

Math 3 - 5

Standards of Mathematical Practice		
1. Make sense of problems and persevere in solving them.		
3 <sup>rd</sup> Grade: Students know that solving problems involves discussing how they solved them. Students will use different methods to check their answers.	4 <sup>th</sup> Grade: Students know that solving problems involves discussing how they solved them. Students will use different methods to check their answers.	5 <sup>th</sup> Grade: Students solve problems by applying their understanding of whole numbers, decimals, and fractions. Questions asked include, "Can I solve this problem in a different way?"
2. Reason abstractly and quantitatively.		
3 <sup>rd</sup> Grade: Students connect quantity to written symbols and create logical representations of the problem.	4 <sup>th</sup> Grade: Students continue to connect quantity to written symbols and create logical representations of the problem. This includes whole numbers, fractions, and decimals. Students write simple equations, record calculations with numbers, and represent numbers using place value.	5 <sup>th</sup> Grade: Students continue to connect quantity to written symbols and create logical representations of the problem. This includes whole numbers, fractions, and decimals. Students write simple equations, record calculations with numbers, and represent numbers using place value.
3. Construct viable arguments and critique the reasoning of others.		
3 <sup>rd</sup> Grade: Students construct arguments for solving problems, communicate their arguments, explain their thinking, and respond to others.	4 <sup>th</sup> Grade: Students construct arguments for solving problems, communicate their arguments, explain their thinking, and respond to others.	5 <sup>th</sup> Grade: Students explain the relationship between volume and multiplication. They refine communication skills by asking questions such as, "How did you get that?" and "Why is that true?"
4. Model with mathematics.		
3 <sup>rd</sup> Grade: Students represent problems in multiple ways, connect the representations, and explain them. Students reflect on their results and determine whether they make sense.	4 <sup>th</sup> Grade: Students represent problems in multiple ways, connect the representations, and explain them. Students reflect on their results and determine whether they make sense.	5 <sup>th</sup> Grade: Students represent problems in multiple ways, connect the representations, and explain them. Students reflect on their results and determine whether they make sense.
5. Use appropriate tools strategically.		
3 <sup>rd</sup> Grade: Students determine which tools are most appropriate to solve problems.	4 <sup>th</sup> Grade: Students determine which tools are most appropriate to solve problems. Students use measurement tools to understand the relative size of units within a system and express measurements given in larger units in smaller units.	5 <sup>th</sup> Grade: Students determine which tools are most appropriate to solve problems.

6. Attend to precision.		
3 <sup>rd</sup> grade: Students use clear, precise mathematical language. Students specify units of measure and state the meaning of the symbols they use.	4 <sup>th</sup> Grade: Students use clear, precise mathematical language. Students specify units of measure and state the meaning of the symbols they use.	5 <sup>th</sup> Grade: Students use clear, precise mathematical language. Students specify units of measure and state the meaning of the symbols they use. Terminology includes expressions, fractions, geometric figures, and coordinate grids.
7. Look for and make use of structure.		
3 <sup>rd</sup> Grade: Students look closely to discover patterns. For example, students use properties of operations (commutative, distributive, associative).	4 <sup>th</sup> Grade: Students look closely to discover patterns or structures. For example, students use properties of operations (partial products model) or arrays for multiplication.	5 <sup>th</sup> Grade: Students look closely to discover patterns or structures. For example, students use properties of operations as strategies to add, subtract, multiply, and divide with whole numbers, fractions, and decimals. They relate numerical patterns to a rule or graphical representation.
8. Look for and express regularity in repeated reasoning.		
3 <sup>rd</sup> Grade: Students seek shortcuts to solve computations. For example, to solve $7 \times 8$ , students may decompose 7 into 5 and 2 and multiply $5 \times 8$ and $2 \times 8$ to arrive at $40 + 16$ or 56.	4 <sup>th</sup> Grade: Students notice repetitive actions in computation to make generalizations. Students use models to explain calculations and use models to examine and generate their own algorithms.	5 <sup>th</sup> Grade: Students connect place value and work with operations to understand algorithms to fluently multiply multi-digit numbers and perform all operations with decimals to hundredths.