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| **Math 4** | | |
| **Subject: Math**  **Unit: Front End Addition Involving 3 and 4 Digit Numbers** | | |
| **Learning Target:** Students willpractice adding 3 and 4 digit numbers together using the ‘front end addition’ strategy. This will help develop their understanding of mental math strategies. | | |
| **Curriculum Outcomes:**  **N01.04** Represent a given numeral using a place-value chart or diagrams.  **NO1.07** Explain the meaning of each digit in a given four digit number**.** | | |
| **Screencast Support:**  S**creencast** - Front End Addition Extended | | |
| **Resources/AT Tips:**  **-Screencast** – Front End Addition Extended  -Pearson **interactive** Base Ten Blocks  -Base ten blocks and place value chart  -Math Makes Sense textbook, p.50. | | |
| **Lesson Procedure** | | **21st Century Skills** |
| **I do:**  **Activate Prior Knowledge**   * Ask students to share the personal strategies they like to use when adding 3 digit numbers. * Discuss the fact that we often add numbers mentally, but share the importance of using the 100’s charts and manipulatives when adding. * Review the value of the digits within a 3 and 4 digit number - Using the Smartboard project a place value mat and base ten blocks. Share a few examples. | | find, validate  remember, understand communicate  analyze |
| **You do:**   * Using the **Smartboard and interactive base ten blocks**, demonstrate how to use the ‘front end addition’ strategy, starting with 3 digit numbers. Then attempt to demonstrate the strategy using two, 4 digit numbers. Afterwards, discuss. * Provide students with base ten blocks and place value mats. Set then up with a partner. Have them build a couple of numbers that you present. * After students explore, have them view the screencast, [**Front End Addition Extended**.](https://www.youtube.com/watch?v=QiPn-vgGJn4) After viewing, have students discuss and ask questions as needed. | | remember, understand  collaborate, communicate  analyze, synthesize  critical thinking  evaluate, leverage |
| **We do:**   * Ask partners to choose numerous two, three and four digit numbers that they both have to build using base ten blocks. They are encouraged to take turns ‘talking out loud’ to build the numbers using the ‘front end addition’ strategy as they work and learn together. * Ask students to do question one on page 50 of their textbook, practicing the ‘front end addition’ strategy. | | collaborate, communicate  analyze, synthesize  critical thinking  evaluate, leverage  create, publish  citizenship |
| **We share:**   * Have students share their learning. They take turns presenting and modeling their numbers with different partners. Teacher rotates, listens, and records. Offer assistance to those in need. * Correct the eight questions on page 50 together, allowing students to take the lead at the Smartboard. | | collaborate, communicate  analyze, synthesize  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 [**Front End Addition**](https://www.youtube.com/watch?v=Lz-glVumNes) from another lesson as needed. * When using the Pearson interactive math tools, eliminate the hundreds and thousands blocks as needed. | **Enrichment:**   * Students ready for enrichment can investigate and build larger numbers that involve regrouping. * Allow these students to work with their peers and assist if interested. | |
| **Assessment:**  Ask students to show the numbers 637 and 3245 in different ways. They record by drawing on paper **or** use the app, Basic Numbers on their iPad devices. They take turns presenting their work in partners and small groups. Teacher rotates, listens, and records. | | |
| **Teacher Reflection:**  Allowing the students to work together allows you to roam, listen and support the students. This further informs the direction of ones instructional strategies.  Learning addition strategies take time and practice; allow your students the time to build, draw and explain their thinking out loud. Replay the screencast as often as needed. | | |