# MATHEMATICS CURRICULUM

**MISSION STATEMENT**

The mission of the Math department is to ensure all students receive a solid background in mathematics that enables them to reason with numbers, problem solve, measure in various units, and to understand and apply algebraic and geometric concepts.  We will provide students with the math skills necessary for career and post-secondary opportunities in the 21st Century society and economy.

The Math Program at SVRCS is designed to build knowledge, skill, understandings, and competencies aligned to the PA Core Standards for Mathematical Content and Practice:

**STANDARDS OF MATHEMATICAL CONTENT**
**2.1 Numbers and Operations**
*A) Counting and Cardinality*
*B) Numbers and Operations in Base Ten*
*C) Numbers and Operations—Fractions*
*D) Ratios and Proportional Relationships*
*E) The Number System*
*F) Number and Quantity*

**2.2 Algebraic Concepts**
*A) Operations and Algebraic Thinking*
*B) Expressions & Equations*
*C) Functions*
*D) Algebra*
**2.3 Geometry**
*A) Geometry*

**2.4 Measurement, Data, and Probability**
*A) Measurement and Data*
*B) Statistics and Probability*


**STANDARDS OF MATHEMATICAL PRACTICE**

- *Make sense of problems and persevere in solving them.*
- *Reason abstractly and quantitatively.*
- *Construct viable arguments and critique the reasoning of others.*
- *Model with mathematics.*
- *Use appropriate tools strategically.*
- *Attend to precision.*
- *Look for and make use of structure.*
- *Look for and make sense of regularity in repeated reasoning.*


**ELEMENTARY MATHEMATICS PROGRAM**

SVRCS uses the Everyday Math 4th edition to deliver core-aligned math content to grades K-5.  This program delivers appropriate grade-level content to build knowledge and competencies to meet PA Core Standard expectations.  The curriculum provides the foundations in number sense, mathematical operations, proportions, fractions, patters, geometry, measurement, data, and statistics so that they can move on successfully into the higher, more abstract disciplines in middle and high school.


**MIDDLE LEVEL MATHEMATICS PROGRAM**

SVRCS uses Glencoe Math ©2015 to deliver core-aligned content for grade 6, Pre-algebra, Algebra 1, and Algebra 2.  The curriculum moves students towards and into the higher levels of math that are key to post-secondary study and careers in the 21st Century.


**HIGH SCHOOL LEVEL MATHEMATICS PROGRAM**

SVRCS continues with Glencoe Math to deliver core-aligned content for Algebra 2, Geometry, and Trigonometry/Pre-calculus.  Calculus is offered using Brief Calculus: an Applied Approach from Cengage Learning.  These courses give student advanced knowledge and understanding of higher disciplines of mathematics.

# SVRCS Mathematics Sequence

| GRADE | COURSE | COURSE NUMBER |
|---|---|---|
| Kindergarten | Math Grade K | 50010 |
| 1$^{st}$ grade | Math Grade 1 | 50110 |
| 2$^{nd}$ grade | Math Grade 2 | 50210 |
| 3$^{rd}$ grade | Math Grade 3 | 50310 |
| 4$^{th}$ grade | Math Grade 4 | 50410 |
| 5$^{th}$ grade | Math Grade 5 | 50510 |
| 6$^{th}$ grade | Math Grade 6 | 50610 |
| 7$^{th}$ grade | Math 7  or  Accelerated Math 7 | 17002 or 17010 |
| 8$^{th}$ grade | Math 8 or Algebra 8 | 17001 or 17003 |
| 9$^{th}$ grade | Algebra I or Keystone Algebra | 17005 or 17905 |
| 10$^{th}$ grade | Geometry or Keystone Algebra | 17025 or 17905 |
| 11$^{th}$ grade | Algebra 2 or Trigonometry | 17006 or 17008 |
| 12$^{th}$ grade | Trigonometry or Calculus or Math 12 | 17008 or 17009 or 17012 |