Warmup

Look at the graph. How many fish did Henry and Kristen catch all together? Write a number sentence to support your answer.

Fish Caught

Henry

Kriston

Marisa

Write these numbers in expanded notation

12 _____   104 _____

68 _____   185 _____

Show your answer on a bar model, ten frame or number line

$9 + 6 =$ _____

Draw coins to show $.35 two different ways

Grade 2- Comparing Numbers

NS 1.2 Use words, models, and expanded forms to represent numbers

NS 1.3 Order and compare whole numbers to 1,000 by using the symbols <, =, >.

2.NBT.3 Read and write numbers to 1,000 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 >, =, and < symbols to record the results of comparisons.

Objectives:

- Students will build two digit numbers with concrete models.
- Students will write expanded notation with number models.
- Students will compare numbers using their models and drawings.
- Students will express the numbers as inequalities using greater than and less than symbols.

Vocabulary: greater than, less than, place value

Model:

Build 2 digit numbers using the tens and ones blocks. Show how to draw the number model and attach the expanded notation to the written model.

We do:

Give students 3 numbers to build, draw and write in expanded notation. Have them work with a partner to check each other's numbers for correct models and justify their answer. Choose students to show their work to the class and explain their models and drawings.

When students justify their answer, ask questions that deepen their understanding of using tens and ones "Why can't we just count out 36 ones to represent the number?"

*Extension- build 3 digit numbers when students are comfortable with 2 digit numbers.

Model:

Choose 2 numbers to compare (62 and 56). Ask students if they know which is the larger or "greater" number. They may be able to identify which is greater, but tell them they will need to prove it.

- Model drawing each number and writing the expanded notation on the practice page.
- Show how the 60 in 62 has more tens than 50 in 56 in the drawing and in expanded notation.
- Ask why 62 is more than 56? (Answer: because 62 has 6 tens and 56 has only 5 tens)
- Ask why 56 isn't greater than 62 because it has 6 ones which is more than 2 ones. Students will have to explain that the 10s are worth more than the ones.

We do:

- Students should compare 42 and 24 along with you. They should use the Comparing Numbers practice page provided, creating drawings and adding expanded notation.
- Students compare their drawings with their partners deciding which number is greater and which number is the least.
- Students compare 74 and 77 on the practice template and discuss with their partner which is the greatest and the least.
- Choose one set of partners to show their work to the class.
- Ask them why 77 is larger. Encourage a class conversation about the fact that with these two numbers there a 613.92 c5s(uone) 0.25 50 0 0 50 oe ftudento tact thich s grearg.2 (ude) 0.2 (nt -0.2 (t) 0.2 (. ,(uone) 0.2

Practice Building Numbers

	Model Drawing	Expanded Notation
		+
		+
		+
		+

Practice Comparing Numbers

	Model Drawing	Expanded Notation	Compare
____ ____		+	____ ◯ ____ **is greater than**
____ ____		+	____ ◯ ____ **is less than**

	Model Drawing	Expanded Notation	Compare
____ ____		+	____ ◯ ____ **is greater than**
____ ____		+	____ ◯ ____ **is less than**

Greatest Number Game

	Model Drawing	Expanded Notation	Compare

Partner 1:

_____ _____

Greatest Number Game

	Model Drawing	Expanded Notation	Compare
Partner 1: ___ ___ ___		+ +	
Partner 2: ___ ___ ___		+ +	**is greater than** **is equal to**

	Model Drawing	Expanded Notation	Compare
Partner 1: ___ ___ ___		+ +	

Lisa has 68 marbles. Josh has 86 marbles. Who has the most marbles? Who has the least marbles? Show how you know.

	Draw Model	Expanded Notation
68		
86		

Compare

_____ ◯ _____   _____ ◯ _____

is greater than   **is less than**

! " # $ % %& '%' #   10/   /1 %

%
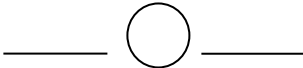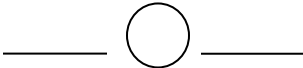
The second graders were taking a field trip. One bus carried 132 kids and the other bus carried 123 kids. Which bus has the most kids? Show how you know.

<u>Draw Model</u>   <u>Expanded Notation</u>

123

132

Compare

___ ◯ ___   ___ ◯ ___

is greater than   **is less than**

Mrs. Jackson made cookies for her class. She put 146 chocolate chips and 163 raisins into the batter. Did she use more chocolate chips or raisins? Show how you know.
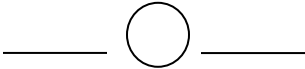
Draw Model   **Expanded Notation**

146

163

Compare

___ ◯ ___   ___ ◯ ___
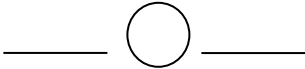
is greater than   is less than

Least Number

	Model Drawing	Expanded Notation	Compare
Partner 1: _____ _____		+	___ ◯ ___
Partner 2: _____ _____		+	**is less than** **is equal to**

	Model Drawing	Expanded Notation	Compare
Partner 1: _____ _____		+	___ ◯ ___
Partner 2: _____ _____		+	**is less than** **is equal to**