2<sup>nd</sup> Grade: Number and Operations in Base Ten

2.NBT.1 Understand that the three digits of a 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:

A. 100 can be thought of as a bundle of ten tens — called a "hundred."

B. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

## Materials and Directions:

- 1. Give each student an envelope with digit cards numbered 0-9.
- 2. Have students select three random digits to create a three-digit number.
- 3. Students should identify how many hundreds, tens, and ones are in the number they created.
- 4. Put the digits back in the envelope and repeat.

#### Extensions:

- 1. Create the largest and/or smallest number possible.
- 2. Compare to a classmate's number and identify the largest/smallest number.

## **Considerations:**

Observe what strategies students use to solve the problem.

Watch how students arrange the cards to create their 3-digit number. Do they correctly identify each place value? Can the student quickly identify each place randomly or do they need to move through naming each place in order from right to left?

2<sup>nd</sup> Grade: Number and Operations in Base Ten

2.NBT.1 Understand that the three digits of a 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:

A. 100 can be thought of as a bundle of ten tens — called a "hundred."

B. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

## Materials and Directions:

Base Ten Concentration Cards

- 1. Match the Base Ten Concentration cards picture with standard form.
- 2. Place one of each match on the table face up.
- 3. Show the child one card. Have the student find the match from the table.
- 4. Repeat.

## Extensions:

- 1. Give the child 3 of the numbers to order least to greatest.
- 2. Identify the smallest/largest number.
- 3. Lay all the numbers facedown in two rows of ten. Have them play "concentration".

#### Considerations:

Observe what strategies students use to solve the problem. Do they correctly identify each place value? Can the student quickly identify each place randomly or do they need to move through naming each place in order from right to left?



121	105
133	222
201	115
142	171
130	126

2<sup>nd</sup> Grade: Number and Operations in Base Ten

2.NBT.1 Understand that the three digits of a 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:

A. 100 can be thought of as a bundle of ten tens — called a "hundred."

B. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

#### Materials and Directions:

- Index cards with a different three digit number written on each
- 5. Have students select an index card and read the number.
- 6. Students should identify how many hundreds, tens, and ones there are in the number on the index card.
- 7. Repeat with another index card.

# Extensions:

- 3. Ask students to identify the value of each digit out of order (i.e., ones, hundreds, tens OR tens, ones, hundreds)
- 4. Have student compare the numbers and identify the largest/smallest number.
- 5. Have students build models of the numbers using base 10 blocks and/or digiblocks.

## **Considerations:**

- Observe what strategies students use to solve the problem.
- Do they correctly identify the value of each number?
- Can the student quickly identify the value of each number?
- Does the student need to the identity value of the digit in the ones first?
- Does the student need to identity the value of the digit in the hundreds first?
- If the student is struggling with three-digit numbers, can he/she correctly identify the tens and ones place?

2<sup>nd</sup> Grade: Number and Operations in Base Ten

2.NBT.1 Understand that the three digits of a 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:

A. 100 can be thought of as a bundle of ten tens — called a "hundred."

B. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

#### Materials and Directions:

- Base 10 blocks and/or digi-blocks
- 8. Allow students to create a model using Base 10 blocks and/or snap cubes of a number. They can pick a number or build something, such as a house.
- 9. Students should tell you how many hundred blocks, ten blocks, and ones blocks they used and tell you the number that it represents.

## Extensions:

- 6. Ask students to identify the value of each digit out of order (i.e., ones, hundreds, tens OR tens, ones, hundreds)
- 7. Have student compare his/her model to a classmate's and identify the largest/smallest number.

## **Considerations:**

- Observe what strategies students use to solve the problem.
- Do they correctly count the value of the blocks used?
- Can the student identify the number?
- If the student used more than nine tens and or ones, can he/she identify the number correctly (2 hundreds, 12 tens, five ones would be 325)?

2<sup>nd</sup> Grade: Number and Operations in Base Ten

2.NBT.1 Understand that the three digits of a 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:

A. 100 can be thought of as a bundle of ten tens — called a "hundred."

B. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

#### Materials and Directions:

- Base ten blocks or digi-blocks
- 1. Tell the students a number 100-999.
- 2. Have students create a model of the number given using base ten blocks or snap cubes.
- 3. Have students make the same number a different way.
- Optional: Have students draw a model of the number given two different ways on the "Number Two Ways" organizer (attached)

## Extensions:

- 8. Compare to a classmate's model that is different. Explain why both models are correct.
- 9. Have students make the number 3 different ways. Have student explain why all the models equal the same number.

## **Considerations:**

- Observe what strategies students use to solve the problem.
- Watch how students build the models. Do they correctly identify each place value?
- Can the student quickly identify each place randomly or do they need to move through naming each place in order from right to left?
- Is the student able to build a model with 0 in the tens place?

Name	2.NBT.1	
Write the number you teacher says on the line below.		
Use squares		
Two Ways		
Name	2.NBT.1	
Write the number you teacher says on the line below.		
Use squares		
Two Ways		