Curriculum Units by Fellows of the National Initiative 2018 Volume IV: Big Numbers, Small Numbers

Making Number Sense through Relevancy: Place Value, Adding and Subtracting, Decimals, and Estimation

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The fundamental foundation for strong number sense is the development and understanding of numbers through in-depth instruction in place value of whole numbers, computational adding and subtracting using base 10, decimal numbers, and estimation. My unit is designed to support in developing the understanding of these basic relations of numbers. Students will develop place value concepts, a sense of magnitude (small numbers, big numbers), and estimation skills for whole numbers and decimals. Often students do not connect what is happening in their mathematics classrooms with their daily lives, so incorporating relevant content that arise in the context of the students' world are important as well. Connecting math with real world context is more meaningful to students than traditional textbook exercises and it helps them develop a sense of how numbers and operations are used in their daily life. Also, in my unit I implement cultural relevancy using our native language to support our students' connection of self-identity as young Native Americans. Frequent practice and use of the concepts learned is important in the development of number sense, as are regular opportunities for student communication. Discussion of their learning and problem solving helps students strengthen their intuitive understanding of numbers and the relationships between numbers.

(Developed for Mathematics/Number System, grades 6-7; recommended for Mathematics/Number System, grades 4-7)

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