

Grade 2	Lesson: 10-5 Patterns with Numbers on Hundreds Charts	Reference to English
Math Standard(s): 2.NBT.2 (also 2.NBT.8)		Domain: Numbers and Operations in Base Ten
Content Objective(s):		Language Objective(s):
Students will find, identify and apply number patterns to numbers on a hundred chart. <i>I can find patterns on a hundred chart.</i>		Students will say it goes up to their neighbor. <i>I can tell my neighbor the number goes up.</i>
Essential Understanding: Counting and place-value patterns can be seen on hundreds charts.		Required Academic Vocabulary for Word Wall: Listen: Read: Write: Speak: Sentence Frame:
Materials: <ul style="list-style-type: none"> Hundreds Chart Whiteboards, Markers, Erasers Patterns with Numbers on Hundreds Charts (page 313) Guided Practice (page 314) 		Additional Lesson Vocabulary:
Lesson:		Instructional Time: 40 minutes
<p>Opening: (4 minutes) –</p> <ul style="list-style-type: none"> Students will start on the carpet. Pass out whiteboards, erasers and markers. <p>T: “You have learned to find patterns on a hundred chart. Look at this hundred chart. What patterns can you identify? You have 15 seconds to come up with a pattern.”</p> <ul style="list-style-type: none"> Point at the hundreds chart and give the students time to think. <p>T: “Time is up. Turn to your neighbor and tell them one pattern you have thought of on the hundreds chart.”</p> <p><i>S: will turn to their neighbor and tell them one pattern they found on the hundreds chart.</i></p> <p>T: “I am going to call on 3 people to tell me the patterns they know on the hundreds chart.”</p> <ul style="list-style-type: none"> Teacher will call on three students and the students will count those patterns together (ex. 10, 20, 30, ...) <p><i>S: 3 students will tell the class the patterns they can identify on the hundreds chart.</i></p> <p>T: “You guys are awesome. Those are 3 great patterns.”</p> <p>Introduction to New Material (Direct Instruction): (8 minutes)</p> <ul style="list-style-type: none"> Use document cam to show page 313. <p>T: “Look at this chart. Do you see any patterns?”</p> <p><i>S: will respond, “counting by tens.”</i></p> <p>T: “Look at the first row. Count with me, 10, 20, 30.”</p> <p><i>S: will count with the teacher.</i></p> <p>T: “What number comes next? Tell your neighbor.”</p> <p><i>S: will tell their neighbor, “40 comes next.”</i></p> <p>T: “What number comes next?”</p> <p><i>S: will shout out, “40.”</i></p> <p>T: “Yes, 40 comes next. I will write that in. What comes after that?”</p> <p><i>S: will shout out, “50.”</i></p> <p>T: “Help me continue until I fill in the whole row.”</p> <p><i>S: will say the numbers that come next until they hit 100.</i></p> <p>T: “Very good, thank you for your help.”</p> <p>T: “What do you notice about the numbers as you go from left to right in this chart?” (point at the chart as you ask)</p> <p><i>S: will raise their hands and say, “it goes up” or “adding ten.”</i></p> <p>T: “Yes, as we go from left to right we add ten. What about when we go from top to bottom. We will look at 10 on the chart and go down. What happens to the numbers?”</p> <p><i>S: will respond, “it goes up” or “adding 100.”</i></p> <p>T: “Good job!”</p> <p>Guided Practice: (10 minutes)</p> <p>Using the Modeling Cycle:</p>		

Teacher Does:

T: "Now I need you guys to practice with a partner. Each partnership will fill out the rest of this chart. Then you will take turns counting the numbers in the chart. Let me show you what I mean."

1 Student Does with Teacher:

T: "I need one helper."

- Teacher will choose a student.

T: "We will pretend that we already filled in the chart. Now we need to count. I will start 10. Then you say 20. Then I say thirty. Do you see the pattern? Let's try it. 10"

S: will say, "20."

T: "30."

S: will say, "40."

T: "50."

S: will say, "60."

T: "70. And so on until we are finished with the chart."

All Students Do:

T: "I will call out your groups. You will need to collect your paper and get started. Remember you will fill in the chart and then count together. You will have 5 minutes to do this so see how many times you can count the chart before we come back together. I will walk around the room so I can listen to you count!"

- Teacher will call out the groups and pass out the papers.

S: will fill out the chart and count.

- Teacher will walk around the room helping the students as needed and reminding them to talk throughout the activity.

T: "10,9,8,7,6,5,4,3,2,1. Time is up. Turn in your papers, and come sit on the carpet."

S: will turn in their papers and sit on the carpet.

T: "Let's answer the questions at the bottom of the chart."

- Write the questions on the board and go through them with the students. Use the chart to make it more visual.
 - 10 more than 440 is ____
 - 10 less than 210 is ____
 - 100 more than 70 is ____
 - 100 less than 390 is ____

T: "What is 10 more than 440? Let's look at the chart. Here is 440. If I want to find 10 more I will go down a row. What number is that? Tell your neighbor."

S: will tell their neighbor.

T: "Everyone together. What is 10 more than 440?"

S: will say, "450."

T: "Yes, 10 more than 440 is 450. I will write that in the blank."

- Go through the rest of the problems the same way.

Independent Practice: (10 minutes)

T: "Now, I need you to work on your own. We will do the first one together, and then you will do the rest of guided practice by yourself."

T: "The guided practice problems will give some numbers in a chart and then you have to fill in the rest. I will draw the first one on the board."

- Draw the first chart in problem one from guided practice on the board.

T: "We know 36, 37 and 46. What number comes before 36?"

S: will respond, "35."

T: "Good, I will write 35 in the square in front of 36. What number do I write above 35?"

S: will respond, "25."

T: "Yes, 25 is 10 more than 35 so it goes above 35. What numbers come after 25?"

S: will respond, "26 and 27."

T: "Correct, I will write those numbers in their squares. Count with me 25, 26, 27. That sounds right. What number comes before 46?"

S: will respond, "45."

T: "Yes, 45 comes before 46 and what comes after it?"

S: will respond, "47."

T: "Good job, let me write all these numbers in. Now, please count with me, 26, 36, 46. Awesome, do you see all the patterns?"

S: will count with the teacher.

T: "I am going to pass out the guided practice papers. When you get it, go to your desk and you may now get started. You have 7 minutes to do the last 3 problems.

S: will get started on their work.

- Teacher will walk around helping students as necessary.

T: "10,9,8,7,6,5,4,3,2,1. Time is up. Turn in your papers, and come sit on the carpet."

S: will turn in their papers and sit on the carpet.

Closing: (5 minutes)

- Pass out whiteboards, erasers and markers.

T: "One more problem for the day. Let's fill in one more chart together."

- Draw another chart with empty space on the board and work with the students to fill it in (same as in the lesson).

T: "Good job today."

Assessment:

Guided Practice

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