

## Core Connections, Course 2 Overview

CMP



*Core Connections, Course 2* is the second of a three-year sequence of courses designed to prepare students for a rigorous college preparatory high school mathematics course.

On a daily basis, students in *Core Connections, Course 2* use problem-solving strategies, questioning, investigating, analyzing critically, gathering and constructing evidence, and communicating rigorous arguments justifying their thinking. Under teacher guidance, students learn in collaboration with others while sharing information, expertise, and ideas. The course helps students to develop multiple strategies to solve problems and to recognize the connections between concepts. The lessons in the course meet all of the content standards and embed the "Mathematical Practices" of the Common Core State Standards released in June 2010.

Upon completion of this course, students should be able to:

- Use integers and complete operations with integers and rational numbers, including using the Order of Operations.
- Use diagrams and equal ratios to represent part-whole relationships.
- Use percents and scale factors to determine percent increase or decrease, discounts, and markups.
- Use variable expressions to represent quantities in contextual problems.
- Simplify variable expressions by combining like terms and using the Distributive Property.
- Solve linear equations, including those with fractional coefficients and those with no solutions or infinitely many solutions.
- Solve and graph one-variable inequalities.

- Compare experimental and theoretical probabilities.
- Distinguish between dependent and independent events and calculate the probability of compound independent events.
- Represent probabilities of multiple events using systemic lists, area models, or tree diagrams.
- Design, conduct, and analyze surveys.
- Collect and compare data and describe the distribution of sets of data.
- Solve distance, rate, and time problems.
- Compare ratios and calculate unit rates.
- Recognize and solve problems involving proportional relationships.
- Recognize and use the properties of similar figures and scale factors to solve problems.
- Describe angles, angle pairs, and their measures.
- Compute area and perimeter of standard and compound shapes.
- Compute the volume of a variety of solids.

**Class meeting days and times:**

- Monday and Tuesday: 1:00-2:00
- Wednesday and Thursday: 1:00-1:30
- Friday: 10:30-11:00

**Supplies:**

- 1-inch binder
- 1 pack of looseleaf paper
- 1 2-pocket folder