Grade-Level Focus

With the emphasis on students understanding mathematical concepts and achieving deeper learning, teachers will teach mathematics differently than in the past. Students will learn to "do math" through real-world situations and focus on fewer topics that are connected in a coherent progression within and across grade levels.

In kindergarten through grade two, student learning focuses on the concepts and skills for addition and subtraction with a special emphasis on place value. They will learn different strategies for addition and subtraction and apply them to solving a variety of problems. Students will develop conceptual understandings about addition and subtraction that form the building blocks for later grades. They will be able to explain why a procedure works and why an answer is correct.

Fluency Expectations

Students will also learn to calculate quickly and accurately. This table shows some of the skills students are expected to develop by the end of each grade, which are part of the Standards for Mathematical Content.

Grade	Examples of Fluency Expectations
K	Fluently add and subtract within 5
1	Fluently add and subtract within 10
2	Know from memory all sums of two one-digit numbers Add/subtract within 100 (using strategies)

To help your student learn mathematics:

- Talk with your student about the mathematics you use every day (counting to tell how many things there are, cooking, making decisions, planning a schedule).
- Talk with the teacher about the problem-solving strategies students are learning, and help your student practice them at home.

For more information on the California State Standards for Mathematics and ideas for helping your student succeed, check out these resources:

- The Common Core Resources Web page is online at http://www.cde.ca.gov/re/cc/. Start by clicking on the Students/Parents tab.
- The California Common Core State Standards for Mathematics are available online at http://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf.
- The Mathematics Framework for California Public Schools is available online at http://www.cde.ca.gov/ci/ma/cf/index.asp.
- Mathematics instruction in Transitional Kindergarten is based on the California Preschool Learning Foundations, which are available online at http://www.cde.ca.gov/sp/cd/re/psfoundations.asp.

Produced for the Consortium for the Implementation of the Common Core State Standards under the leadership of the Curriculum Frameworks and Instructional Resources Division of the California Department of Education and the Sacramento County Office of Education.

What Your Student Will Learn:

California State Standards for Mathematics

The California State Standards for Mathematics are based on three major principles: focus, coherence, and rigor. There are two types of standards—the Standards for Mathematical Practice and Standards for Mathematical Content—that together define the mathematics students need to understand, know, and be able to do at each grade level.

Thinking Like a Mathematician

The Standards for Mathematical Practice (MP) help students learn to think like mathematicians—to apply mathematics to solve real-world problems, be resourceful, reason about numbers, and explain and defend their answers. When students apply MP.5, they use math drawings and other tools to solve problems and better understand how mathematics works, as shown in the table and the example problems that follow.

Grade	Examples of MP.5: Use appropriate tools strategically.
K	Students use objects (counters, connecting cubes, tiles) to represent two quantities and compare them.
1	Students may use math drawings to support conceptual understanding as they solve addition and subtraction problems.
2	Students may decide to solve a word problem using a math drawing instead of writing an equation. They use the drawing to help explain their answer.

Example Problems

1

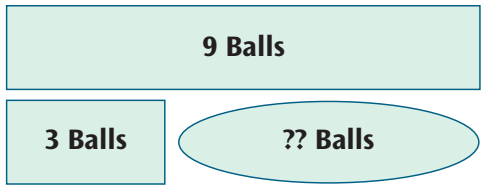
A kindergarten student might use tiles to determine if there are more triangles or squares.

Student says: "I lined up 1 square with 1 triangle. Since there is 1 extra triangle, there are more triangles than squares."

2

Here is a drawing a first-grade student could use to solve a problem. In this example, rather than drawing the actual objects (balls), the student uses the numbers in the problem (3 + ☐ = 9) to represent the quantities.

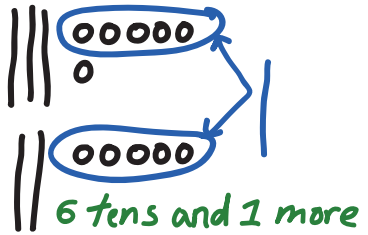
Abel has 9 balls. Susan has 3 balls. How many more balls does Abel have than Susan?



3

Students will be asked to explain their answers.

Here is an example of a second grader's explanation of how to use place value understanding (groups of tens and ones) to solve an addition problem.

There are 36 birds in the park. Suddenly, 25 more birds arrive. How many birds are there now?

Student says: "I used a math drawing and made a pile of 36 and a pile of 25. Altogether, I had 5 tens and 11 ones. 11 ones is the same as one ten and one left over. So, I really had 6 tens and 1 one. That makes 61."