



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

Planned Course for Mathematics

Course: Extended Grade 6 Mathematics

Standards:

This course is aligned to standards within the following 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

7.RPA Ratios and Proportional Relationships

7.NS The Number System

7.EE Expressions and Equations

7.G Geometry

7.SP Statistics and 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.

EXTENDED GRADE 6 MATHEMATICS is an accelerated course that addresses mathematical content from Grade 6 and Grade 7. Instruction will focus on five critical areas of the Grade 6 and 7 content. (1) Ratio and Proportional Relationships: Students will connect ratio and rate to whole number multiplication and division and use these concepts to solve problems. They will extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. (2) Numbers and Operations: Students will complete an understanding of division of fractions. They will also extend the idea of numbers to the system of rational numbers, which includes negative numbers. (3) Expressions and Equations: Students will learn to write expressions and equations that correspond to given situations, as well as use expressions and formulas to solve problems. They will develop an understanding of operations with rational numbers while working with expressions and linear equations. (4) Geometry: Students will solve problems involving scale drawings and informal geometric constructions, including working with two- and three-dimensional shape to solve problems involving area, surface area, and volume. (5) Statistics and Probability: Students will begin to develop their ability to think

statistically, recognize data distribution, and measures of variability. Additionally, students will draw inferences about populations based on data samples.

Prerequisite(s):

- Placement recommendation based on a holistic review of both student achievement and growth data

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 Extended 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:

Approximately 90 minutes per day for one school year

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:

Student Text Resources:

Larson, Ron, and Laurie Boswell. *Big Ideas Math: Modeling Real Life Common Core Grade 6 and Grade 7*. Big Ideas Learning, LLC, 2019.

- Student Text Printed Version
- Student Text Online Version
- Student Journal

Teacher Resources:

Larson, Ron, and Laurie Boswell. *Big Ideas Math: Modeling Real Life Common Core Grade 6 and Grade 7*. Big Ideas Learning, LLC, 2019.

- Teacher’s Guide Printed Version with Online Access
- Assessment Book
- Resources by Chapter
- Rich Math Tasks
- Skills Review Handbook

Technology:

- District approved supplemental technology

Other Resources:

- Manipulatives
- Teacher created resources
- District approved supplemental resources