What's within 1,000?

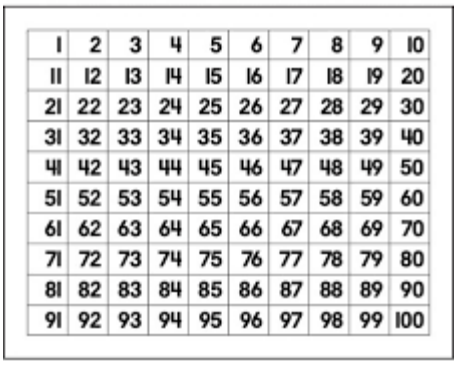
Lessons 1 and 2

Student Objective: "I can work with numbers up to 1,000 using my place value understanding on a hundreds chart."

Standards to Measure	Mathematical Practices
3.NBT.1 Use place value understanding to round whole numbers to the greatest 10 or 100. **3.NBT.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	2 Reason abstractly and quantitatively 5 Use appropriate tools strategically 7 Look for and make use of structure 8 Look for and express regularity in repeated reasoning

Materials: (see below)
100 charts, "Where is the Number on Your Chart?" & "My New Number" recording sheets, +/- Cards

Lesson #1

G **Engage Students with the Goal**	<u>State and Rate</u> Objective: "I can work with numbers up to 1,000 using my place value understanding on a hundreds chart." Students rate themselves to the goal (1, 2, 3, 4).	Setting Objectives and Providing Feedback
A **Access Prior Knowledge**	Show students a picture of a hundreds chart and ask them, "What is this and what is it used for?" Discuss student responses. 	Nonlinguistic Representation Identifying Similarities and Differences

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

N **New Information**	**Pose the following questions:** • If you have 100 charts, how many charts would you need to make 1000? (the answer is 10) (Students will be using 10 hundred charts to make a 1000 chart in the lesson.) • Show students the 10 hundreds charts and compare them. How are they alike and how are they different? What numbers could you fill in on the charts so you can find any number on the chart? Discuss with your shoulder partner. (encourage posting numbers by 10's) In Lesson #1: Have students work with a partner to take 10 charts and fill in any 10 numbers on each chart so that they can locate numbers easily. Have them discuss why they chose the specific numbers that they did (encouraging use of 10's and 100's). After completing their 1000 chart, students will now try to find some numbers on their 1000 chart. Pose questions such as: Which 100 chart would 642 be on? • Now find where 642 belongs on your chart. • Is 642 closer to 600 or 700? How do you know? • Is 642 closer to 10 or 1000? How do you know? • Choose another number such as 876, and again ask student to locate it and describe where it is in relation to other numbers in their chart Do students use landmark numbers to help them locate other numbers?	Similarities and Differences Nonlinguistic Representation Cues, Questions, and Advance Organizers
A **Application**	Have students complete Task #2 together and use the 1000 chart to help them.	Cooperative Learning Providing Feedback Generating and Testing Hypotheses Practice and Homework
G **Revisit the Goal**	<u>State and Rate</u> Objective: "I can work with numbers up to 1,000 using my place value understanding on a hundreds chart." Students rate themselves to the goal (1, 2, 3, 4).	Setting Objectives and Providing Feedback

Lesson #2

This lesson builds on lesson 1

G **Engage Students with the Goal**	<u>State and Rate</u> Objective: "I can work with numbers up to 1,000 using my place value understanding on a hundreds chart." Students rate themselves to the goal (1, 2, 3, 4).	Setting Objectives and Providing Feedback
A **Access Prior Knowledge**	"How could we use our 1,000 chart to add and subtract?" Pair-share with a partner and discuss as a group. Also, ask, "Which direction would you go to add? To subtract?"	Nonlinguistic Representation Identifying Similarities and Differences
N **New Information**	On the board write the number 535. Read the number Then write +40 so that you have 535 + 40 write as an equation Have students read the new sum to their partner. Answer the follow questions: • How did you find your new number? • Which digits changed? • What places are they in? • Is the new sum greater than or less than the original number? Follow the same procedure with task # 3. Have students work in pairs to solve the given task. (Proceed to the application part of Lesson 2.)	Similarities and Differences Nonlinguistic Representation Cues, Questions, and Advance Organizers
A **Application**	Have student complete Task #3 together and use the 1000 chart to help them.	Cooperative Learning Providing Feedback Generating and Testing Hypotheses Practice and Homework
G **Revisit the Goal**	<u>State and Rate</u> Objective: "I can work with numbers up to 1,000 using my place value understanding on a hundreds chart." Students rate themselves to the goal (1, 2, 3, 4).	Setting Objectives and Providing Feedback

Blank 100 Chart

Blank 200 Chart

Blank 300 Chart

Blank 400 Chart

Blank 500 Chart

Blank 600 Chart

Blank 700 Chart

Blank 800 Chart

Blank 900 Chart

Blank 1000 Chart

Task #2
Where is the Number on Your Chart

Using your 1,000 chart, find the correct square for each of the following numbers, and write the number in your chart. For each number you write tell which 100's chart it belongs in (Remember that each chart is named by the last number)

1. 55 is on the _____chart
2. 195 is on the _____chart
3. 876 is on the _____chart
4. 511 is on the _____chart
5. 687 is on the _____chart
6. 799 is on the _____chart
7. 654 is on the _____chart
8. 999 is on the _____chart
9. 499 is on the _____chart
10. 224 is on the _____chart
11. If you counted by 10's, how many would it take to get to 600?
12. If you counted by 100's, how many would it take to get to 400?
13. If you counted by 10/s, how many would it take to get to 220

Task #3
My New Number

You will need:
1000 chart
+/- cards

Directions:
- Partners will choose a number and write the new number on the 1,000 chart. This will be the starting point.
- Partners will draw 5 +/- Cards from the stack and lay them face up. Partners will use these cards for one round. Each round five new cards will be drawn.
- Use any or all cards to make a new number to write on your 1,000 chart.
- Repeat this activity 10 times. On each round, draw five new cards.
- Check to make sure you have recorded your equation that shows your starting number, and the +/- cards you used.
- Record your answers below and remember your new number is always your next starting number!

Starting Number	+/- Card	Equation
Example 343 (remember to write your starting numbers on your 1,000 chart)	+10, -20, +200	343 +10 -20 + 200 =533

Task #3 Cards

Have partners cut the cards out below

+40	-10	+10
-40	-20	+20
-30	+30	+100
-200	+200	100
-300	+300	+500
-50	+50	-500