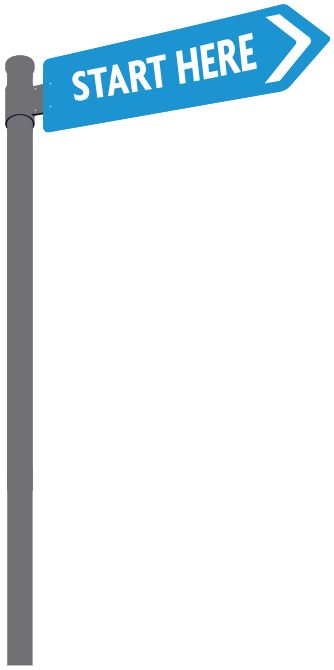
NYC Department of Education
Carmen Fariña, Chancellor

Council of the Great City Schools

parent ROADMAP

SUPPORTING YOUR CHILD IN GRADE TWO

MATHEMATICS



America's schools are working to provide higher quality instruction than ever before.

The way we taught students in the past simply does not prepare them for the higher demands of college and careers today and in the future. Your school and schools throughout the country are working to improve teaching and learning to ensure that all children will graduate high school with the skills they need to be successful.

In mathematics, this means three major changes. Teachers will concentrate on teaching a more focused set of major math concepts and skills. This will allow students time to master important ideas and skills in a more organized way throughout the year and from one grade to the next. It will also call for teachers to use rich and challenging math content and to engage students in solving real-world problems in order to inspire greater interest in mathematics.

What your child will be learning in grade two mathematics

In grade two, students will extend their understanding of place value to the hundreds place. They will use this place value understanding to solve word problems, including those involving length and other units of measure. Students will continue to work on their addition and subtraction skills, quickly and accurately adding and subtracting numbers up through 20 and also working with numbers up through 100. They will also build a foundation for understanding fractions by working with shapes and geometry. Activities in these areas will include:

- Quickly and accurately adding numbers together that total up to 20 or less or subtracting from numbers up through 20
- Solving one- or two-step word problems by adding or subtracting numbers up through 100
- Understanding what the different digits mean in a three-digit number
- Adding and subtracting three digit numbers
- Measuring lengths of objects in standard units such as inches and centimeters
- Solving addition and subtraction word problems involving length
- Solving problems involving money
- Breaking up a rectangle into same-size squares
- Dividing circles and rectangles into halves, thirds, or fourths
- Solving addition, subtraction, and comparison word problems using information presented in a bar graph
- Writing equations to represent addition of equal numbers

An equation is a mathematical statement that uses numbers and symbols, such as 3 + 3 = 6.

Partnering with your child's teacher

Don't be afraid to reach out to your child's teacher—you are an important part of your child's education. Ask to see a sample of your child's work or bring a sample with you. Ask the teacher questions like:

- Is my child at the level where he/she should be at this point of the school year?
- Where is my child excelling?
- What do you think is giving my child the most trouble? How can I help my child improve in this area?
- What can I do to help my child with upcoming work?

Here are just a few examples of the skills and strategies students will develop as they solve word problems in grade two.

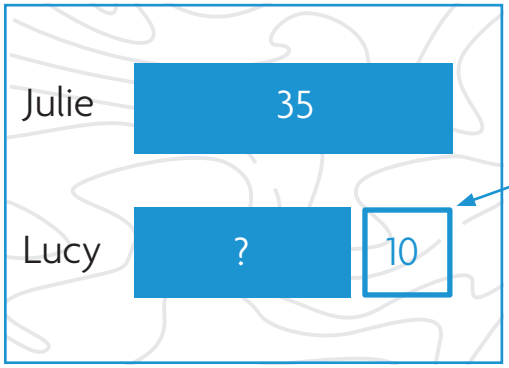
Grade One Mathematics	Grade Two Mathematics	Grade Three Mathematics
Solve word problems by adding or subtracting numbers up through 20	Solve one- and two-step word problems by adding or subtracting numbers up through 100	Solve two-step word problems by adding, subtracting, multiplying, or dividing numbers up through 100

Students in grade two will use diagrams such as this one to think through and solve one- and two-step word problems.

Julie has 35 books. Julie has 10 more books than Lucy. How many books does Lucy have? How many books do they have together?

Step 1: If Lucy has 10 less books than Julie, students first need to figure out what 10 less than 35 is.

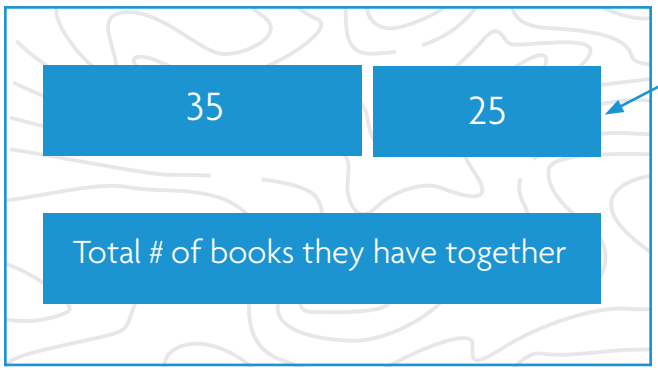
35 books – 10 books = 25 books



25 + 10 = 35
35 - 10 = **25**

Step 2: Students then have to add the number of books Julie has to the number of books Lucy has.

35 books + 25 books = 60 books



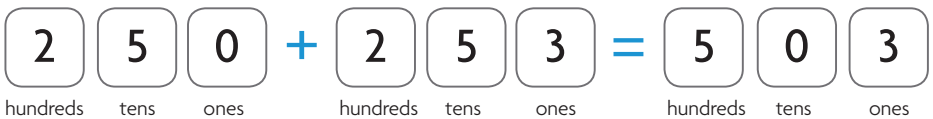
35 + 25 = **60**

Here are just a few examples of how students will develop and use their understanding of place value in grade two.

Grade One Mathematics	Grade Two Mathematics	Grade Three Mathematics
• Understand that 10 can be thought of as a bundle of ten ones—called a "ten" • Understand that the two digits of a two-digit number represent amounts of tens and ones (place value) • Add and subtract numbers through 100 using what students have learned about place value	• Understand that 100 can be thought of as a bundle of ten tens—called a "hundred" • Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones (place value) • Add and subtract numbers through 1000 using what students have learned about place value	• Use place value understanding to round whole numbers to the nearest 10 or 100 • Quickly and accurately add and subtract numbers through 1000 • Use place value understanding to multiply and divide numbers up through 100 • Multiply one-digit whole numbers by multiples of 10 between 10 and 90. For example, 9×80 or 5×60

Students learn that 250 = 2 hundreds and 5 tens, 25 tens, or 250 ones.

Students apply their understanding that 5 tens + 5 tens = 10 tens, or 1 hundred, that can then be added to the hundreds place.



Helping your child learn outside of school

1. Play math games with your child. For example, *"I'm thinking of a number. It has 5 tens, 3 hundreds, and 4 ones. What is the number? 354."* Or, using a deck of cards, deal two cards and ask your child to add the two numbers. You can also identify a target number and ask your child to either add or subtract to obtain that target number (use a target of 20 or less).
2. Have your child explain the relationship between different numbers without counting. For example, 147 is 47 more than 100 and three less than 150.
3. Encourage your child to stick with it whenever a problem seems difficult. This will help your child see that **everyone** can learn math.
4. Praise your child when he or she makes an effort and share in the excitement when he or she solves a problem or understands something for the first time.

Additional Resources

For more information on the Common Core State Standards for mathematics, go to http://www.corestandards.org/about-the-standards/key-points-in-mathematics or http://www.commoncoreworks.org.

For more information on the standards in mathematics related to place value (Number and Operations in Base Ten), go to http://commoncoretools.me/category/progressions/.

For more information on helping your child learn mathematics (with activities from pre-school to grade five), go to http://www2.ed.gov/parents/academic/help/math/index.html.