# 2021- 2022 Year at A Glance
## Prince William County Public Schools
*EKS stands for the Essential Knowledge and Skills that students need to have and be able to do in order to be successful with the standard.*

# Mathematics
# 3rd Grade

**NCTM Process Standards:**
- ✓ Problem Solving
- ✓ Reasoning and Proof
- ✓ Communication
- ✓ Connections
- ✓ Representation

The Prince William County Schools Mathematics Program promotes an environment in which students develop a comprehensive and enduring understanding of the concepts of mathematics. Students learn to effectively apply these concepts and use a variety of problem solving strategies. The program nurtures a productive disposition toward mathematics, challenges all learners, and supports further investigations in this field.

| Quarter 1 | Quarter 2 |
|---|---|
| **August 23rd – October 29th** | **November 3rd – January 27th** |

## Quarter 1

**3.1A** Read, write and identify the place and value of each digit in a six-digit whole number, with and without models.

**3.1B** Round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand.

**3.1C** Compare and order up to three whole numbers, each 9,999 or less.'

**3.3A** Estimate and determine the sum or difference of two whole numbers.

**3.3B** Create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less.
**3.3 Essential Knowledge and Skills**
Apply strategies, including place value and the properties of addition to add and subtract two whole numbers, each 9,9999 or less.

**3.17** Create equations to represent equivalent mathematical relationships.
**3.17 Essential Knowledge and Skills**
- Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (e.g., 256 - 13 = 220 + 23; 143 + 17 = 140 + 20; 457 + 100 ≠ 557 +100).

**3.6A** Determine the value of a collection of bills and coins whose total value is $5.00 or less.

## Quarter 2

**3.4A** Represent multiplication and division through 10 × 10, using a variety of approaches and models. **(with 0, 1, 2, 4, 5, and 10 facts only)**

**3.4B** Create and solve single-step practical problems that involve multi-plication and division through10 × 10. **(with 0, 1, 2, 4, 5, and 10 facts only)**

**3.4C** Demonstrate fluency with multi- plication facts of 0, 1, 2, 5, and 10.
**3.4 Essential Knowledge and Skills**
- Apply strategies, including place value and the properties of multiplication and/or addition when multiplying and dividing whole numbers.

**3.17** Create equations to represent equivalent mathematical relationships.

**3.2A** Name and write fractions and mixed numbers represented by a model.

**3.2B** Represent fractions and mixed numbers with models and symbols.

**3.2C** Compare fractions having like and unlike denominators, using words and symbols (>, <, =, or ≠), with models.
**3.2 Essential Knowledge and Skills**
- Identify a fraction represented by a model as the sum of unit fractions.
- Using a model of a fraction greater than one, count the fractional parts to name and write it as an improper faction and as a mixed number.
- Compare a model of a fraction, less than or equal to one, to the benchmarks of $0, \frac{1}{2}$, and 1.

**3.6B** Compare the value of two sets of coins or two sets of coins and bills.

**3.6C** Make change from $5.00 or less.

**3.16** Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.

**3.14** Investigate and describe the concept of probability as a measurement of chance and list possible outcomes for a single event.
**3.14 Essential Knowledge and Skills**
- List all possible outcomes for a single event (e.g., heads and tails are the two possible outcomes of flipping a coin). Limit the number of outcomes to 12 or fewer.
- Describe the degree of likelihood of an outcome occurring using terms such as *impossible*, *unlikely*, *equally likely, likely*, and *certain*.

**3.15A** Collect, organize, and represent data in pictographs or bar graphs.

**3.15B** Read and interpret data represented in pictographs and bar graphs.

**3.5** Solve practical problems that involve addition and subtraction with proper fractions having like denominators of 12 or less.

**3.17** Create equations to represent equivalent mathematical relationships.
**3.17 Essential Knowledge and Skills**
- Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (e.g., $256 - 13 = 220 + 23$; $143 + 17 = 140 + 20$; $457 + 100 \neq 557 + 100$).

| Quarter 3<br>January 31st – March 31st | Quarter 4<br>April 4th – June 15th |
|---|---|
| **3.4A** Represent multiplication and division through 10 × 10, using a variety of approaches and models. **(with 3, 6, 7, 8, 9 facts only)**<br><br>**3.4B** Create and solve single-step practical problems that involve multi-plication and division through10 × 10. **(with 3, 6, 7, 8, 9)**<br><br>**3.4C** Demonstrate fluency with multi- plication facts of 0, 1, 2, 5, and 10.<br>**3.4 Essential Knowledge and Skills**<br>• Apply strategies, including place value and the properties of multiplication and/or addition when multiplying and dividing whole numbers.<br><br>**3.4D** Solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less.<br><br>**3.17** Create equations to represent equivalent mathematical relationships.<br>**3.17 Essential Knowledge and Skills**<br>• Identify and use the appropriate symbol to distinguish between expressions that are equal and expressions that are not equal (e.g., 256 - 13 = 220 + 23; 143 + 17 = 140 + 20; 457 + 100 ≠ 557 +100).<br><br>**3.1A** Read, write and identify the place and value of each digit in a six-digit whole number, with and without models.<br><br>**3.1B** Round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand.<br><br>**3.1C** Compare and order up to three whole numbers, each 9,999 or less.'<br><br>**3.3A** Estimate and determine the sum or difference of two whole numbers.<br><br>**3.3B** Create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less.<br>**3.3 Essential Knowledge and Skills**<br>Apply strategies, including place value and the properties of addition to add and subtract two whole numbers, each 9,9999 or less.<br><br>***Continued on the next page*** | **3.11** Identify and draw representations of points, lines, line segments, rays, and angles.<br>**3.11 Essential Knowledge and Skills**<br>• Describe endpoints and vertices as they relate to lines, line segments, rays, and angles.<br><br>**3.12A** Define polygon.<br><br>**3.12B** Identify and name polygons with 10 or fewer sides.<br><br>**3.12C** Combine and subdivide polygons with three or four sides and name the resulting polygon(s).<br><br>**3.13** Identify and describe congruent and noncongruent figures.<br><br>**3.16** Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.<br>**3.16 Essential Knowledge and Skills**<br>• Solve problems that involve the application of input and output rules limited to addition and subtraction of whole numbers.<br><br>• When given the rule, determine the missing values in a list or table.  (Rules will be limited to addition and subtraction of whole numbers.)<br><br><br>**Review of all standards for SOLs** |

**3.6A** Determine the value of a collection of bills and coins whose total value is $5.00 or less.

**3.6B** Compare the value of two sets of coins or two sets of coins and bills.

**3.6C** Make change from $5.00 or less.

**3.16** Identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.
**3.16 Essential Knowledge and Skills**
- Solve problems that involve the application of input and output rules limited to addition and subtraction of whole numbers.
- When given the rule, determine the missing values in a list or table. (Rules will be limited to addition and subtraction of whole numbers.)

**3.17** Create equations to represent equivalent mathematical relationships.

**3.7A** Estimate and use U.S. Customary and metric units to measure length to the nearest $\frac{1}{2}$ inch, foot, yard, centimeter, and meter.

**3.7B** Estimate and use U.S. Customary and metric units to measure liquid volume in cups, pints, quarts, gallons, and liters.

**3.8A** estimate and measure the distance around a polygon in order to determine its perimeter using U.S. Customary and metric units.

**3.8B** Estimate and count the number of square units needed to cover a given surface in order to determine its area.

**3.9A** Tell time to the nearest minute, using analog and digital clocks.

**3.9B** Solve practical problems related to elapsed time in one-hour increments within a 12-hour period.

**3.9C** Identify equivalent periods of time and solve practical problems related to equivalent periods of time.

**3.10** Read temperature to the nearest degree.