Mathematics
Grade 7 Math Public Overview

1st 9 Weeks
Assessments MAP Growth Math: September 2, 2026 – September 3, 2026
What are we learning? **How can I help at home?**

Module 1: Thinking Proportionally

In *Thinking Proportionally*, students learn how to understand and use relationships between numbers through ratios, rates, and proportions. Instead of just memorizing formulas, students focus on making sense of how quantities relate to one another by comparing values, identifying patterns, and reasoning about how one quantity changes in relation to another. They solve real-world problems, use multiple representations like tables and graphs, and explain their thinking to build a deeper understanding of mathematical relationships.

Essential Question:
How can we use ratios, rates, and proportional relationships to understand and solve real-world problems?

Timeline: August 11 – October 1
Essential Standards: 7.4A, 7.4D, 7.9B, 7.9C
Link to TEKS/Parent Guide:

- Texas Essential Knowledge and Skills for Mathematic Grade 7
- Topic Family Guides aligned to the module are available through your students' digital access and can be found in Student Topic Resources.

Content: Students …

- Explore circles, discover the meaning of π (pi), and learn formulas for circumference and area.
- Work with unit rates (like cost per item or miles per hour), including situations with fractions, and solve real-world problems using proportions.
- Learn how to recognize and represent proportional relationships using tables, graphs, and equations, and understand how one quantity changes in relation to another.

At-Home Connection:

- **Measure and Compare Circles at Home:** Have your child measure the diameter and circumference of round objects (plates, lids, wheels) to see how they relate and estimate π.
- **Find the Best Buy While Shopping:** When grocery shopping, ask your child to compare prices using unit rates (cost per ounce or item) to determine which option is the best value.
- **Connect Rates to Everyday Activities:** Track something like distance walked over time or money earned for chores, and have your child calculate and explain the rate (e.g., miles per hour or dollars per hour).

Module 2: Applying Proportionality *(Continues in 2nd 9 Weeks)*

In *Applying Proportionality*, students learn how to use ratios, rates, and percents to solve real-world problems such as discounts, taxes, tips, and budgeting, while also exploring percent change, scale drawings, and interest. By the end of the module, students connect math to everyday situations and use tables, graphs, and equations to represent relationships and make informed decisions.

Essential Question:

How can proportional reasoning help us solve real-world problems involving money, measurements, and relationships?

Timeline: October 2 – November 13
Essential Standards: 7.4D, 7.5C
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Content: Students …

- Solve percent problems using proportions, percent equations, and the constant of proportionality.
- Apply percent increase and decrease to real-world situations, including money and measurements.
- Use proportional reasoning to solve problems involving scale drawings and similar figures.
- Calculate and compare financial situations such as tips, commissions, taxes, and simple vs. compound interest.
- Analyze financial literacy concepts by creating budgets, interpreting circle graphs, and determining net worth using assets and liabilities.

At-Home Connection:

- **Compare prices while shopping:** Have your child calculate discounts, coupons, or tax to decide which deal is better.
- **Plan a simple budget:** Work together to divide a monthly amount into categories (food, savings, entertainment) and discuss spending choices.
- **Calculate tips or interest:** When dining out or saving money, have your child estimate tips or interest earned to connect math to real-life decisions.

2nd 9 Weeks
Assessments N/A
What are we learning? **How can I help at home?**
Module 2: Applying Proportionality *(Continued)* *See 1st 9 weeks for details*

Module 3: Reasoning Algebraically (*Continues in 3rd 9 weeks*)

In *Reasoning Algebraically*, students build skills in working with positive and negative numbers while learning how to represent and solve problems using algebra. They explore how expressions, equations, and inequalities can describe real-world situations and practice solving them using logical steps and reasoning. Throughout the module, students connect different ways of showing math—such as graphs, tables, and equations—to better understand relationships and explain their thinking. By the end, students are able to model real-life situations, solve multi-step problems, and justify their solutions clearly.

Essential Question:

How can we use numbers, equations, and multiple representations to model and solve real-world problems?

Timeline: November 16 – February 9
Essential Standards: 7.3B, 7.4A, 7.4D, 7.7A, 7.11A
Link to TEKS/Parent Guide:

- Texas Essential Knowledge and Skills for Mathematic Grade 7
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Content: Students …

- Model and solve two-step equations and inequalities using tools such as bar models, algebra tiles, and number lines
- Write equations and inequalities to represent real-world situations and explain solutions
- Analyze relationships between variables using tables, graphs, equations, and verbal descriptions
- Connect multiple representations (tables, graphs, equations) to understand and solve problems

At-Home Connection:

- **Analyze finances at home:** Have students track money earned or spent (allowance, purchases) using positive and negative numbers and calculate totals.
- **Solve everyday problems with equations:** Ask students to write and solve equations for situations like splitting costs, saving money over time, or comparing prices.
- **Use graphs and tables in real life:** Have students track something over time (temperature, screen time, or distance walked) and represent it with a table or graph to analyze trends.

3rd 9 Weeks

Assessments

MAP Growth Math: January 20, 2027 – January 21, 2027

Module 3: Reasoning Algebraically *(Continued)*

See 2nd 9 weeks for details

Module 4: Analyzing Populations and Probabilities *(Continues in 4th 9 weeks)*

In this module, students learn how to understand chance and use data to make decisions. They begin by learning what probability means and how to describe how likely something is to happen. Then, they explore situations with more than one event and learn how to calculate the chances of those combined outcomes. Finally, students learn how to collect data from a group, analyze it, and use it to make predictions about a larger population.

Essential Question:

How can we use probability and data to make predictions and draw conclusions about real-world situations?

Timeline: February 10 – April 16
Essential Standards: 7.6G, 7.6H, 7.6I, 7.12A
Link to TEKS/Parent Guide:

- Texas Essential Knowledge and Skills for Mathematic Grade 7
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Content: Students …

- Explore how likely events are and test their predictions.
- Organize and represent possible outcomes in different ways.
- Use models and reasoning to calculate and compare probabilities.
- Solve problems involving simple and compound events.
- Collect, analyze, and interpret data from samples.
- Use data to compare groups and make real-world predictions.

At-Home Connection:

- **Play and predict games:** Have your child play a game with dice, coins, or cards and predict the chances of certain outcomes, then test their predictions by playing multiple times.
- **Analyze everyday chances:** Ask your child to estimate the probability of everyday events (rain, making a shot in a game, choosing a certain item) and explain their reasoning.
- **Use data in real life:** Look at real data together, such as sports statistics or survey results, and have your child explain what the data shows and make predictions.

4th 9 Weeks
Assessments STAAR (April 26 – April 28) MAP Growth Math: May 5, 2027 – May 6, 2027
What are we learning? **How can I help at home?**
Module 4: Analyzing Populations and Probabilities *(Continued)* *See 3rd 9 weeks for details*

Module 5: Constructing and Measuring

In this module, students learn how to measure and understand shapes in both 2D and 3D. They explore how angles are related and use equations to find missing angle measures. Then, they build on this knowledge to find the area of complex shapes and calculate the surface area and volume of three-dimensional objects like prisms and pyramids. Throughout the module, students use tools, models, and real-world examples to make sense of geometry concepts.

Essential Question:

Timeline: April 19 – May 27
Essential Standards: 7.9A, 7.9C
Link to TEKS/Parent Guide:

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Content: Students …

- Explore angle relationships and use equations to find missing angle measures.
- Identify and apply different types of angle pairs (such as complementary, supplementary, and vertical angles).
- Break apart and combine shapes to calculate the area of complex figures.
- Use nets and models to determine the surface area of three-dimensional shapes.
- Explore and apply formulas to calculate the volume of prisms and pyramids.

At-Home Connection:

- **Find and measure angles at home**: Look for angles around your home (like corners, window panes, or objects with crossing lines) and have your child identify how angles work together—whether they add to make a right angle, are opposite each other and equal, or sit next to each other to form larger angles.
- **Calculate space in your home:** Work together to calculate to total area of your home.
- **Build and explore 3D shapes:** Use paper or boxes to create simple prisms or pyramids, then discuss how much space they hold (volume) or how much material would be needed to cover them (surface area).