

Course Description:

Mathematics Grade 5 (2 of 2) explores number sense, geometric principles, data analysis and patterns. Number sense topics include adding, subtracting, multiplying, and dividing fractions. Topics include describing and applying the order of operations to evaluate expressions and solve equations. Geometry topics include finding perimeter and area using two-dimensional shapes and finding the volume of a three-dimensional figure. Data analysis includes exploring a variety of graphs and determining the mean, median, mode, and range. The utilizations of models and problem-solving skills repeat throughout this course as students learn to apply mathematical reasoning skills to real-world scenarios.

Course Objectives:

- Solve real-world problems that add and subtract fractions.
- Solve real-world problems that multiply and divide fractions.
- Multiply fractional side lengths to find areas of rectangles.
- Turn real-world and math descriptions into expressions.
- Solve multi-step expressions using the order of operations.
- Find a rectangle's perimeter and area with fractional or decimal side lengths using pictures and formulas.
- Use formulas to find the volumes of right rectangular prisms.
- Find the volumes of solid figures made up of two right rectangular prisms by adding the volumes of the prisms.
- Convert within the same measurement system.
- Classify 2- and 3-D figures into categories based on their defining qualities.
- Make number patterns using given rules.
- Write a rule as an expression that describes how numbers in a pattern are related.
- Show real-life and math problems by graphing points in the first quadrant of the coordinate plane.
- Show categorical, discrete, and numerical data in different forms.
- Solve one- and two-step problems using data shown in different forms.
- Interpret data shown with tables and line plots by finding their mean, mode, median, and range.

Required Materials:

Required:

- crayons/markers/colored pencils
- paper
- pencils
- ruler
- Two Patterns worksheet
- 100 chart worksheet

Optional:

- drawing program or app
- fraction tiles
- fraction circles

Course Overview:

This course is made up of 12 units. Each unit has five lessons. Lesson are made of up activities that include the following types of learning:

- **Warm-Ups** allow for practice of skills or concepts taught in previous lessons. These are graded activities.
- **Direct Instructions** provide modeling of new skills and concepts. These are not graded activities.
- **Guided Practices** allow for practice of a skill with support. These are graded activities only on a completion basis.
- **Independent Practices** allow for practice of a skill without support. These are graded activities.
- **Checkpoints** test mastery of skills from lessons. These are graded activities.
- **Unit Reviews** allow for practice of skills prior to taking unit exams. These are not graded activities.
- **Unit Exams** test mastery of skills from the unit. These are graded activities.