Play-dough Decimals
5th Grade

Objective: Conceptual development of decimals to thousandths place

Materials: Play-dough (1 small can for every 2-3 students)
Rulers

- Each container of play-dough is divided among 2-3 students.
- The students roll their play-dough in a ball.
- Announce that they each have one ball of play-dough.
- Ask them to roll their ball into a long snake.
- Then they are to take the edge of their ruler and divide the snake in 10 equal sections.

  Ask ~
  - How many parts of the whole do we have?
  - What is the name for one part?
  - What does 1 in the numerator refer to?
  - What does the 10 in the denominator refer to?
  - There is another way to write 1/10. It is a type of fraction called a decimal. 0.1
  - Suppose we take 2 parts of the whole thing.
  - How would we write that as a common fraction?
  - How would we write it as a decimal fraction?
  - Continue with other tenths.

- Ask them to take one of their tenths and roll it into a long snake and with their ruler divide the snake in 10 equal sections.
- Have them continue dividing each of their tenths in the same manner until they get the idea that each tenth will represent 10 more little sections.

  Ask ~
  - If we divide 3 of our tenths, how many little pieces will we have?
  - If we divide 8 of our tenths, how many little pieces will we have?
  - If we divide all 10 or our tenths, how many little pieces will we have?
  - How many parts of the whole do we have?
  - What is the name for one part?
  - What does 1 in the numerator refer to?
  - What does the 100 in the denominator refer to?
  - There is another way to write 1/100. It is a type of fraction called a decimal. 0.01.
  - Suppose we take 2 parts of the whole thing.
  - How would we write that as a common fraction?

- How would we write it as a decimal fraction?
- Continue with other hundredths.

- Ask them to take one of their hundredths and roll it into a long snake and with their ruler divide the snake in 10 equal sections.
- Have them continue dividing each of their hundredths in the same manner until they get the idea that each hundredth will represent 10 more little sections.
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Ask ~

- If we divide 3 of our hundredths, how many little pieces will we have?
- If we divide 8 of our hundredths, how many little pieces will we have?
- If we divide all 10 or our hundredths, how many little pieces will we have?
- How many parts of the whole do we have?
- What is the name for one part?
- What does 1 in the numerator refer to?
- What does the 1000 in the denominator refer to?
- There is another way to write 1/1000. It is a type of fraction called a decimal. 0.001.
- Suppose we take 2 parts of the whole thing.
- How would we write that as a common fraction?
- How would we write it as a decimal fraction?
- Continue with other thousandths.