Critical Areas of Focus for Mathematics Grades K - 2

Kindergarten	Grade 1	Grade 2
Develop the concept of number with respect to: Counting Sequences Counting to tell the number of objects Represening quantities	**Develop place value understanding with two-digit numbers and properties of operations to deepen student's understanding of whole number relationships**	**Expand student's understanding of place value, addition, and subtraction**
Introduce addition and subtraction of whole numbers and model simple joining and separating situations with objects	**Apply previous experiences with counting to develop a rich understanding of additon and subtraction**	**Apply understanding of addition and subtraction to solve problems**
Build basic geometric concepts by using the student's physical world to identify and describe shapes	**Reason about the attributes of and compose and decompose geometric shapes and develop an understanding of linear measurement**	**Lay the foundation for geometric concepts such as area and volume and develop an understanding for the need for standard units of linear measurement**

The Standards for Mathematical Practice

1. Make sense of problems and perservere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

*The Standards for Mathematical Practice describe "how" students should interact with the "what" of the content standards. Teachers **must** integrate these standards into their daily lessons carefully selecting those practices that connect to the content.*

Critical Areas of Focus for Mathematics Grades 3 - 5

Grade 3	Grade 4	Grade 5
Expand student's understanding of number to include fractions, especially unit fractions	**Apply previous experiences with multiplication, division, and place value to develop an understanding of multi-digit factors and multi-digit dividends**	**Apply student's knowledge of place value and operations on whole numbers to decimal fractions and two-digit divisiors**
Develop an understanding of the meaning of and strategies for the operations of multiplication and division making freqeunt connections to the concept of area	**Apply previous experiences with addition, subtraction, multiplication, and fraction equivalence to operate on fractions with like denominators and multiplying a fraction by a whole number**	**Apply previous experiences with operations on fractions to extend to unlike denominators, multiplying two fractions, and using the relationship between multiplication and division to understand ideas surrounding the division of fractions**
Reason with shapes and their attributes	**Classify geometric figures by specific properties**	**Develop an understanding of volume**

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Critical Areas of Focus for Mathematics Grades 6 - 8

Grade 6	Grade 7	Grade 8
Apply previous experiences with multiplication, division, and fractions to develop understanding of rate and ratio as well as completing concepts concerning dividing fractions	**Build on previous experiences with ratio to introduce proportional relationships and apply this understanding to scale drawings**	**Apply previous experiences with linear expressions and equations to extend to systems of equations and use this understanding to represent, analyze, and solve a variety of problems**
Expand student's understanding of the number system with the introduction of negative integers and introduce algebraic expressions and equations	**Apply student's knowledge of the four basic operations and inverse relationships to rational numbers and solve linear equations**	**Build on student's experiences with linear equations to introduce the concept of function as a description of a relationship where one quantity is determined by another**
Develop statistical thinking	**Solve problems with two- and three-dimensional figures, area, surface area, and volume and draw statistical inferences from sample populations**	**Investigate the geometric concepts of similarity, congruence, and the Pythagorean Theorem**

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