Fairfield Mathematics Grade 2

Unit 1: Graphing and Fact Strategies (+/-) Up to 20

In this unit your child will:

- ▮ Practice efficient math strategies to add and subtract within 20
- ▮ Explore even and odd numbers
- ▮ Solve addition and subtraction story Fairfield problems
- ▮ Explore ways to represent data

Problem	Comments
Favorite Colors Red ★ ★ ★ ★ Blue ★ ★ ★ ★ ★ Pink ★ ★ ★ ★ ★ ★ Yellow ★ ★	Representations: • Collecting data using a survey and organizing the data on an appropriate graph • Making mathematical statements about a particular graph • Answering questions using data on a graph • Developing mathematical questions that can be answered by a particular graph
Solve the problems. $\begin{array}{r} 4 \\ + 5 \end{array}$ $\begin{array}{r} 5 \\ + 5 \end{array}$ Ten-frames and the number rack are used to see Doubles facts and Doubles Plus and Minus One facts.	**Doubles facts** (such as 7 + 7) are those where a number is added to itself. Students will use doubles to solve larger combinations such as 70 + 70 or 700 + 700. **Doubles Plus or Minus One facts** (such as 6 + 7) may also be solved by thinking about doubles. For example, a combination like 6 + 7 can be thought of as 6 + 6 + 1.
How many children pulled down the shade to take a nap? 8 + **2** = 10 children children children awake napping on the train *"The train car looks like a row on the number rack! I know 8 and 2 more is 10. Two children are napping."* 9 + ⑥ ① ⑤ 9 + 6 = 9 + 1 + 5 = 10 + 5 = 15	**Make Ten facts** are pairs of numbers that equal 10. Being able to instantly recognize combinations that make 10—for example, 3 + 7 = 10—helps when adding 30 + 70 = 100 or 43 + 7 = 50. **Add Ten facts** (10 + 3, 7 + 10) apply when 10 is added to a single-digit number. This strategy helps students work flexibly with tens and ones. **Add Nine facts are** fast when you know how to make 10. If the fact is 9 + 7, as in the example, make 10 (9+1=10), then add 6 more. Students use this strategy to see that 9+7 is the same as 10+6. **Ten-strips** are another model to help students see number facts.

Frequently Asked Questions About Unit 1

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

A: This unit reviews mathematical concepts while introducing and establishing routines that will be used during second grade. This review helps teachers assess students' skill level and plan future lessons in the days and months to come. Time spent on learning expectations and procedures is essential to ensuring a cooperative community of learners where students work together to build mathematical concepts.

Q: Why are students spending time learning strategies? Why not just memorize addition and subtraction facts?

A: Second grade students are expected to use strategies to fluently add and subtract within 20. Bridges develops fluency with strategies to assure a solid understanding of addition and subtraction and provides multiple opportunities to practice basic facts. Visual models like the number rack allow your child to recall a visual picture of the quantity when needed. Students who recall facts from memory are, in many cases, performing calculations based on the strategies explained above. These strategies enhance number sense and carry over to working with larger numbers, so your child can work flexibly and accurately as a problem solver.

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

A: Homework assignments are sent home 2–3 times a week during the school year. Plan on your child spending 15–20 minutes on each. When an assignment is challenging, consider doing it in parts with a break in between. Even though your child is doing similar activities in class, she may need your help at home. Take time to ask her to explain the assignment to you. If your child can describe the task clearly and confidently, she can probably complete the assignment independently. Make yourself available, but assist only when necessary. Review the completed assignment. Ask your child to explain her thinking about some of the problems, give encouragement, and show interest in the work to build her confidence as a mathematician.