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| **Math 4** | | |
| **Subject: Math**  **Front End Addition Strategy** | | |
| **Learning Target:** Students willpractice adding large numbers together using the ‘front end addition’ strategy. This will develop their understanding of mental math strategies. | | |
| **Curriculum Outcomes:**  **N 3** Students will use personal strategies to add 2 and 3 digit numbers. | | |
| **Screencast Support:**  S**creencast** - Front End Addition. | | |
| **Resources/AT Tips:**  **-Screencast** – Front End Addition  **-iPads**  - App Showme  -Base ten blocks and place value mats | | |
| **Lesson Procedure** | | **21st Century Skills** |
| **I do:**  **Activate Prior Knowledge**   * **Rehearse** together, mental math facts. * Ask students to share the personal strategies they like to use when adding 2 digit numbers. * Discuss the fact that we often add numbers mentally and explain the importance of using the 100’s charts and manipulatives when adding. * Review the value of the digits in 3 and 4 digit numbers. Project a place value mat as well as base ten blocks on the Smartboard. | | find, validate  remember, understand  collaborate, communicate |
| **You do:**   * Using the **Smartboard and interactive base ten blocks**, demonstrate how to use the ‘front end addition’ strategy, starting with two, 2 digit numbers. Then, attempt to demonstrate the strategy using two, 3 digit numbers. Afterwards, discuss. * Provide students with base ten blocks and place value mats. Set then up with a partner. | | Communicate, collaborate |
| **We do:**   * Have students view the screencast, Front End Addition <https://www.youtube.com/watch?v=Lz-glVumNes> . Using the Smartboard, discuss and review the strategy once more. * Ask **partners** to decide upon numerous two, 2 and 3 digit numbers that they both have to build using base ten blocks. They are encouraged to ‘talk out loud’ and build the numbers using the ‘front end addition’ strategy as they work and learn together. * If you sense they are ready, move forward and present 4 digit numbers. | | collaborate, communicate  analyze, synthesize  critical thinking  evaluate, leverage  create, publish  citizenship |
| **We share:**   * Ask students to **share** their learning. They take turns presenting their numbers with different partners. Teacher rotates, listens, and records. Offer assistance to those in need. Some may want to present using the app ShowMe. | | collaborate, communicate  analyze, synthesize  critical thinking,  evaluate, leverage  create, publish  citizenship |
| **Differentiation** | | |
| **Adaptations:**   * Use the **Front End Addition poster. (Below)** * Have them work within a small group under your direction. * **Replay** the screencast as needed. | **Enrichment:**   * Ask students to build 3 and 4 digit numbers or have them tackle numbers requiring consistent regrouping. * View **screencast –** Extended Front End Addition <https://www.youtube.com/watch?v=QiPn-vgGJn4> * Allow these students to work with peers and assist if interested. | |
| **Assessment:**  Ask students to add the numbers 35 and 66 using base ten blocks by using the ‘front end addition’ strategy. Have them explain their thinking out loud. Then have them complete 2 more questions, **allowing them** to determine the size of their two numbers this time, 2, 3 or 4 digit numbers. Have students then record their thinking by drawing **or** by using their iPad devices. Teacher rotates, listens, and records. | | |
| **Teacher Reflection:**  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.  Allowing the students to work together allows you to roam, listen and support the students. This further informs the direction of your next instructional strategy. | | |

Poster

