Implementation Ideas:

- Have your students find patterns in the number spiral by coloring in the chart—use different colors to distinguish different patterns!
- Use different colored stones or other manipulatives to find patterns:

  - In what ways is the number spiral chart similar or different from a traditional 1-100 chart?
  - Can you make a checkerboard pattern? What do you notice?
  - What does it look if you fill in spaces counting by 2’s? What about if you count by 5’s?
  - What is the function that covers up all of the even numbers on the board? ($y = 2x$) All of the odd numbers on the board? ($y = 2x + 1$)
  - Make a number spiral counting by 3s. What number did you start on and end on? Compare with a partner who started with a different number. List the ways in which they look the same and how they look different. Hypothesize: if you wanted your next number spiral to end on the number 150, what number would you have to start on and why?
  - What happens if you color the number 1, color the number 3 a different color, and continue counting by 2s and alternating these two colors throughout your number spiral? Do you notice any patterns?
  - What happens if you color in all the square numbers?
    - What if you colored in the square numbers, and added that number as well? ($x^2 + x$)
  - How much longer does each arm of the spiral get every time it goes around?
  - How wide would the number grid have to be if you wanted a spiral 1,000 boxes long?

Sample Questions:

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