

"I Can" Help My Student

- I can determine that a digit represents ten times what it would be in the place to its right and one-tenth to its left. (5.NBT.1)
- I can explain the powers of ten. I can explain the pattern in placement of a decimal point using a power of ten. (5.NBT.2)
- I can read, write, and compare decimals to thousandths. (5.NBT.3)
- I can use place value understanding to round decimals to any place. (5.NBT.4)
- I can explain how to add, subtract, multiply, and divide decimals to hundredths, using various methods. (5.NBT.7)

Words to Know

base ten system: a number system based on powers of ten; also known as the decimal system.

decimal: a number that can be written in expanded form using powers of ten or decimal fractions.

decimal point: the point that separates the whole number part and decimal part of a number.

equal to (=): having the same value.

expanded notation: a way to write numbers that shows the place value of each digit.

greater than (>): used to compare two numbers when the first number is **larger** than the second number.

less than (<): used to compare two numbers when the first number is **smaller** than the second number.

place value: the value of a digit in any number., e.g. the place of the 9 in the following figure is hundredths. The value of the 9 is 9 hundredths, $9/100$, or 0.09.

Estimate: a number close to an exact amount, an estimate tells about how much.

Rounding: strategy to find about how much or how many by expressing a number closest to ten, hundred, thousand, or tenth, hundredth, thousandth, etc.

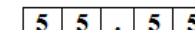
operation notations: symbols to use for adding, subtracting, multiplying, and dividing

Important Understandings and Concepts

What should my student already know before I begin...

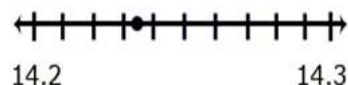
- Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- Fluently add and subtract within 1000, using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Use decimal notation for fractions with denominators 10 or 100.

Learning at a Glance

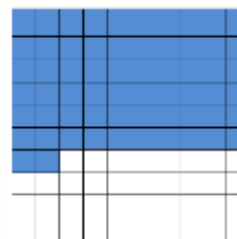


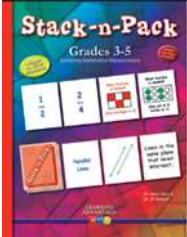
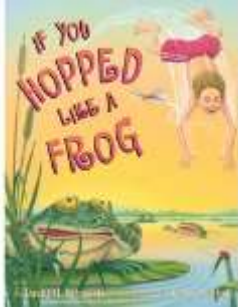
The 5 that the arrow points to is $1/10$ of the 5 to the left and 10 times the 5 to the right. The 5 in the ones place is $1/10$ of 50 and 10 times five tenths.

Students recognize that the possible answer must be in tenths thus, it is either 14.2 or 14.3. They then identify that 14.235 is closer to 14.2 (14.20) than to 14.3 (14.30).



Students should use benchmark numbers to support this work. Benchmarks are convenient numbers for comparing and rounding numbers. 0., 0.5, 1, 1.5 are examples of benchmark numbers. Which benchmark number is the best estimate of the shaded amount in the model below?



How Can You Help Your Student?	Sample Problems and Other Resources
<p style="text-align: center;">Interactive Learning Lessons</p> <p>Your student can watch the videos alone or with you. Have your student take notes while watching. Allow them to watch as many times as needed.</p> <p>Learn Zillion – Reading and Writing Decimals to the Thousandths in Numeric, Word, and Expanded Form</p> <p>Learn Zillion – Compare two decimals to thousandths using <, =, and ></p> <p>Learn Zillion – Rounding decimals to any place using number lines</p> <p>Learn Zillion – Adding and Subtracting Decimals to Hundredths</p> <p style="text-align: center;">Interactive Learning Games</p> <p>Sheppard Software-Decimals games to teach and review decimals</p> <p>Math Playground Common Core practice the language of decimals</p> <p>Base Ten Decimal Bag-Addition</p> <p>Decimal Jeopardy Game all decimal operations</p> <p>Playing games is a wonderful way to practice skills at home in a fun environment. <i>Stack-n-Pack</i> books contain several math games covering math concepts from Kindergarten through High School. <i>Stack-n-Pack</i> card games may be checked out from your school (contact your school’s Parent Liaison) or purchased online: Stack-n-Pack Mathematics Card Games for K-HS</p> <p>Game: Equivalent Fractions</p> 	<p>Sample Problem 1 (NBT.3)</p> <p>a) Write 562.376 in expanded form.</p> <p>Possible Solution: $5(100) + 6(10) + 2(1) + 3(1/10) + 7(1/100) + 6(1/1000)$</p> <p>Sample Problem 2 (NBT.3)</p> <p>b) Given 1.02, 1.2 and 1.002, place the numbers in order from least to greatest.</p> <p>Possible Solution: 1.002, 1.02, 1.2</p> <p>Sample Problem 3 (NBT.3)</p> <p>c) Find four numbers that are between 0.11 and 0.12 and put all six numbers in order from least to greatest.</p> <p>Possible Solution(s): .111, .112, .113, .1134, .1156, .114, .116, .1163, etc.</p> <p style="text-align: center;">Recommended Children’s Literature</p> <p>The use of children’s literature is equally important as problems and deserves some attention. Use these books to integrate and enhance both language literacy and mathematical literacy for an interdisciplinary connection during story time. <i>These books can be checked out at your local Atlanta-Fulton Public Library System www.afplweb.com</i></p>  <p>If You Hopped Like a Frog by David Schwartz (https://www.youtube.com/watch?v=Wlb7pvh3MII)</p>