

# Pequannock Township School District Curriculum Syllabus

## Mathematics Grade K

### Course Description:

In this Kindergarten grade mathematics course, students will gain a strong foundation in mathematics. They will develop number sense while also beginning to understand addition and subtraction. Students' understanding of place value will develop as they explore numbers up to 100.

### Course Proficiencies:

The following is a list of proficiencies that describe what students are expected to know and be able to do as a result of successfully completing this course. The following proficiencies are the basis of the assessment of student achievement. The learner will demonstrate mastery of:

#### Counting and Cardinality

1. Know number names and the count sequence. K  
*.CC.A.1, K.CC.A.2, K.CC.A.3*
2. Count to tell the number of objects.  
*K.CC.B.4a-c, K.CC.B.5*
3. Compare numbers.  
*K.CC.C.6, K.CC.C.7*

#### Operations & Algebraic Thinking

4. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.  
*K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.4, K.OA.A.5*

#### Number & Operations in Base Ten

5. Work with numbers 11-19 to gain foundations for place value. K  
*.NBT.A.1*

#### Measurement & Data

6. Describe and compare measurable attributes.  
*K.MD.A.1, K.MD.A.2*
7. Classify objects and count the number of objects in each category. K  
*.MD.B.3*

#### Geometry

8. Identify and describe shapes.  
*.G.A.1, K.G.A.2, K.G.A.3*
9. Analyze, compare, create, and compose shapes.  
*K.G.B.4, K.G.B.5, K.G.B.6*

*K*

**Standards for Mathematical Practice**

1. Make sense of problems and persevere in solving them. *SMP1*
2. Reason abstractly and quantitatively. *SMP2*
3. Construct viable arguments and critique the reasoning of others. *SMP3*
4. Model with mathematics. *SMP4*
5. Use appropriate tools strategically. *SMP5*
6. Attend to precision. *SMP6*
7. Look for and make use of structure. *SMP7*
8. Look for and express regularity in repeated reasoning. *SMP8*

## **Scope and Sequence**

<p><b>Unit 1: Number Names and Count Sequence (Trimester 1)</b></p> <p>Students will count by ones to ten. They will also decompose the number five. Students will be able to identify groups of 5 and 10.</p>
<p><b>Unit 2: Addition as “adding to” and Subtraction as “taking from” (Trimester 1)</b></p> <p>Students will understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</p>
<p><b>Unit 3: Compare Numbers and Shapes (Trimester 2)</b></p> <p>Students will be able to identify shapes. They will also be able to describe and compare measurable attributes. Students will classify objects and count the number of objects in each category.</p>
<p><b>Unit 4: Foundation For Place Value (Trimester 2)</b></p> <p>Students will count to 70 by ones and tens. Students will decompose numbers less than or equal to ten.</p>
<p><b>Unit 5: Geometric Shapes (Trimester 3)</b></p> <p>Students will learn how to identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones cylinders, and spheres).</p>

## Unit 6: Addition & Subtraction (Trimester 3)

Students will fluently learn addition and subtraction facts within five

## Assessments

Evaluation of student achievement in this course will be based on the following:

- a. Observational data collected by teachers as students are learning
- b. Formative assessments given by teachers to gauge progress toward each standard
- c. Districtwide Trimester math assessments

## Curriculum Resources

### Instructional Resources:

*Number Talks: Whole Number Computation, Grades K-5*

*Math in Practice: Teaching Kindergarten Math*

*Math in Practice: A Guide for Teachers*

### Additional Technology Resources:

NC Lessons for Learning: <http://tools4ncteachers.com/kindergarten/>

Georgia Lessons for Grade K: <https://www.georgiastandards.org/Georgia-Standards/Pages/Math-K-5.aspx>

K resources: <http://www.heidibutkus.com>

Illustrative Mathematics: [www.illustrativemathematics.org](http://www.illustrativemathematics.org)

## Home and School Connection

The following are suggestions and/or resources that will help parents support their children:

- Educational games:
  - <https://www.abcya.com/grades/k/numbers>
  - <http://www.sheppardsoftware.com/math.htm>
- Tutorials:
  - Learnzillion (how-to videos, search by topic): <https://learnzillion.com/resources/99913-math-instructional-videos/>
- Other parent resources:
  - YouCubed parent resources: <https://www.youcubed.org/resource/parent-resources/>
  - Table Talk Math parent resources: <https://www.tabletalkmath.com/resources.html>