

# **Welcome to ETR Middle School Mathematics**

## **Introduction**

The primary curriculum resource for ETR math program is [enVision Mathematics 2024](#) by the Savvas Learning Company. Problem-based exploration and visual learning experiences are the instructional core of enVision Math.

At the start of each new topic or sub-topic, mathematical topics, concepts and procedures are introduced to students through a problem-based investigative experience, called Solve and Share. Students are tasked to analyze available facts, evidence, observations, and arguments to form a judgement or arrive at a conclusion about a real-world math problem. Students then evaluate options to explain or rationalize their thinking, collaborate with peers, and present solutions.

These activities are followed by enhanced direct instruction incorporating student thought processes and proposed solutions by making connections to the lesson's objectives and anticipated learning outcomes – all being grounded in Common Core and PSSA Standards of Mathematics. Students are then provided with guided and independent practice to deepen their understanding of concepts.

The enVision program supports teachers in monitoring and supporting student understanding with options to tailor assignments and content to each student's learning level. These take the form of in-class assignments, at-home work, formative, and summative assessments.

Additional information and resources, provided by enVision, are available on this web page and contain more details about the program and some helpful tools and tips for parents to assist students. Parents can also visit [www.savvas.com](http://www.savvas.com) to learn more.

More detailed information will be shared by classroom teachers through course syllabi and Canvas pages.

## **enVision courses taught at ETR Middle School include:**

- Math 6
- Math 7
- Math 8 (Pre-Integrated Math I)
- Accelerated 7
- Integrated Mathematics I
- Integrated Mathematics II

### Grade 6

- Grade Level Students – Math 6
- Enriched Level Students – Select Topics from Math 6/Accelerated 7
- Accelerated Students – Accelerated 7

### Grade 7

- Grade Level Students – Math 7
- Enriched Level Students – Select Topics from Accelerated 7
- Accelerated Students – Integrated Mathematics I

### Grade 8

- Grade Level Students – Math 8 Text (Pre-Integrated Math I Course)
- Enriched Level Students – Integrated Mathematics I
- Accelerated Students – Integrated Mathematics II (Keystone Exam Course)

## Grade 6 Courses and/or Topics

### **Grade Level 6**

#### Math 6 Topics

- 1: Use Positive Rational Numbers
- 2: Integers and Rational Numbers
- 3: Numeric and Algebraic Expressions
- 4: Represent and Solve Equations and Inequalities
- 5: Understand and Use Ratio and Rate
- 6: Understand and Use Percent
- 7: Solve Area, Surface Area and Volume Problems
- 8: Display, Describe and Summarize Data

### **Enriched Grade 6**

#### Math 6 Topics

- 1: Use Positive Rational Numbers
- 2: Integers and Rational Numbers
- 3: Numeric and Algebraic Expressions
- 4: Represent and Solve Equations and Inequalities
- 5: Understand and Use Ratio and Rate
- 6: Understand and Use Percent
- 7: Solve Area, Surface Area and Volume Problems
- 8: Display, Describe and Summarize Data

#### Accelerated 7 Topics

- 1: Rational Number Operations
- 2: Real Numbers
- 3: Analyze and Use Proportional Relationships
- 4: Analyze and Solve Percent Problems

### **Accelerated Grade 6**

#### Accelerated 7 Topics

- 1: Rational Number Operations
- 2: Real Numbers
- 3: Analyze and Use Proportional Relationships
- 4: Analyze and Solve Percent Problems
- 5: Generate Equivalent Expressions
- 6: Solve Problems Using Equations and Inequalities
- 7: Analyze and Solve Linear Equations
- 8: Use Sampling to Draw Inferences About Populations
- 9: Probability
- 10: Solve Problems Involving Geometry
- 11: Congruence and Similarity
- 12: Understand and Apply the Pythagorean Theorem
- 13: Solve Problems Involving Surface Area and Volume

## Grade 7 Courses and/or Topics

### **Grade Level 7**

#### Math 7 Topics

- 1: Rational Number Operations
- 2: Analyze and Use Proportional Relationships
- 3: Analyze and Solve Percent Problems
- 4: Generate Equivalent Expressions
- 5: Solve Problems Using Equations and Inequalities
- 6: Use Sampling to Draw Inferences About Populations
- 7: Probability
- 8: Solve Problems Involving Geometry

### **Enriched Grade 7**

#### Accelerated 7 Topics

- 5: Generate Equivalent Expressions
- 6: Solve Problems Using Equations and Inequalities
- 7: Analyze and Solve Linear Equations
- 8: Use Sampling to Draw Inferences About Populations
- 9: Probability
- 10: Solve Problems Involving Geometry
- 11: Congruence and Similarity
- 12: Understand and Apply the Pythagorean Theorem
- 13: Solve Problems Involving Surface Area and Volume

### **Accelerated Grade 7**

#### **Integrated Mathematics I Topics**

- 1: Solving Equations and Inequalities
- 2: Linear Equations
- 3: Linear Functions
- 4: Systems of Linear Equations and Inequalities
- 5: Exponents and Exponential Functions
- 6: Foundations of Geometry
- 7: Parallel and Perpendicular Lines
- 8: Transformations
- 9: Triangle Congruence
- 10: Statistics

## Grade 8 Courses and/or Topics

### **Grade Level 8**

#### Math 8 Topics

- 1: Real Numbers
- 2: Analyze and Solve Linear Equations
- 3: Use Functions to Model Relationships
- 4: Investigate Bivariate Data
- 5: Analyze and Solve Systems of Linear Equations
- 6: Congruence and Similarity
- 7: Understand and Apply the Pythagorean Theorem
- 8: Solve Problems Involving Surface Area and Volume

### **Enriched Grade 8**

#### Integrated Mathematics I Topics

- 1: Solving Equations and Inequalities
- 2: Linear Equations
- 3: Linear Functions
- 4: Systems of Linear Equations and Inequalities
- 5: Exponents and Exponential Functions
- 6: Foundations of Geometry
- 7: Parallel and Perpendicular Lines
- 8: Transformations
- 9: Triangle Congruence
- 10: Statistics

### **Accelerated Grade 8**

#### Integrated Mathematics II Topics

- 1: Exponents and Roots
- 2: Polynomials and Factoring
- 3: Quadratic Functions
- 4: Solving Quadratic Equations
- 5: Quadratic Equations and Complex Numbers
- 6: Working with Functions
- 7: Relationships in Triangles
- 8: Quadrilaterals and Other Polygons
- 9: Similarity and Right Triangles
- 10: Probability
- 11: Coordinate Geometry
- 12: Circles
- 13: Two- and Three-Dimensional Models