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| **Math 4** | | |
| **Subject: Math**  **Unit: Subtracting Decimals to Tenths** | | |
| **Learning Target:** Students learn that decimals can be estimated then subtracted using base ten blocks and place value. | | |
| **Curriculum Outcomes:**  **N11.01** Predict the differences of decimals using estimation strategies.  **N11.02** Solve problems that involve the subtraction of decimals limited to hundredths. | | |
| **Screencast Support:**  [Subtracting Decimals Using Base Ten Blocks](https://www.youtube.com/watch?v=vYW5RdPd_bA) | | |
| **Resources/AT Tips:**  - iPads Number Basics app HD:Users:lorna:Desktop:Screen Shot 2015-07-03 at 8.55.14 AM.png  - Math Sense 4 text p. 210, 211  -Decimal place value mats  **-** Flats and rods  -Pearson i**nteractive base ten blocks –** use to demonstrate the **subtraction of decimals (nsvs site)**  -[**Online game**](http://www.sheppardsoftware.com/math.htm) – Subtract the decimals | | |
| **Lesson Procedure** | | **21st Century Skills** |
| **I do:**  **Activate Prior Knowledge**   * Review the value of base ten blocks **when modeling decimals**.   (flat= 1whole , rod= 1 tenth). Demonstrate using concrete base ten blocks.   * **Review how to estimate** numbers to the nearest whole.   1.8 – is it closer to 1 or 2?  1.4 – is it closer to 1 or 2? | | find, validate  remember, understand  communicate |
| **You do:**   * Together look at estimation strategies on page 210. Then, explore the **three strategies for subtracting decimals**: using base ten blocks, subtracting from right to left, and using mental math (thinking addition). * Use the **Pearson interactive base ten blocks. (nsvs site**) (Use base ten blocks and a decimal place value mat- demonstrate how to model estimation and the subtraction of decimals, like 3.4 - 1.3, 5.2 – 2.6, 5.75 – 2.53, etc. | | collaborate, communicate  analyze, synthesize |
| **We do:**   * **Collaboratively**, have students complete questions 1 through 5 on page 211 of the Math Sense 4 text, **Subtracting Decimals to tenths**. Students can build numbers using **base ten blocks** to demonstrate subtraction **or** they can build and subtract numbers using the **app,** Number Pieces. * **Assessment sheet** – complete when students are ready. * Play the **online game,** [Subtracting Decimals](http://www.sheppardsoftware.com/math.htm) | | collaborate, communicate  analyze, synthesize  critical thinking  evaluate, leverage |
| **We share:**   * **Together** correct text; have some students use the SmartBoard to model the subtraction of decimals, using a variety of strategies to ‘find the difference’. Continue reviewing and practising. | | collaborate, communicate  critical thinking  evaluate, leverage  create, publish  citizenship |
| **Differentiation** | | |
| **Adaptations:**   * Students can **use a 100th grid**. They **colour** squares to represent the larger square. They can cross out the smaller decimal they are subtracting. They count the remainder of squares to get the answer. Repeat and practice. * **Review screencast** as often as needed. | **Enrichment:**   * Present some **word problems** that contain both **addition and subtraction** of decimals. Then ask students to create their own addition story problems. They can exchange with peers. | |
| **Assessment:**  -Gather the completed **assessment sheet**.  **-** Record observations as you rotate around the room; noting how the students are doing. Assist as required. | | |
| **Teacher Reflection:**  It is important for the students to develop ‘strategies ‘ when adding and subtracting whole numbers and decimals. After practicing these strategies, students should be encouraged to use the strategies that work best **for them**. Have on going discussions about strategies to ‘keep the thinking going’.  Practise subtracting decimals. | | |

Name Date

Use the Number Pieces app or Base Ten Blocks to estimate and then subtract.

Master 1.20

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| **Subtracting Decimals to Tenths**  1. Estimate each difference.  a) 2.8 – 1.1 b) 7.9 – 3.2 c) 6.8 – 5.3  2. Subtract.  a) 9.4 – 3.2 b) 7.6 – 4.1 c) 8.5 – 6.6  d) 13.8 – 7.3 e) 6.3 – 4.8 f) 12.7 – 9.9  3. Subtract.  a) 8.4 b) 11.7 c) 26.3 d) 15.8 e) 1.9  – 4.1  – 8.9  – 14.5  – 12.1  – 0.2 |