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

Planned Course for Mathematics

Course: Extended Grade 7 Mathematics

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

7.RPA	Ratios and Proportional Relationships
7.NS	The Number System
7.EE	Expressions and Equations
7.G	Geometry
7.SP	Statistics and Probability
8.NS	The Number System
8.EE	Expressions and Equations
8.F	Functions
8.G	Geometry
8.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 7 MATHEMATICS is an accelerated course that addresses mathematical content from Grade 7 and Grade 8. Instruction will focus on five mathematical domains of Grade 7 and 8 content. (1) Ratios and Proportional Relationships: Students will extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. (2) The Number System: Students will develop an understanding of operations with rational numbers while working with expressions and linear equations. (3) Expressions and Equations: Students will focus on formulating and reasoning with expressions and equations. This will include modeling an association using a linear equation and solving linear equations. Students will build an understanding of a function and work with using functions to describe quantitative relationships. (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. Additionally, two- and three-dimensional space and figures using distance, angle, similarity, and congruence will be explored.

Student will also develop an understanding of and ability to apply the Pythagorean Theorem. (5) Statistics and Probability: 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 7 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 46 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 7 Advanced*. 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 7 Advanced*. Big Ideas Learning, LLC, 2019.
- Teacher's Guide Printed Version with Online Access
- Assessment Book
- Resources by Chapter
- Rich Math Tasks

Technology:
- District approved supplemental technology

Other Resources:
- Manipulatives
- Teacher created resources
- District approved supplemental resources