ALSF Lesson Plans and Activities

CCSS-Aligned Lesson Plans: Mathematics

Focus Skill: Number & Operations in Base Ten

Common Core Standard(s):

CCSS.MATH.CONTENT.1.NBT.B.3
Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

CCSS.MATH.CONTENT.2.NBT.A.4
Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Learning Targets:

I can compare two numbers by using the symbols >, <, and =.

I can explain why one number is greater than, less than, or equal to another number based on what I know about place value.

Materials:

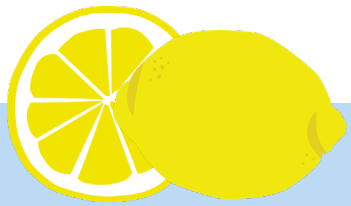
- 'Greater than / Less than / Equal to' signs
- Board or chart paper for place value examples
- Cards or paper with numbers
- Partner and Independent activity pages

Introduction:

Grade 1 Learners	Grade 2 Learners
Let's pretend we have 48 lemons to make lemonade to make lemonade for a stand. Now, let's break this number down based on its place value. (Write on chart, draw or hold up place value blocks) I'd like to try this with another number: Let's pretend we have 65 lemons. (Write on chart, draw or hold up place value blocks) If I look at these two numbers together, I can compare them. One way to compare numbers is to figure out which number is bigger, or the 'greater', number. I can do this by looking at the digits in each place. The number 48 has four tens and eight ones. The number 65 has six tens and five ones. When I compare two numbers based on their place value, I've got to look at the digits in the largest place – in this case, the digit in the tens column.	Let's pretend we have 248 lemons to make lemonade for a stand. Now, let's break this number down based on its place value. (Write on chart, draw or hold up place value blocks) I'd like to try this with another number: Let's pretend we have 365 lemons. (Write on chart, draw or hold up place value blocks) If I look at these two numbers together, I can compare them. One way to compare numbers is to figure out which number is bigger, or the 'greater', number. I can do this by looking at the digits in each place. The number 248 has two hundreds, four tens, and eight ones. The number 365 has three hundreds, six tens, and five ones. When I compare two numbers based on their place value, I've got to look at the digits in the largest place – in this case, the digit in the hundreds column.

Introduction: (continued)

One thing I know about place value is that the digit doesn't always represent the value of that digit. The number "4" in 48 isn't just "4", it's "40". What would the "6" in 65 actually represent? (60.) So if I'm going all the way to the largest place in the number, I'm really comparing a number in the 40s to a number in the 60s. Which is greater: 40 or 60? (60.) So which is greater: 48 or 65? (65.) We always read from left to right, so we would write this as 48 < 65. We would say 48 is less than 65. Or, we could flip it and say that 65 is greater than 48. The symbol always opens toward the greater number.	One thing I know about place value is that the digit doesn't always represent the value of that digit. The number "3" in 365 isn't just "3", it's "300". What would the "2" in 248 actually represent? (200.) So if I'm going all the way to the largest place in the number, I'm really comparing a number in the 200s to a number in the 300s. Which is greater: 200 or 300? (300.) So which is greater: 248 or 365? (365.) We always read from left to right, so we would write this as 248 < 365. We would say that 248 is less than 365. Or, we could flip it and say that 365 is greater than 248. The symbol always opens toward the greater number.
Now wait just a minute. What if the number in the largest place is equal in both numbers? Let's look at another example. I'm going to compare 89 cups of lemonade to 83 cups of lemonade. What's the largest place value in these numbers? (Tens.) If you look at the digits in the tens place for each number, what does it represent? (80.) What do you notice? (They're the same.) Now, I have to look at the next largest place. What would that be? (The ones place.) What digit is in the ones place in each number? (9 and 3.) Those aren't equal, so I can compare those. Is 9 greater than 3 or less than 3? (Less than 3.) So then is 89 greater than 83 or less than 83? (89 is greater than 83.) How do we write this with our symbol? 89 > 83 What would say and write if we flipped the order of the numbers? (83 < 89.)	**Now wait just a minute.** What if the number in the largest place is equal in both numbers? Let's look at another example. I'm going to compare 489 cups of lemonade to 424 cups of lemonade. What's the largest place value in these numbers? (Hundreds.) If you look at the digit in the hundreds place for each number, what does it represent? (400.) What do you notice? (They're the same.) Now, I have to look at the next largest place. What would that be? (The tens place.) What digit is in the tens place in each number? (8 and 2.) And what do they represent? (80 and 20.) Is 80 greater than or less than 20? (80 is greater than 20.) So is 489 greater than or less than 424? (489 is greater than 424.) How do we write this with our symbol? 489 > 424. What would say and write if we flipped the order of the numbers? (424 < 489.) (Feel free to go over a third example with a "0" in the tens place, as this can be tricky.)



Activity:

Each of you is going to have a place value chart. You will also have a number on a card. We're going to pretend that this is the number of lemons you bought for your upcoming lemonade stand. You and a partner are going to see who bought **more** lemons by comparing each of your numbers.

First, find a partner near you and raise a silent hand when you have found one.

Your first task is to break the number of lemons into (hundreds), tens, and ones on your chart. Then, draw out each place value the same way we did in our examples. (Monitor as partners work together)

Now that you know the place value of your number, you and your partner are going to compare your numbers to see which is greater. Then, you're going to write it out the way we did (refer to the first example with symbols.) Remember, each partner's numbers will be flipped, the same way they were when we worked together and put the numbers in a different order.

Last, you'll work with your partner to describe in your own words how you figured out your answer.

Progress Monitor:

- Accuracy in activity and verbal explanation (or written, or recorded) by partners
- Independent Exit Activity (time allowing)

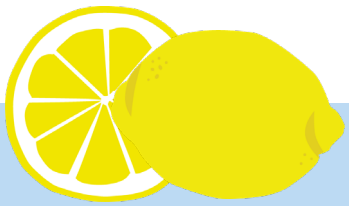
Accommodations/Modifications:

- The teacher can choose partners or have pairs ready to assign beforehand
- Partners can write down their explanation, record it on a tablet to replay later, or collaborate to say it aloud if called on.
- Using place value blocks versus drawings, or both. Optional sentence frames for partner work (attached)

Thank you again for your interest in Alex's Lemonade Stand Foundation!

We hope you will consider supporting ALSF with the help of your class, club, school, district, or community group.

Please contact our office by phone at 866.333.1213
or by e-mail at Takeastand@alexslemonade.org
if you have any questions or need help getting started.



Less Than

Looks like	**<**
For example	14 < 16
We say	14 **is less than** 16
	One ten and four ones **is less than** one ten and six ones

Greater Than

Looks like	**>**
For example	29 **>** 28
We say	29 **is greater than** 23
	Two tens and nine ones **is greater than** two tens and three ones

Equal To

Looks like	**=**
For example	25 **=** 25
We say	25 **is equal to** 25
	Two tens and five ones is equal to two tens and five ones