InsightMath Texas

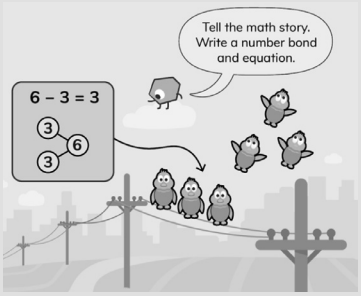
Building Number Sense and Fluency

Family Guide | Grade K | Unit 9

Your student is exploring that mathematics is a way to think about and describe the world.

Key Math Ideas

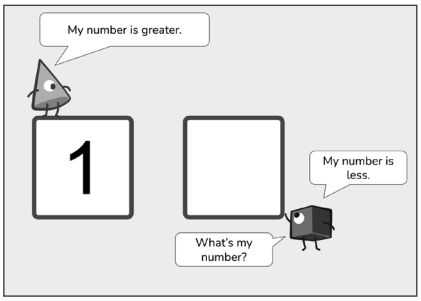
In this unit, students put together multiple math ideas from past units and focus on explaining the math ideas, using multiple strategies or models to solve a problem, and telling their own math stories. For example, in units 4 and 6, students explored addition and subtraction. In this unit, students choose their own strategies to solve addition and subtraction problems and compare their strategies to their peers' strategies. One student may solve 3 + 2 by drawing a picture, while another may use their fingers to show 3 and 2, and another student may use known facts.



Students practice describing situations using math language. For example, in the problem on the left, one student might start with 6 birds total then have 3 fly away to write 6 – 3 = 3, while another might see 3 birds on the wire and 3 flying away so there are 6 birds in all, writing 3 + 3 = 6.

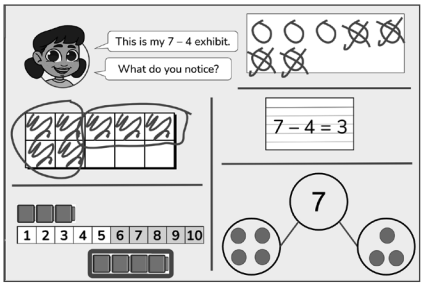
→ In the first part of the unit, your student will learn to

- estimate to answer "how many?" with totals less than 20;
- compare two numerals between 0 and 10;
- determine one more or one less than a number from 0 to 10;
- write a number that is greater or less than a given number.



→ In the middle of the unit, your student will learn to

- fluently add and subtract within 5 (5 – 3 = 2, 2 + 1 = 3);
- fluently solve and write equations for number pairs that total 5 or 10 (10 = □ + 6).



→ In the last part of the unit, your student will learn to

- choose a model to solve addition and subtraction problems;
- solve active addition and subtraction word problems;
- solve part–part–total word problems using both addition and subtraction.

Helpful Hint

Sometimes students look for keywords such as "in all" or "how many" in word problems, but these can lead to misconceptions. When supporting your students to solve word problems, avoid asking your student to look for keywords. For example, "how many" can mean "How many after some have been taken away?" which means students need to subtract. Instead, support your student's understanding of the word problem by asking them to act out or draw the situation, which helps them understand the bigger picture of the problem. The priority is for students to make sense of a problem so they can be flexible mathematical thinkers.

Tips for Supporting Your Student at Home

Questions to Ask Your Student

→ In the first part of the unit:

- What strategy did you use?
- How did you choose that number for your estimate? Would (other number) be a good estimate? Why?

→ In the middle of the unit:

- What strategy did you use?
- How could you solve this problem without making a model? Could you use your fingers, see a picture in your head, or think about the number path instead?

→ In the last part of the unit:

- What strategy did you use?
- Why does this equation match the problem?

If...	Try...
your student is struggling to get started on a problem . . .	talking about what strategies or models they have used for other problems and then picking a familiar strategy to try together.

Student Strengths Spotlight

We learn from our mistakes.	Students may make errors when trying to recall addition and subtraction facts without modeling. This is an opportunity to learn how to check their work.
We try our best.	Students persevere through problems that have multiple solutions and multiple strategies for reaching a solution.

Try This Together!

- **Estimation Everywhere.** Estimate with amounts less than 20. For example, estimate how many slices of fruit are on a plate or how many pencils are in a drawer, then count to check the estimate.
- **Card Compare.** Remove the face cards from a deck of cards. Each player flips a card, then the person whose card is greater keeps both cards and puts them on the bottom of their pile. The winner explains why they won in a full sentence. ("I won because 4 is greater than 2.") Play another game in which the card that is less wins.
- **Adding and Subtracting in the World.** Use addition or subtraction in daily life. For example, while playing at the park, ask your student, "How many friends were already here and how many joined?" While taking a walk around the neighborhood, count houses on both sides of the road and ask "How many in all?" Encourage your student to tell you math stories and check your solutions.
- **How Many Ways?** Give your student an addition or subtraction equation, such as 3 + 6 = □ or 9 – 3 = □ and have your student solve it in as many ways as they can. For example, they might use their fingers, draw a picture, and use a number bond.