2nd Grade — Parent Guide for Understanding the Math Common Core

Sacramento City Unified School District

	Operations and Algebraic Thinking	Number and Operations in Base 10	Measurement and Data	Geometry
Students will be able to:	• Understand addition as groups of objects being "put together", "added to", "joining to", "increased by", etc. • Understand subtraction as groups of objects being "taken from" or "taken apart", "split from", "separate from", "decreased by", "difference between", etc. • Use objects, numbers, and drawings to show addition and subtraction problems. • Distinguish patterns of even and odd numbers. • Fluently add and subtract within 20 using mental strategies.	• Understand the place value of ones, tens, hundreds and thousands. • Count, read, write and compare numbers within 1000. • Add and subtract with strategies ranging from concrete models to place value. • Create logical arguments to explain why methods are both accurate and effective. • Add and subtract within 1000, and fluently within 100.	• Measure lengths of objects using appropriate tools. • Check to see that a result is reasonable. • Solve word problems that use addition and subtraction involving length. • Display measurement data in a line plot, picture or bar graph. • Solve word problems involving money. • Tell time on any clock within 5 minutes of accuracy.	• Recognize and draw specific shapes based on the number of sides or angles. • Divide rectangles into rows and columns and count to find the total number of squares. • Break up circles and rectangles into equal parts representing halves, thirds and fourths.
Schools will support by providing opportunities to:	• Model and reason with manipulatives (blocks, shapes, linking cubes, place value mats, etc.), to represent numbers as groups of objects when adding and subtracting. • Represent and solve addition and subtraction word problems. • Use numbers, objects or drawings to explain why a number is odd or even.	• Use manipulatives to gain an understanding that ten groups of 10 forms a new place value unit called 100 and ten groups of 100 forms a new place value called 1,000. • Read and write numbers up to 1,000. • Practice counting by twos, fives and tens, starting from any number. • Add and subtract within 1,000 using a variety of strategies.	• Measure length of items in the classroom. • Compare and order classroom items based on length. • Use addition and subtraction to calculate and compare lengths in word problems. • Use drawings and equations to represent word problems. • Represent whole numbers as lengths on a number line. • Collect data and represent it on picture and bar graphs. • Find a given amount of money using different combinations of coins.	• Use vocabulary such as triangle, quadrilateral, pentagon, prism, and cone. • Use manipulatives or drawings to sort, classify and build figures in a variety of ways. • Use fractional vocabulary like "half of" or "fourths" when breaking up circles or rectangles.
Parents can support by providing opportunities to:	• Play board games with dice or card games involving addition and subtraction. • Ask questions during games like, "How many more do you need to win?, If you've gone 23 spaces and have 17 to go, how many total does it take to win?" • Choose a number. Ask your child to explain why the number is odd or even by drawing or pairing objects.	• Have your child go on a scavenger hunt for books and shoes in the house. How many groups of 10 can your child make? How many are left over? • Have your child read aloud numbers to 1,000.	• Use a ruler to measure common household objects in whole number units. • Ask your student what time it is. • Have your student count the money in your wallet.	• Create artwork together with shapes your child has learned about, such as triangles, pentagons, hexagons and cubes. • Allow your child to help you cut pizza or brownies into halves, thirds and fourths.

Second grade students:

- Extend understanding of place value to read, write, and compare numbers up to 1000.

- Use understanding of number operations and relationships to solve and model addition and subtraction word problems within 100.

  Use tools to measure objects in standards units such as feet and meters, and display the data in charts.

- Extend their understanding of geometric figures to draw specific shapes.

- Prepare for understanding fractions by drawing and dividing circles and rectangles into 2, 3, and 4 equal shares.

Resources:

Sacramento City Unified School District
http://www.scusd.edu/commoncoredept
✓ Links to documents for California (CCS) Common Core Standards, including videos for the Standards for Mathematical Practice

Parent-Teacher Association
http://www.pta.org/446.htm
✓ Parent Guides including key items that children should be learning in mathematics in each grade.

California Department of Education
http://www.cde.ca.gov/re/cc/index.asp
✓ Informational flyers provide overviews and highlights of the Math CCS
✓ Handouts for parents on transitioning to CCS
✓ Link to *Council of Great City Schools Parent Roadmaps*
✓ Links to *Smarter Balanced Assessments*

How Parents Can Support:

- Have your child skip count by 2's, 5's, or 10's.

- Play board games that include counting, adding and subtracting such as cards, dominoes, Monopoly, Life or other board games.

- Identify two and three-dimensional geometric shapes in your home environment.

- Ask your child to cut brownies, sheet cakes, pies or pizza into evenly divided portions.

- Read math-related stories together.

- Measure, record and compare their height on an on-going basis.

- Encourage your child to be persistent if a problem seems difficult.

- Share how you use math in your daily life.

- When your child gets stuck on homework, some questions to ask are:

  1) Can you tell me what you know now?
  2) What do you need to find out?
  3) Can you make a drawing or picture to get started?
  4) Can you show me what you did that didn't work?

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How Things Have Changed:

Expectations of students have changed a great deal with the adoption of the Common Core State Standards in Mathematics. While getting the right answer is still a great achievement, students are now required to think mathematically, communicate their thinking, and justify their reasoning while continuing to develop a greater level of understanding of how math works.

Previous California Standards Assessment:
Which digit is in the tens place in the number 234?

Answer: 3

Common Core Standards Assessment:
Find at least three different ways to make 124 using hundreds, tens, and ones. Show your thinking with a picture, equation, words, and/or chart.

Possible Answers:

1 hundred, 1 ten, and 14 ones equals 124

9 tens and 34 ones = 90 + 34 = 124

100   +   20   + 4 = 124

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