

Scope Overview: Ratios, Rates, and Unit Rates

Standards

Understand ratio concepts and use ratio reasoning to solve problems.

- Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.
- Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship.
- Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 - Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
 - Solve unit rate problems including those involving unit pricing and constant speed.

Explain

- Picture Vocabulary
- Interactive Vocabulary
- Show What You Know
- Anchor Chart
- Interactive Notebook

Instructional elements in STEMscopes Mathematics are intended to work together. The elements in the Explain and Elaborate sections can be used to support student learning and provide opportunities to practice while the students are exploring the concept.

Engage

- ◆ Accessing Prior Knowledge: Use Models to Determine Equivalent Fractions
- ◆ Foundation Builder: Use Models to Determine Equivalent Fractions
- ★ Hook: He's a Baller!

Explore

- Explore 1: Ratios Exit Ticket
 - ◆ Show What You Know: Part I
- Explore 2: Ratio Tables and Graphs Exit Ticket
 - ◆ Show What You Know: Part II
- Explore 3: Rates and Unit Rates Exit Ticket
 - ◆ Show What You Know: Part III

If the APK reveals that students are not ready, move to the Foundation Builder!

Home

- Scope Overview
- Content Support
- Standards Unwrapped
- Parent Letter

Elaborate

- Fluency Builder
 - Concentration
- Spiraled Review
- Data Science
- Interactive Practice
 - All the Marbles
 - Space Chef
- PhET
 - Proportion Playground: Ratios

Once all of the Explores have been taught, go back to the Hook for students to apply knowledge learned.

Evaluate

- Mathematical Modeling Task
- Standards-Based Assessment
- Skills Quiz

Intervention

- Skill Review and Practice
- Interactive Skill Review
- Supplemental Aids

Acceleration

- Choice Board
- Would You Rather