This collection of lesson plans prepares students for the rigorous questions of Math in Focus while providing ample sheltered strategies for language learners. Manipulatives such as base-ten blocks are used frequently to provide a visual and hands-on element for students to develop conceptual understanding. Visuals such as tables, anchor charts, ten frames and place value charts are incorporated to structure student thinking and scaffold their learning. Teacher talk is structured with open-ended questions and accompanied by gestures and referencing visuals. Opportunities for student output are plentiful.
### Big Idea:
Compare and count numbers up to 1,000.

### Class:
Grade 2 Ch 1 Lesson 5

### Date:

### Content Objectives:
- SWBAT count numbers up to 1,000.
- SWBAT compare numbers using the terms greater than and less than.
- SWBAT represent three digit numbers using base ten blocks.

### Language Objectives:
- SWBAT explain orally the difference between greater than and less than.
- SWBAT orally explain why we look at the hundreds place first when comparing numbers.

### Key Vocabulary:
- Compare
- Greater than
- Less than

### Materials:
- base ten blocks (7-10 sets)
- place value charts
- overhead with base ten blocks
- vocabulary words written and defined
- chart paper, markers
- worksheet example

### Higher Order Questions:
- Why do we call them base ten blocks?

### Time:
10 min

### Activities:
**SHARED HISTORY/BUILDING BACKGROUND**

T: *We have been working the past week on counting numbers up to 1,000. We have learned to show and count numbers by using special tools. What are the tools called that we use?* Students: base 10 blocks.

T: *What do we call each of these blocks?* (go through hundreds block, tens rod, and ones cube). After student answers, a picture of the block will be placed on the board along with the label in word form (ex. “hundred” and number form “ex. 100).

Have students turn and talk to a partner and answer these questions:
- How many ones does it take to make a ten rod?
- How many tens rods does it take to make a hundred?
- How many hundred blocks does it take to make one thousand?”

Sentence frames will be provided on the board for support.

“Sentence Frame: It takes _____ ones to make a ten.”

After turn and talk, have students share with the class as a whole. Answers will be written on the board in chart form.

<table>
<thead>
<tr>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 hundreds</td>
<td>10 tens</td>
<td>10 ones</td>
<td></td>
</tr>
</tbody>
</table>

Teacher will model on the overhead projector how to create the number 119 using base 10 blocks, reviewing that we start with the hundreds place and then move to the tens.
and ones.

T: Why do we move from the hundreds to tens to ones when showing our numbers using base ten blocks? (we compare numbers by starting in the hundreds place, we say numbers by starting with the greatest pv)

Listen and record student answers on chart paper next to projector.

A student volunteer will come up and create the number 86 on projector.

T: How did the student create their number?

Discuss student responses: first they put down 8 ten rods and then they put down 6 one cubes.

WHOLE GROUP

T: Now I want us to take a look at the two numbers we have created. We have the number 119 and the number 86. I want you to turn and talk to a partner about what you notice about these two numbers. I want you to compare them. Compare means to find things that are different between these two numbers. Can you say the word compare? Have students repeat word. Write the word on the board.

Who can remember what compare means? Write definition on board next to word.

Have students complete Turn and Talk.

T: What did you notice about these two numbers? Listen and discuss student answers.

T: Many of us used the words more and less to describe these numbers. Today we are going to be learning two phrases to help us compare our numbers. The first phrase is greater than. What do you think greater than means? (Use hand gestures to show “big”). Excellent, greater than means MORE, or bigger.

Write the term greater than on the chart paper in big letters with the synonyms.

T: The second phrase we will be using is less than. What does the term less than mean? (Use hand gestures to show something small). Yes, less than means something that is smaller, or there are fewer. Write the term less than on the chart paper in smaller letters with the synonyms.

T: So now that we know our terms, let’s fill in this sentence, comparing our two numbers 119 and 86. How do we know which number is greater? Where can we look? Discuss student responses: We needed to look in the hundreds place first, than the tens place, than the ones. If it has more blocks, the value is greater, so the number must be more or greater.

Sentence Frame on overhead: 119 is __________ 86. Greater than.

T: Let’s see if we can complete another example together. Let’s compare, or find the difference between, the number 119 and 172.

Have a student volunteer come up and create numbers on the place value charts on the overhead projector. Use sentence frame to have student say the answer orally in a complete sentence.

Remember, when we are comparing numbers, where do we look first? Greatest place value.

--Repeat with two more examples.

INDEPENDENT PRACTICE
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 15-20 min | Student will complete attached worksheet page.  
*Higher level students:* will complete worksheet page independently on own.  
*Speech Emergence ELL:* Will complete worksheet independently with the assistance of manipulatives (base 10 blocks and place value chart).  
*Early Production ELL:* Will work in small group with teacher to complete worksheet page, with the use of manipulatives (base 10 blocks and place value chart).  
- Worksheet |
| 7 min | CLOSING  
T: Let’s review what we learned to today. Today, (review objectives.) In this chapter, we will (review big idea).  
We learned three new vocabulary words. (review words and refer to words that are posted on the word wall- define, use in a sentence…).  
TW pull popsicle sticks to have students tell something that they learned in today’s lesson, or a question they have about the lesson or chapter. |
Use the words **greater than** or **less than** to fill in the blank. 😊

1. 88 ________ 414

2. 345 ________ 204

3. 908 ________ 235

4. 943 ________ 623

5. 3 ________ 34

6. 17 ________ 349

7. 575 ________ 835

8. 898 ________ 873
**Big Idea:** Count and compare whole numbers up to 1,000.

**Class:** Grade 2 Ch 1 Lesson 6

**Date:**

<table>
<thead>
<tr>
<th><strong>Content Objectives:</strong></th>
<th><strong>Language Objectives:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• SWBAT order three digit numbers.</td>
<td>• SWBAT explain the difference between the greatest and least number</td>
</tr>
<tr>
<td>• SWBAT identify the greatest number and least number.</td>
<td>• SWBAT explain the three steps of putting numbers in order from greatest/least or least to greatest.</td>
</tr>
<tr>
<td>• SWBAT put numbers in order from least to greatest, or greatest to least.</td>
<td></td>
</tr>
</tbody>
</table>

**Key Vocabulary:**
Least
Greatest

**Materials:**
Base ten blocks
Place value chart
2A Workbook (pages 15 & 16)

**Higher Order Questions:**
• What happens if two numbers have the same number of hundreds? What do we do?

**Time:**

10 min

**Activities:**

**SHARED HISTORY/BUILDING BACKGROUND**
T: Yesterday we worked with our three digit numbers by (review objectives from previous lesson). Today we will use our comparing skills to put numbers in order. We will use the vocabulary words least and greatest, which sound familiar to the terms we used yesterday, less than and greater than.

- Refer to terms greater than and less than on word wall.

T: Now we are going to complete a Word Sort using some math vocabulary I have written down on our sentence strips. We want to put the words together that go together. For example, we would put the words greater than and bigger together, because we discussed yesterday that greater than means a number that is bigger. Let's complete this together.

<table>
<thead>
<tr>
<th>Greater than</th>
<th>Less than</th>
</tr>
</thead>
<tbody>
<tr>
<td>biggest</td>
<td>Fewer</td>
</tr>
<tr>
<td>Larger</td>
<td>Smallest</td>
</tr>
<tr>
<td>Greatest</td>
<td>least</td>
</tr>
</tbody>
</table>

Today, we will be using our words greatest and least to help us put our numbers in order.

*Post on board (move to word wall at end of lesson)*

**WHOLE GROUP**
T: Let’s take a look at a couple of numbers. I want to look at the numbers 120, 145, and 170. First, let’s create these numbers on the board by showing out base 10 blocks. *Call on student volunteers to come up to the overhead and create numbers using the*
base 10 blocks.  
T: Now, I want you to look at these three numbers. We want to figure out which number is the greatest and least.  
T: Where can we look first to see which number is greater or bigger? Turn and talk to your partner and discuss where you think we should look first on our place value chart to figure out which number is bigger.  
*Give students time to turn and talk, then discuss as whole class.* (We look at the hundreds place, because that is the biggest value of our numbers).  
T: So let’s take a look at our numbers. We looked at our hundreds place value first, and they all had one hundred. So we moved to the tens place: 120 had 2 tens, 145 has 4 tens, and 170 has 7 tens. Therefore, which number is the greatest? 170. Which number is the least? 145.  
Repeat with another example, using the base 10 blocks on the projector. Identify the greatest and least number out of 4 possible numbers.

**WHOLE GROUP PART 2**  
T: Now that we are able to identify the greatest and least numbers, we will be able to put our numbers in order from least to greatest, or greatest to least. We will learn a new strategy to do this. These boxes on the board will help remind us that we are putting our numbers in order from greatest (or biggest) to least (or smallest). We need to fill in these boxes starting with our greatest number, and move to our least number.  
*Have visual on board:*  
- Let’s looks at the 4 numbers we just used: 220, 150, 189, and 90. To help us organize our numbers, we are going to write them in a place value chart.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

T: Let’s go over the steps we can take to figure out how to put our numbers in order. Teacher will write steps on an anchor chart while going over them with the students whole group.  
- First, we will write our numbers in our place value chart, starting with our hundreds.  
- Second, we will cover up our ones and tens and just look at our hundreds to figure out which number is greatest. If the hundreds are the same, we can move to look at the tens place.  
- Third, we will look at our tens place and ones place to see which numbers come next, and which number is the least.  
T: Notice how I used my place value to line up my hundreds, tens, and ones. Now, we know that we look at the greatest place value first when starting to figure out our least
and greatest numbers. (Numbers will be written on the board).
What place value will we look at first? *Hundreds.*
T: So we have two hundreds, one hundred, one hundred and zero hundreds. So right away, we know which number is greatest? *220 because it has the most hundreds.*
(Write in box.)
T: What comes next? Well, we have two numbers with one hundred. So now where do we need to look?
*The tens place.*
T: So, 150 has 5 tens and 189 has 8 tens. So which number is the *next greatest? 189, because it has 8 tens. Then would come 150."
T: So far, we have our numbers in order from greatest, or the biggest, to least, or the smallest. We have 220, 189, and 150. What number is the *least*, or will come last? 90.
T: How do we know? *Because it has no hundreds, so all of the other numbers are greater. Therefore, 90 is the least number.* (Refer to base 10 blocks for visual).

T: Let’s review the steps we used to order our numbers from greatest to least.
(review anchor chart).
This strategy allows us to clearly see our hundreds, tens, and ones so we can put our numbers in order.

Let’s try another example or putting our numbers in order. This time, we will be putting our numbers in order from least to greatest. What does that mean? *Student responses: we are starting with our smallest number and moving towards our biggest number.*
T: Notice how the boxes on the board now start small, and move to big.

Students will use the numbers 52, 120, 300, and 173 to fill in the boxes from least to greatest. Students will review how to set up their numbers in the place value chart in order to help put their numbers in order.
*Steps and the two examples done together will be left on the board as a reference.

**INDEPENDENT PRACTICE:**
T: Now you will be taking some time to practice putting numbers in order on your own. You will complete workbook pages 15 and 16. Remember to reference our board and word wall if you need a reminder of what to do.
While independent work is being completed,
*Higher level students:* will complete worksheet pages independently on own.
*Speech Emergence ELL:* Will complete worksheet independently with the assistance of manipulatives (base 10 blocks and place value chart).
*Early Production ELL:* Will work in small group with teacher to complete worksheet page, with the use of manipulatives. Teacher will also draw boxes on paper to remind students if they are moving from least to greatest or greatest to least.
**Closing:** T: Let’s review what we learned today. Today, (review objectives.) In this chapter, we will (review big idea).
T: We also completed a word sort in order to help us understand our two new vocabulary words, greatest and least. Turn and talk to your partner, and discuss what the words greatest and least mean.
T: Who can share with the class a sentence using the word greatest or least?
**Big Idea:** Count and compare numbers up to 1,000.

**Class:** Grade 2 Ch 1 Lesson 7

**Date:**

<table>
<thead>
<tr>
<th>Content Objectives:</th>
<th>Language Objectives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SWBAT play “Roll and Count” game to reinforce concept of <em>greater than</em> and <em>less than</em>.</td>
<td>• SWBAT politely correct another students mistake while playing the “Roll and Count” game.</td>
</tr>
<tr>
<td>• SWBAT recognize patterns counting by 1, 10, and 100.</td>
<td>• SWBAT orally explain how they figure out a pattern.</td>
</tr>
</tbody>
</table>

**Key Vocabulary:**
- Greater than
- Less than
- Pattern
- More
- less

**Materials:**
- “Roll and Count” directions
- Blank charts for “Roll and Count” game
- Page protectors
- Place value chart

**Higher Order Questions:**
- When do you use or see patterns in everyday life?
- Why is it important for you to understand and recognize a pattern?

<table>
<thead>
<tr>
<th>Time: 3 min</th>
<th>Activities:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHARED HISTORY/BUILDING BACKGROUND</strong></td>
<td></td>
</tr>
<tr>
<td>T: Today, we will be continuing our study of numbers. We will play a game to help us review greater than and less than, we and we will be moving on to create patterns with our numbers. Who can remind me what the terms <em>greater than</em> and <em>less than</em> mean? (Refer students to our word wall and Word Sort from previous lessons.) <em>Greater means more than, less than means fewer or smaller.</em></td>
<td></td>
</tr>
<tr>
<td>T: Let me introduce the game that we will be playing today, called “Roll and Count”. Teacher will call students to the carpet. Students will sit in a circle while teacher models the game.</td>
<td></td>
</tr>
<tr>
<td>T: In the game “Roll and Count”, you will be working in partners to fill in a special chart. Let’s take a look at the chart. (Teacher will have big copy of chart on whiteboard).</td>
<td></td>
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<tr>
<td>T: Your first direction will be to roll the dice 3 times to make a three digit number. (Teacher models rolling the dice and creates the number 127).</td>
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</tr>
<tr>
<td>T: Now that I have discovered my number, I am going to write it at the top of my chart. It is now my job to answer the questions on my chart. (Teacher will review each question with students and write answers on big chart on whiteboard).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 more than</td>
<td></td>
</tr>
<tr>
<td>1 less than</td>
<td></td>
</tr>
<tr>
<td>10 more than</td>
<td></td>
</tr>
</tbody>
</table>
T: Let’s look at what place value is changing in each question. When we ask for 1 more or 1 less, we are looking at the ones place. When we are asked to move 10 more or 10 less, we are focusing on the tens place. When we are asked to move 100 more or 100 less, what place value are we focusing on? *The hundreds place.*

T: Now, you will get a chance to work with a partner to create your own numbers and fill in the chart. Once one person gets a turn, it is your partner’s job to check your work!

Your paper will be inside a page protector, so you can use your whiteboard marker to write on the paper. Once your partner checks your work, you can erase your answers so you can roll again when it is your turn.

*Break students up into partners. ELL students will be strategically partnered with students who are proficient in math and the game. Teacher will be walking around the room monitoring partnerships.*

**WHOLE GROUP**

T: Now, we are going to use a part of our game for our next task. Who can tell me one of the numbers that you rolled with your dice?

*Student volunteers answer.*

T: Let’s take the number our friend gave us, number 125. When you added 10 to this number, what did you get? 135. Teacher will write numbers on board.

T: What changed in this number? *The tens place.* When we added ten, our tens place went from a “2” to a “3”. Now I have a question for you. What would happen if I asked you to add another 10 to the number 135? We have 125, and now 135 (reference numbers on board). What number would come next if I wanted 10 more? 145.

T: I want everyone to look carefully at the numbers we have on the board. 125, 135, and 145. Together, we have created something called a pattern. Does anyone know what a pattern is? Turn and talk to your partner about what a pattern is.

*Various student responses. Students will then share with whole class.*

T: Correct. A pattern is something that repeats over and over. Here, what pattern have we created? Let’s look at what changed. From the number 125 to 135, what changed?

*Write definition of “pattern” on the board – will be added to word wall at the end of the lesson*

**Student responses: we added 10. Teacher will write 125 + 10 135 on the board.**

T: And what happened from 135 to 145?

*Student responses: we added 10 again.*

T: Great! So now we have the pattern 125 135 145.
Notice how I wrote what my pattern was above the arrow between each number. Here, our repeating pattern is adding 10. The only part of the number that changed was the tens place.

-Check in with the students to see if there are any questions.

T: Now let’s try creating another pattern. I have some numbers in this bag. Who can pull out one number for me?

Student will volunteer and pull out the number 192.

I want us to create a pattern counting by ones. Right away, we know that we are focusing on which place value – the ones, tens, or hundreds? *Ones.* How do you know? *Because we are counting on by one, so only the ones place is changing.*

T: Who can help me finish this pattern?

192, 193, , , ,

Students respond: 194, 195, 196, 197.

T: How did you know? *Because the pattern is to count by ones, so I added one each time. Only the ones place is changing.*

**INDEPENDENT PRACTICE**

T: During our independent practice today, we will be focusing on completing patterns that are changing by the ones, tens, or hundreds. Who can remind me what a pattern is?

- *Students will complete worksheet on making patterns.*
- *Higher level students:* will complete worksheet pages independently on own.
- *Speech Emergence ELL:* Will complete worksheet independently with the assistance of manipulatives (place value chart).
- *Early Production ELL:* Will work in small group with teacher to complete worksheet page, with the use of a place value chart and drawing our arrows to show the repeating pattern.

**Closing:**

T: Today, we (review objectives). Throughout this chapter we will (refer to book).

TW pull popsicle sticks to have students tell something that they learned in today’s lesson, or a question they have for something in the chapter.
<table>
<thead>
<tr>
<th>Number</th>
<th>1 more than the number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 less than the number</td>
</tr>
<tr>
<td></td>
<td>10 more than the number</td>
</tr>
<tr>
<td></td>
<td>10 less than the number</td>
</tr>
<tr>
<td></td>
<td>100 more than the number</td>
</tr>
<tr>
<td></td>
<td>100 less than the number</td>
</tr>
</tbody>
</table>
Complete these patterns. Remember to look and see which place value is changing—your ones, tens, or hundreds!

+10  +10  +10

Example:  57, 67, 77, 87

What is the pattern? __Add 10____

5, 10, 15, _____, _____, _____, _____

What is the pattern? ____________

151, 152, 153, ____ , _____

What is the pattern? ____________

123, 223, 323, _____, _____, _____

What is the pattern? ____________

234, 244, 254, ________, _____, _____

What is the pattern? ____________
**Big Idea:** Count and compare numbers up to 1,000.

**Class:** Grade 2 Ch 1 Lesson 8

**Date:**

**Content Objectives:**
- SWBAT identify and complete number patterns.

**Language Objectives:**
- SWBAT orally identify a pattern using a complete sentence.

**Key Vocabulary:**
Pattern
More
less

**Materials:**
Workbook
Base 10 blocks
Homework Page: Put on Your Thinking Cap

**Higher Order Questions:**
- When do you use or see patterns in everyday life?
- Why is it important for you to understand and recognize a pattern?

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 3 min | **SHARED HISTORY/BUILDING BACKGROUND**  
T: Yesterday during our math lesson, we started to look at and complete patterns. Can someone remind me what a pattern is?  
* A pattern is something that repeats over and over.  
T: That’s correct. What types of patterns did we make yesterday?  
* Various student responses: we counted by 100s, by 10s, and by 1s. |
| 7 min | T: Let’s review completing a pattern. I wrote a pattern on the board. Turn and talk to your partner, and tell me what you think comes next in this pattern. How do you know? You may begin.  
Pattern on the board: 12, 14, 16, ,  
* Give students time to turn and talk, and then share out loud.  
T: Remember, we look at what is changing first – what is **not** the same. The ones place. So how much is it changing by? It’s not by one. It is changing by two.  
Remember how we use our arrows to show how the pattern is changing. So above each arrow, I should be writing what? * You are adding 2 so you should be writing “+2”.  
So what are the next two numbers in the pattern? We have 12, 14, 16…  
* 18 and 20.  
T: Now, I want us to take a look at another pattern we have here on the board. What is different about this pattern?  
* 427, , 429, 430, , 432  
* There aren’t only numbers at the end missing; there are numbers in the middle of the pattern missing.  
We have to be detectives to find clues to help us figure out this pattern. To do this, we will always have the same first step: look where there are two numbers together first. |
What is our first step?

*Have students repeat: look where there are two numbers together first.*

T: So, looking at this pattern, which numbers are together? *429 and 430.* What is our pattern there? What is changing? *The ones place – we added one.*

So now we write our pattern above our numbers with our arrow.

*Write on board* 
\[+1\]

Now, we can use our pattern to fill in our numbers. If our pattern is +1, what is 427 plus 1? *428.* And 430 plus 1? *431.*

**GROUP ACTIVITY**

T: Now you are going to work in groups to complete your own pattern. You will work in your table groups. When I call a student from your group, they will come up and get a string of cards that is in a pattern with some numbers missing. It is your group’s job to figure out the pattern and complete it. Remember, where do we look first when trying to figure out our pattern?

*Students: We look where two numbers are together. Teacher will write reminder on board.*

Students will be called back to their groups. One student from each group will come get their groups pattern. Students will have 5 minutes to work on their pattern. Teacher will be walking around monitoring groups. After 5 minutes, groups will be called on one at a time to share their pattern with the class. They will share the strategies they used and justify their answer.

Students will use the sentence frames:

- This was our pattern.
- Our pattern was (adding/subtracting ).

**INDEPENDENT PRACTICE**

T: During our independent practice today, we will be focusing on completing patterns by figuring out the rule. Remember that our vocabulary words are on our word wall, and our strategies to solve patterns are written on the board as a helper.

Students will complete workbook page 17 and 18.

*Higher level students:* will complete worksheet pages independently on own.

*Speech Emergence ELL:* Will complete worksheet independently with the assistance of manipulatives.

*Early Production ELL:* Will work in small group with teacher to complete worksheet page, with the use of a place value chart and drawing our arrows to show the repeating pattern.

**Closing:**

T: Today, we (review objectives). Throughout this chapter we will (refer to book).

Your homework tonight is to complete a “Put On Your Thinking Cap” Activity about patterns.

TW pull popsicle sticks to have students tell something that they learned in today’s lesson, or a question they have for something in the chapter.
Lesson 4

Find the missing numbers.

What is the missing number?

920
910
900
990
980

Date:

Name:

1. Math Journal
   - Count on or count back.
   - Every 10 counts 10 more makes 10.

2. Every count of ten makes 10.
   - 1 count of ten makes 10.
   - 2 counts of ten makes 20.
   - 3 counts of ten makes 30.
   - 4 counts of ten makes 40.
   - 5 counts of ten makes 50.
   - 6 counts of ten makes 60.
   - 7 counts of ten makes 70.
   - 8 counts of ten makes 80.
   - 9 counts of ten makes 90.
   - 10 counts of ten makes 100.

18

Chapters 1-10, Student Edition
Put On Your Thinking Cap!

Challenging Practice

Answer the question.

Sunny Snake has swallowed some eggs. The eggs have numbers that follow a pattern. Find the missing numbers.