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| **Math 4** |
| **Subject: Math****Unit: Strategies for Subtracting** |
| **Learning Target:** Students willpractise using base ten blocks to model the subtraction of two, 3 digit numbers, then demonstrate regrouping using their Number Pieces app or pencil and paper. This will also help further develop their understanding of mental math strategies. |
| **Curriculum Outcomes:** **N3** Students will use personal strategies to subtract 3 digit numbers.  |
| **Screencast Support:** **Screencast** – Strategies for Subtraction |
| **Resources/AT Tips:** **-Screencast** – Strategies for Subtraction-Pearson **interactive** Base Ten Blocks - iPads / paper and pencil  Number Basics app HD:Users:lorna:Desktop:Screen Shot 2015-07-03 at 8.55.14 AM.png App **Showbie**  App Showme -Base ten blocks and place value chart-Subtraction **Work Sheet** |
| **Lesson Procedure** | **21st Century Skills** |
| **I do:** **Activate Prior Knowledge*** Ask students to share the personal strategies they like to use when subtracting 2 digit numbers. (making friendly numbers, using base ten blocks, drawing, using number lines, counting on)
* Discuss the fact that we often subtract numbers mentally, and that it’s important to use manipulatives to develop a greater understanding of subtracting numbers.
* Review the place value of 3 and 4 digit numbers - Using the Smartboard, project a place value mat and base ten blocks.
 |  find, validate remember, understand  collaborate, communicate analyze, synthesize |
| **You do:*** Using the **Smartboard and interactive base ten blocks**, demonstrate how to use the ‘base ten blocks’ and place value chart to subtract, starting with 2 digit numbers. Then attempt to demonstrate the strategy using two, 3 digit numbers. Afterwards, discuss.
* Have students view the [screencast](https://www.youtube.com/watch?v=naae2hlmXEw) https://www.youtube.com/watch?v=naae2hlmXEw, Subtraction Strategies. Using the Smartboard, discuss and review the strategy once more.
* Provide students with base ten blocks and place value mats. Set then up with a partner.
* Ask students to do the subtraction questions either independently or with a partner.
 |   remember, understand  collaborate, communicate analyze, synthesize critical thinkingevaluate, leverage create, publish citizenship |
| **We do:** * Ask partners to decide upon numerous 2, three digit numbers that they both have to build using base ten blocks. They are encouraged to ‘collaborate’ and build the numbers as they practise subtracting using their manipulatives.
* Have students work to complete the **subtraction sheet** with a partner. (below)
 | collaborate, communicate analyze, synthesize critical thinking evaluate, leveragecreate,  |
| **We share:*** Students choose whether they want to use their iPads or base ten blocks when working and sharing. They take turns presenting their base ten numbers with different partners. Teacher rotates, listens, and records. Offer assistance to those in need.
* When it is time to correct the worksheet, allow students to take the lead at the Smartboard using the app Number Basics or Showme to explain their thinking.
 |  critical thinking evaluate, leverage create, publish citizenship |
| **Differentiation** |
| **Adaptations:** * Any student needing adaptations or support can work with numbers up 100, eliminating the thousands place value and others if needed.
* **Replay** the screencast **Subtraction Strategies** as often as needed.
* When using the Pearson interactive math tools, eliminate the hundreds and thousands blocks, as needed.
 | **Enrichment:** * Students ready for enrichment can investigate create their own subtraction questions and /or create subtraction word problems with a partner.
* Allow these students to assist their peers if interested.
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| **Assessment:** Students take turns presenting their work with a partner. Teacher rotates, listens, questions and records. Evidence is gathered based on activity sheet completion as well as students’ base ten modeling of numbers. **Assessment is ongoing.** |
| **Teacher Reflection:** Learning subtraction strategies take time and practice; allow your students the time to build, draw and explain their thinking out loud. Replay the screencast, Subtraction Strategies, as often as needed. Allowing the students to work together allows you to roam, listen and support the students. This further informs the direction of ones instructional strategies.  |

**Subtrac****ting 3-Digit Numbers**

1. Subtract. Use the base ten blocks or the app, Number Basics to ‘show what you know’.

 a) 624 b) 901 c) 837

 – 357    – 743    – 189

A male white Bengal tiger has a mass of about 228 kg.
The female has a mass of about 149 kg.
How much greater is the male tiger’s mass?