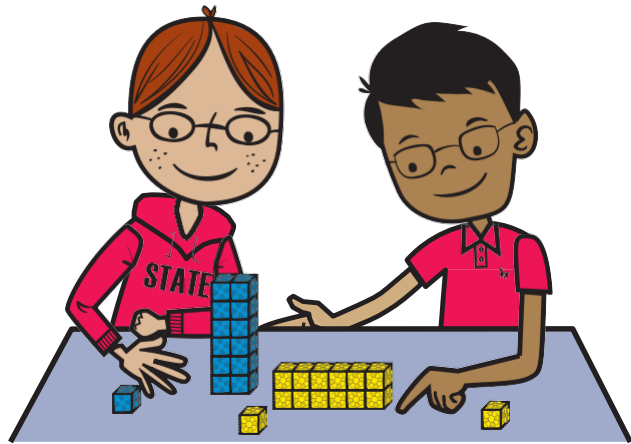


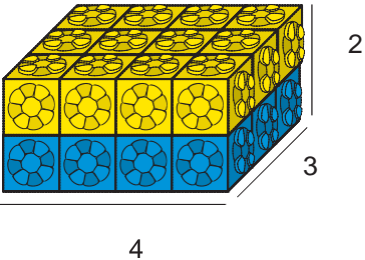
Fairfield Mathematics  
Grade 5 Unit 1  
Factors and Numerical  
Expressions & Volume



In this unit your child will:

- Work with prime and composite numbers
- Use order of operations to solve equations
- Demonstrate an understanding of volume using multiplication
- Find factor pairs for whole numbers

Your child will learn and practice these skills by solving problems like those shown below. Keep this sheet for reference when you're helping with homework. Use the free Math Vocabulary Cards app for additional support: [mathlearningcenter.org/apps](http://mathlearningcenter.org/apps)

PROBLEM	COMMENTS
 <p>A 3D rectangular prism is shown, composed of small cubes. The front face is 4 units wide and 3 units high. The depth is 2 units. The top layer is yellow and the bottom layer is blue. The dimensions are labeled: 4 for width, 3 for height, and 2 for depth.</p>	<p>Students can multiply all three dimensions to find the volume: <math>4 \times 3 \times 2 = 24</math>. Many of the activities in this unit encourage students to see equal layers of cubes. In this example, they can see 2 layers (the height) with 12 cubes in each layer.</p>

PROBLEM	COMMENTS
<p>Write an expression with parentheses to represent this statement: I added 3 and 8 and then multiplied by 7.</p> <div data-bbox="298 285 688 575" style="border: 2px solid black; padding: 10px; text-align: center;"><math display="block">(3 + 8) \times 7</math></div>	<p>Students use parentheses to show which operation happened first. In this case, 3 and 8 are added and then their sum (11) is multiplied by 7. Without the parentheses—<math>3 + 8 \times 7</math>—order of operations dictates that multiplication happens before addition, yielding a different answer. We want students to be comfortable expressing mathematical situations and actions with the symbols—including numerals, operational symbols, and grouping symbols like parentheses—that are the language of mathematics.</p>

## FREQUENTLY ASKED QUESTIONS ABOUT UNIT 1

### **Q: Why do some of these activities look like what my child did in fourth grade?**

**A:** This unit reviews mathematical concepts while introducing and establishing routines that will be used in fifth grade. Teachers assess students' skill level and plan future lessons based on this review. There are also several new ideas in Unit 1, including volume and the conventions of writing and evaluating expressions that include parentheses. A variety of efficient and effective computational strategies are developed and notated. For example, students already familiar with using landmark numbers to simplify such combinations as  $99 \times 87$  now have a way to communicate their thinking numerically and concisely:  $99 \times 87 = (100 \times 87) - (1 \times 87)$ . In a similar manner, they have the tools to communicate and share the strategy of doubling and halving in a mathematically precise way:  $25 \times 36 = (25 \times 2) \times (36 \div 2)$ , or  $50 \times 18$ .

### **Q: How can I help my child and make homework a successful experience?**

**A:** Homework assignments are sent home two or three times a week during the school year. Teachers may also send home Daily Practice pages for additional work with concepts and skills. Although your child is doing similar activities in class, he may need your help at home. Take time to ask him to explain the assignment to you. If he can describe the task clearly and confidently, he can probably complete the assignment independently. Your child has used several models and strategies to solve problems. Encourage him to use ways that make sense to him. Review the completed assignment, and ask your child to explain his thinking about some of the problems.