

# Math Through The Years

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Parent Ed Night  
October 25, 2018

# Different Experiences with Math

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Youcubed

# Mathematical Practices

**These eight practices are the goals of all math education, K-12**

1. Make sense of problems and persevere 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.

# Learning Target

## Operations and Algebraic Thinking

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This Standards Progression presentation provides a vertical view by domain of the NC Standard Course of Study for Mathematics. All standards are included from Kindergarten to Math 1, 2 and 3. The vertical progression view of the standards reveals how students' thinking about core concepts in mathematics become more sophisticated from grade to grade as they build to Career and College Readiness (CCR).

# Kindergarten Standards

NC.K.OA.1 Represent addition and subtraction, within 10: • Use a variety of representations

NC.K.OA.2 Solve addition and subtraction word problems, within 10, using objects or drawings to represent the problem, when solving.

NC.K.OA.3 Decompose numbers less than or equal to 10

NC.K.OA.4 For any number from 0 to 10, find the number that makes 10 when added to the given number

NC.K.OA.6 Recognize and combine groups with totals up to 5 (conceptual subitizing).

NC.K.OA.5 Demonstrate fluency with addition and subtraction within 5.

# First Grade Math Standards

## Operations and Algebraic Thinking

- 1.OA.1 Use addition and subtraction within 20 to solve word problems.
- 1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.
- 1.OA.3 Apply properties of operations as strategies to add and subtract.
- 1.OA.4 Understand subtraction as an unknown-addend problem.
- 1.OA.5 Relate counting to addition and subtraction.
- 1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10.
- 1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.
- 1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

# Second Grade Math Standards

## Operations and Algebraic Thinking

- NC 2.OA.1- Represent and solve addition and subtraction one and two step word problems, within 100, with unknowns in all positions.
- NC 2.OA.2 - Demonstrate fluency with addition and subtraction, within 20, using mental strategies.
- NC 2.OA.3 - Determine whether a group of objects, within 20, has an odd or even number of members by: pairing objects, placing objects into two equal groups, and writing an equation.
- NC.2.OA.4 - Use addition to find the total number of objects arranged in rectangular arrays and write an equation to express the total as a sum of equal addends.

# Third Grade Standards

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- NC 3.0A1, NC 3.0A 2, NC 3.0A3 - Represent and solve problems involving multiplication and division.
- NC 3.0A 6 - Understand properties of multiplication and the relationship between multiplication and division.
- NC 3.0A 7 Multiply and divide within 100.
- NC.3.0A.8 Solve two-step problems.
- NC 3.0A 9 Explore patterns of numbers



# Fourth Grade Standards

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- NC.OA.1: Represent and solve problems involving multiplication and division.
- NC.OA.3: Use the four operations with whole numbers to solve problems.
- NC.OA.4: Gain familiarity with factors and multiples.
- NC.OA.5: Generate and analyze patterns.

# Fifth Grade Standards

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NC.5.OA.2 - Write and interpret numerical expressions.

NC.5.OA.3 - Analyze patterns and relationships.

# Breakout Sessions

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**Visit your child's grade level to learn more about the math curriculum in their grade!**

K-1: Ms. Smithson, Ms. Kenward

2-3: Mrs. Carr, Mrs. Shirsekar

4-5: Ms. Williams, Mr. Copperwheat