

Unit 2: Introducing Proportional Relationships

Family Resources for Math 7 Unit 2: Introducing Proportional Relationships

Unit 2 is the Project Based Learning (PBL) unit for Math 7!

Mathematical learning through project-based learning is designed to help students see math as meaningful, useful, and connected to the real world. Instead of learning isolated lessons, students engage in a project that requires them to apply mathematical ideas in purposeful ways. In this approach, math becomes a tool for exploring situations, making decisions, and explaining thinking. As students work through an appropriate project of their choice, they collect data, look for patterns, develop plans, and revise their work—all while using mathematics to make sense of complex situations.



Students are **not expected to know everything before they begin**. New math concepts and skills are learned as challenges arise throughout the project.



Learning happens in meaningful contexts, helping students understand how math is useful in everyday life.



Students investigate examples, ask questions, practice strategies, and receive guidance as they work toward solutions.



Students work with others, share ideas, and explain their reasoning, strengthening both understanding and confidence.



Students demonstrate their understanding through presentations and sharing their work with classmates, teachers, and other audiences.



Through perseverance, presentations, and reflection, students grow into capable problem-solvers who see themselves as successful math learners.

PROJECT BASED LEARNING



For additional information and resources to support at home, please visit the [Office of Mathematics website](#).

Big Ideas in Unit 2

Within this unit, students will learn these big ideas:

- Representing Proportional Relationships with Tables
- Representing Proportional Relationships with Equations
- Comparing Proportional and Nonproportional Relationships
- Representing Proportional Relationships with Graphs

For more details about this unit, see [Unit 2 Family Resources](#).

Lesson Specific Resources

Use the links below to learn about the learning from each lesson.

Lesson Link
2.1 One of These Things Is Not Like the Others
2.2 Introducing Proportional Relationships with Tables
2.3 More about Constant of Proportionality
2.4 Proportional Relationships and Equations
2.5 Two Equations for Each Relationship
2.6 Writing Equations to Represent Relationships
2.7 Comparing Relationships with Tables
2.8 Comparing Relationships with Equations
2.9 Solving Problems about Proportional Relationships
2.10 Introducing Graphs of Proportional Relationships
2.11 Interpreting Graphs of Proportional Relationships
2.12 Using Graphs to Compare Relationships
2.13 Two Graphs for Each Relationship
2.14 Four Representations
2.15 Using Water Efficiently