



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

Planned Course for Mathematics

Course: Grade 6 Mathematics

Standards:

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

- 6.RPA Ratios & Proportional Relationships
- 6.NS The Number System
- 6.EE Expressions & Equations
- 6.G Geometry
- 6.SPA Statistics & Probability

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 6 Mathematics will focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using these concepts to solve problems; (2) completing an understanding of division of fractions and extending the idea of numbers to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations accurately; and (4) developing an understanding of statistical thinking. Students will use reasoning about multiplication and division to solve ratio and rate problems about quantities. In addition, they will develop an understanding of fractions and the relationship between multiplication and division to explain why the procedures for dividing fractions make sense. Students will also develop an understanding of variables in mathematical expressions. They will learn to write expressions and equations that correspond to given situations, as well as use expressions and formulas to solve problems. Students will begin to develop their ability to think statistically, recognize data distribution, and measures of variability.

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 6 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. Additional Practice Workbook*, Grade 6, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Assessment Sourcebook*, Grade 6, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Student Edition, Volume 1 & 2*, Grade 6, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Teacher's Edition, Overview, Volume 1 & 2*, Grade 6, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. Teacher's Resource Masters, Volume 1 & 2*, Grade 6, Pearson, 2016.

Technology:

- Charles, Randall I., et al. *enVisionmath2.0. PA Student Edition, Digital Courseware*, Grade 6, Pearson, 2016.
- Charles, Randall I., et al. *enVisionmath2.0. PA Teacher Edition, Digital Courseware*, Grade 6, Pearson, 2016.
- District approved supplemental technology

Other Resources:

- Charles, Randall I., et al. *enVisionmath2.0. Mathematical Practice Posters*, Grade 6, Pearson, 2016.
- Manipulatives
- Teacher created resources
- District approved supplemental resources