



Welcome to OnTRACK Grade 8 Math!

OnTRACK lessons, funded by the Texas Education Agency, align with the Texas Essential Knowledge and Skills in ELAR, Mathematics, Science, and Social Studies. Each lesson includes engaging content, interactive experiences, assessment and feedback, and links to additional resources.

Available in TEA's Project Share, OnTRACK lessons supplement classroom instruction and intervention with dynamic learning experiences that use video, graphics, and online activities.

While these lessons are organized into Project Share courses, they do not cover every student expectation in the TEKS for the corresponding SBOE-approved course. Students cannot earn course credit by completing OnTRACK lessons.

The **OnTRACK Grade 8 Math** course has been restructured to align with the 2014 TEKS and consists of 4 modules (28 total lessons) which you can access through the Lessons link at left. The table below provides descriptions of the modules and lessons that are currently available, along with the TEKS that are addressed in each lesson. **(Note, you must be enrolled in the course to access the lessons.)**

We recommend that you use <u>Firefox</u> to view these lessons, and that you <u>update your</u> <u>browser plugins</u> before getting started.

| Module | Lesson Title | TEKS |
|--------------------------------|--|-----------------------------|
| 1 Numbers and Operations | Evaluating Solutions for Reasonableness | (1)(B) (8)(C) |
| | Approximating the Value of Irrational Numbers | (2)(B) |
| | Expressing Numbers in Scientific Notation | (2)(C) |
| | Comparing and Ordering Rational Numbers | (2)(D) |
| 2 Proportionality | Generalizing Proportions from Similar Figures | (3)(A) |
| | Graphing Dilations, Reflections and Translations | (3)(B) (3)(C) (10)(A) |

| | Graphing and Applying Coordinate Dilations | (3)(B) (3)(C) (10)(A) (10)(B) |
|---------------------------------|--|--|
| | Developing the Concept of Slope | (4)(A) |
| | Graphing Proportional Relationships | (4)(B) |
| | Determining Slopes from Equations, Graphs, and Tables | (4)(C) |
| | Generating Different Representations of Relationships | (5)(A) (5)(B) (5)(I) |
| | Analyzing Scatterplots | (5)(C) (5)(D) (11)(A) |
| | Comparing and Contrasting Proportional and Non-proportional Linear Relationships | (5)(F) (5)(H) |
| | Determining if a Relationship is a Functional Relationship | (5)(G) |
| 3 Expressions, | Using Models to Connect to and Understand Volume Formulas | (6)(A) (6)(B) |
| Equations, and Relationships | Demonstrating the Pythagorean Theorem | (6)(C) |
| | Estimating Measurements and Using Formulas: Surface Area | (7)(B) |
| | Estimating Measurements and Using Formulas: Volume | (7)(A) |
| | Estimating Measurements and Using Models and Formulas: 3-Dimensional Figures | (7)(A) (7)(B) |
| | Using the Pythagorean Theorem to Solve Indirect Measurements | (7)(C) (7)(D) |
| | Predicting, Finding, and Justifying Solutions to Problems | (8)(A) (8)(B) (8)(C) |
| | Writing Geometric Relationships | (8)(D) |

| | Solutions of Simultaneous Equations | (9) |
|---|---|-------------------------------|
| 4 Two-Dimensional Shapes, Measurement, and Data | Comparing and Explaining Transformations | (10)(A) (10)(B) (10)(C) |
| | Determining the Effects of Proportional Change on Perimeter | (10)(D) |
| | Determining the Effects of Proportional Change on Area | (10)(D) |
| | Mean Absolute Deviation | (11)(B) |
| | Generalizing about Populations from Random Samples | (11)(C) |