



**SOUTHERN LEHIGH SCHOOL DISTRICT**  
5775 Main Street  
Center Valley, PA 18034

## **Planned Course for Mathematics**

**Course:** Grade 4 Mathematics

### **Standards:**

This course is aligned to all standards within the follow Domains of the PA Core Standards:

- 4.OA Operations and Algebraic Thinking
- 4.NBT Number & Operations in Base Ten
- 4.NF Number & Operations – Fractions
- 4.MD Measurement & Data
- 4.G Geometry

### **Course Description:**

The K-12 mathematics program within Southern Lehigh School District will provide opportunities for all students to develop the ability to independently apply mathematical knowledge and skills to real-world situations. A robust and coherent curriculum will prepare students to think and reason mathematically while requiring them to demonstrate a deep understanding of mathematics. Students will develop critical thinking, problem solving, innovation, collaboration, and communication skills. A focus will be placed on using mathematics as a key to understanding the world, in order to meet the challenges of a dynamic society.

The majority of instructional time in Grade 4 Mathematics will focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; and (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Students generalize their understanding of place value to 1,000,000. They apply their understanding of models for multiplication, place value, and properties of operations (in particular the distributive property) to compute products of multi-digit numbers. Students develop fluency with efficient procedures for multiplying and dividing whole numbers. They extend previous understandings about fractions by developing an understanding of fraction equivalence and operations with fractions. Additionally, students describe, analyze, compare, and classify two-dimensional shapes.

### **Measurable objectives to be attained by students:**

Specific objectives for this course are aligned to the Pennsylvania Core Standards for Mathematics and the Common Core State Standards for Mathematics as outlined in the Scope and Sequence for Grade 4 Mathematics.

### **Instructional Strategies:**

Below is a list of suggested strategies for high-quality instruction in mathematics:

- Instructional components outlined in the *Framework for Teaching* by Charlotte Danielson
- Use Concrete Representational Abstract (CRA) representations
- Promote productive struggle
- Promote mathematical discourse
- Use precise mathematical language

### **Estimated Instructional Time:**

90 minutes per day

### **Forms of Assessment to Measure Attainment of Course Objectives:**

- Universal Screener
- Progress Monitoring
- Diagnostic Assessments
- Curriculum-based measures
- Benchmark Assessments
- Formative Assessments
- Summative Assessments

### **Resources:**

#### **Text Resources:**

- Charles, Randall I., et al. *enVisionmath2.0. Assessment Sourcebook*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Student Edition, Volume 1 & 2*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Teacher's Edition, Overview, Volume 1 & 2*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Problem-Solving Reading Activity Guide*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Teacher's Resource Masters, Volume 1 & 2*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Today's Challenge Teacher's Guide*, Grade 4, Pearson, 2016.

#### **Technology:**

- Charles, Randall I., et al. *enVisionmath2.0. PA Student Edition, Digital Courseware*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Teacher Edition, Digital Courseware*, Grade 4, Pearson, 2016.
- District approved supplemental technology

#### **Other Resources:**

- Charles, Randall I., et al. *enVisionmath2.0. Math Diagnosis and Intervention System 2.0*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Mathematical Practice Posters*, Grade 4, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Quick-And-Easy Centers Kit For Differentiated Instruction*, Grade 4, Pearson, 2016.
- Manipulatives
- Teacher created resources
- District approved supplemental resources

### **Spanish Immersion:**

Grade 4 Mathematics for Spanish Immersion is aligned to this course. Resources for Spanish Immersion are in Spanish.