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Virtual Lesson: Show Me the Number Using Base Ten Blocks

About the lesson

This activity was developed by Carla Whatley, First Grade Teacher at Ferris Intermediate School in Texas during the spring of 2020 as part of an NCII community of practice focused on virtual intervention delivery. Please note that NCII does not endorse specific intervention programs. As such, any programs noted in these documents are used for illustrative purposes only, or as potential resources for source materials (e.g., sample text, graphic organizers).

Manipulatives are very useful tools for educators working with students on their conceptual understanding of numbers in base ten. However, not all students may have access to the hands-on materials. Throughout the years, many free virtual manipulatives have become available. These virtual manipulatives allow educators and students to engage in the Concrete-Representational-Abstract approach without having the physical materials in front of them. For some educators, switching between platforms has been challenging. This lesson can be used synchronously or asynchronously, does not require using multiple platforms, and allows educators to apply the features of interactive base ten blocks.

Video tutorial of how to use the presentation

Below are links to two videos that support successful implementation of this lesson. In the first video, an educator explains how to use the slides; in the second video, the educator implements the lesson with a student. These videos are great resources for educators looking to implement the lesson synchronously and are references to share with parents and families supporting their students at home asynchronously.

- How to Use Virtual Base Ten Blocks
- Example of the Lesson in Action

Tips for implementation

When you work with drag and drop materials in PowerPoint or Google Slides, do not use the presentation mode. You can make the slide bigger by hiding the notes at the bottom and making the slide preview on the left smaller.

Additional scaffolds and supports. Many times, we have students who need additional supports and scaffolds to be successful in the learning environment. Distance learning adds even more support areas to consider, such as access to technology and to a stable internet connection. The following is a list of strategies that can accompany this lesson:

• Use supplemental paper manipulatives that can be sent virtually to students to print and cut out or mailed physically to students who do not have access to printers.

- Templates for printing can be found here:
 https://intensiveintervention.org/sites/default/files/Place_Value_Computation-Supplemental Materials.pdf
- Educators can send home physical manipulatives that match the base ten blocks in this
 presentation for students who struggle to make the connection between concrete and
 representation.
- Educators can print place value charts or can add them to the presentation slides to help students organize their manipulatives.
 - Place value charts templates to print can be found here:
 https://intensiveintervention.org/sites/default/files/Place_Value_Computation-Supplemental_Materials.pdf
 - See Slide 15 in the presentation to copy into slides, as needed.
- If students are working beyond hundreds, educators can add manipulatives for thousands and beyond.
 - See slide 15 in the presentation to copy into slides, as needed.

Resource

The Math Learning Center. (2020). Number Pieces. Retrieved from:

https://apps.mathlearningcenter.org/number-pieces/