numbers.

**Essential Questions:** (Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)

- What is the difference between place and value?
- What are different ways we can show or make (represent) a number?
- Why do we compare numbers?

## Acquisition (\*Mostly assessed through traditional summative assessments)

**Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

*Students will know ...*

- that numbers can be represented by ones, tens, and hundreds
- the position of the digits in numbers determines the value of the number
- that 100 can be thought of as a bundle of 10s called a "hundred"; i.e. 200 refers to 2 hundreds, 0 tens and 0 ones

### Key Academic Vocabulary:

- place
- value
- "make 10"
- bundle
- skip count
- expanded form
- compare
- compose
- decompose

**Skills:** The discrete skills and process students should be able to use independently.

*Students will be skilled at:*

- Adding and subtracting within 20 fluently (by end of year) (Remember)
- Reading, writing, and counting within 1000 using numerals, number names, and expanded form. (Remember)
- Explaining reasoning when comparing numbers (Analyze)
- Using symbols to record comparisons,  $<$ ,  $>$ ,  $=$  (Apply)
- Skip counting by 5s, 10s, and 100s within 1000. (Remember)
- Writing numbers and drawing pictures to represent numbers (Understand)
- Composing and decomposing numbers using manipulatives (Apply)

## Unit Planning Guide: Grade 2 Unit 1 of 8

- digit

### **Resource Suggestions:**

Power Standards

enVision math Topic 10 lesson 10-1 building 1000, 10-2 counting hundreds tens ones, 10-3 reading and writing numbers, 10-6 skip counting, 10-7 comparing numbers. (NBT.1, NBT.2 , NBT.3, NBT.4)