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| **Math 4** | | |
| **Subject: Math**  **Unit: Equivalent Decimals** | | |
| **Learning Target:** Students will relate decimals to fractions and fractions to decimals (to hundredths). They learn that one hundredth is one equal part of 1 whole divided into 100 equal parts. | | |
| **Curriculum Outcomes:**  **N10.04** Expressa given pictorial or concrete representation as a fraction or decimal.(15 shaded squares is 0.15 or 15/100.  **N10.05** Express orally and symbolically, the decimal equivalent for a given fraction. (50/100 can be expressed as 0.50). | | |
| **Screencast Support:**    **Song –** [**Fractional Values**](https://www.youtube.com/watch?v=0JB3bNfLqEM) | | |
| **Resources/AT Tips:**  - iPads iPads HD:Users:lorna:Desktop:Screen Shot 2015-07-10 at 10.29.50 AM.png - Showbie app  - Math Sense 4 text – Lesson 11  -Hundredths grid paper / interactive grid paper  -Pearsons interactive 100 chart.  **-** Flats, rods and units as needed | | |
| **Lesson Procedure** | | **21st Century Skills** |
| **I do:**  **Activate Prior Knowledge**   * Review the value of base ten blocks **when modeling decimals**.   (Flat=one, rod=10, and unit cube=100).  Present students with the following definition of equivalent decimals:  HD:Users:lorna:Desktop:Screen Shot 2015-07-10 at 9.42.35 AM.png | | find, validate  remember, understand  communicate |
| **You do:**   * Using base ten blocks and a hundredths grid, demonstrate how to model decimals, like 0.2 and 0.20, 0.5 and 0.50, **concretely** (text p.203). Then do the same using the SmartBoard and Pearsons interactive 100s chart. (**nsvs site**) * Colour the hundredths grid to represent the decimal. Students can use iPads if interactive 100ths grid can be found on an app. | |  |
| **We do:**   * Ask students to work on page 204, writing equivalent decimals. They may **collaborate**. They may use **iPads – Showbie** **app** to complete the task or use paper grids. * Collaboratively, have students work to complete the attached sheet, Exploring Fractions and Equivalent Fractions. | |  |
| **We share:**   * Together correct text and activity sheet. Have some students use the SmartBoard, 100s, chart to model and represent hundredths and equivalent decimals. Continue reviewing. | |  |
| **Differentiation** | | |
| **Adaptations:**   * Have students complete the ‘**step by step’** activity sheet below. * Have them continue to work with base ten blocks, representing decimals, independently and with partners. | **Enrichment:**   * Have students write a paragraph about when they would use tenths and hundredths outside of the classroom. Try to come up with three examples of each. | |
| **Assessment:**  -Ask students to complete the attached **assessment sheet –** Exploring Hundredths.  **-** Record observations as you rotate around the room; noting how the students are doing. Assist as required. | | |
| **Notes:** | | |

Hundredths Grids

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| **Exploring Hundredths**  5-36-35-36-25-36-11. Write a fraction and a decimal for the shaded part of each grid. a) b) c)    2. Write each number as a decimal.  a)  b)  c)  d)  3. Write each decimal as a fraction.  a) 0.04 b) 0.14 c) 0.07 d) 0.72 |

Master 1.20

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| **Equivalent Decimals**  1. Colour a hundredths grid to show each decimal. Write an equivalent decimal.  a) 0.6 b) 0.40 c) 0.1  2. Write an equivalent decimal for each decimal.  a) 0.70 b) 0.3 c) 0.20  d) 0.8 e) 0.10 f) 0.5  3. Circle the equivalent decimals in each group.  a) 0.3 0.30 0.03 b) 0.01 0.1 0.10  c) 0.7 0.70 0.07 d) 0.5 0.05 0.50 |

Step-by-Step

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**Step 1** One row represents 0.1.  
How many rows represent 0.4? \_\_\_\_\_\_

Colour the hundredths grid to show   
the decimal 0.4.

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**Step 2** One square represents 0.01.  
How many squares represent 0.40? \_\_\_\_\_\_

Colour the hundredths grid to show   
the decimal 0.40.

**Step 3** Look at your two grids.   
Compare the shaded areas for 0.4 and 0.40.   
Which one is larger?

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How do the decimals 0.4 and 0.40 compare?

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A student said that 0.40 is greater than 0.4.   
Was the student correct? Explain.

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