## Number and Operations in Base Ten

## Standard 5.NBT.A. 1 (Major Work of the Grade)

Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1 / 10$ of what it represents in the place to its left.

## Evidence of Learning Statements

| Students with a level 1 <br> understanding of this standard <br> will most likely be able to: | Students with a level 2 <br> understanding of this standard <br> will most likely be able to: | Students with a level 3 <br> understanding of this standard <br> will most likely be able to: | Students with a level 4 <br> understanding of this standard <br> will most likely be able to: |
| :--- | :--- | :--- | :--- |
| Identify that in a multi-digit whole <br> number, a digit in one place <br> represents ten times what it <br> represents in the place to its right. | Identify that in a multi-digit number, <br> a digit in one place represents ten <br> times what it represents in the <br> place to its right. | Identify that in a multi-digit number, <br> a digit in one place represents ten <br> times what it represents in the <br> place to its right and $1 / 10$ of what it <br> represents in the place to its left. | Generate a multi-digit number that <br> has a specified digit 10 times <br> greater than that same digit in a <br> provided multi-digit number and <br> explain the reasoning behind the <br> generated number. |
| Identify the value of each digit <br> (including tenths, hundredths, and <br> thousandths) in a multi-digit <br> number. | Write multiplication equations to <br> represent/compare the <br> relationships between place values. | Write multiplication and division <br> equations to represent/compare <br> relationships between the values of <br> the same digit when it is located in <br> different place values. | Generate a multi-digit number that <br> has a specified digit $1 / 10$ the value <br> of the same digit in a provided <br> multi-digit number and explain the <br> reasoning behind the generated <br> number. |

## Instructional Focus Statements

## Level 3:

In grade 4, students learned that a digit in one place represents 10 times what it represents in the place to its right. The instructional focus for this standard should be discovery learning that a digit in one place represents $1 / 10$ of what it represents in the place to its left. This should be done by using manipulatives and pictorial representations where students can see that it takes ten groups of one place to make the place to the left or has to be divided into ten groups (a tenth) to make the place to the right. It is important for students to use their understanding of multiplication and division while Revised July 31, 2019

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developing and solidifying this understanding. Instruction should not focus on tricks of adding/removing zeroes as the digit moves place values; instruction should focus on the increase/decrease being multiplicatively related. This standard is a cornerstone standard for students as they develop their conceptual understanding of the base ten number system. Instruction on this standard should come after students understand the digits in a number represent the number of groups of a particular place value (standard 5.NBT.A.3). For example, students should recognize that in 33.33 , the first 3 after the decimal represents 3 groups of tenths ( $3 \times 0.1$ ) or 3 tenths and the second 3 after the decimal represents three groups of hundredths ( $3 \times 0.01$ ) or three hundredths. As they explore this, they realize that it takes ten hundredths to make a tenth and that a tenth must be cut into ten pieces to make a hundredth. This is the foundation for understanding that place values are multiplicatively related to ten.

## Level 4:

At this level, the focus of instruction should be for students to move beyond recognizing when a digit is ten times the value of a digit to its right or $1 / 10$ the value of a digit to its left to generating numbers such that this occurs. Additionally, students should be able to explain why this occurs using appropriate mathematical vocabulary.

## Standard 5.NBT.A. 2 (Major Work of the Grade)

Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 . Use whole-number exponents to denote powers of 10 .

## Evidence of Learning Statements

| Students with a level 1 understanding of this standard will most likely be able to: | Students with a level 2 understanding of this standard will most likely be able to: | Students with a level 3 understanding of this standard will most likely be able to: | Students with a level 4 understanding of this standard will most likely be able to: |
| :---: | :---: | :---: | :---: |
| Multiply whole numbers by 10,100 , 1000, etc. <br> Explain that an exponent denotes how many times the base number 10 is used as a factor. For example, $10^{3}$ means $10 \times 10 \times 10$. | Write a number multiplied by a power of 10 in multiple ways. For example, $5,000=5 \times 10 \times 10 \times 10=5$ $x 1000=5 \times 10^{3}$. <br> Explain patterns when a number is multiplied by a power of ten. | Explain patterns in the number of zeros of the product when multiplying a number by powers of 10. <br> Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. <br> Multiply and divide decimals by powers of 10 given in standard or exponential form. <br> Use exponential notation to represent powers of 10, and identify the value of powers of 10 given in exponential form. | Write very large numbers using powers of 10 . <br> Write multi-digit whole numbers in expanded form using exponents. <br> Conduct an error analysis of an exponent being used incorrectly and explain the error. |

## Instructional Focus Statements

## Level 3:

The use of whole number exponents to denote powers of 10 is introduced in grade 5 . Students will gain an understanding of why multiplying or dividing by a power of 10 shifts the digits of a whole number or decimal the appropriate number of places to the left or right. Patterns in the number of zeros in products of a whole number and a power of 10 , as well as the location of the decimal point in products of decimals and powers of 10 can be explained in

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terms of place value. Students may connect their understanding of multiplication and exponentiation by relating to their understanding of, and computations with decimals in terms of multiples rather than powers.

This standard includes multiplying by powers of 10 , including $10^{2}$ which is $10 \times 10=100$, and $10^{3}$ which is $10 \times 10 \times 10=1,000$. Students should recognize that the power of ten denotes the number of times 10 is used as a factor. Students should have experiences working with the pattern of the number of zeros in the product when multiplying whole numbers by powers of 10 and compare that to what happens when a decimal is multiplied by a power of 10 as shown in the example. Example: $2.5 \times 10^{3}=2.5 \times(10 \times 10 \times 10)=2.5 \times 1,000=2,500$. Students should reason that the exponent above the 10 indicates that you are multiplying or making the number 10 times greater that many times when you multiply by a power of 10 . The decimal point does not move, the numbers are shifting around the decimal point.

A common misconception can occur as students talk about "adding zeros" to the number when multiplying. When multiplying whole numbers, this invented strategy appears to work. However, when multiplying decimals, this misconception will cause errors in the computation. By focusing on the number being multiplied getting that many times larger, the conceptual understanding is at the heart of student thinking. For example, in $25 \times 10=250$ (a student might say 25 and add/attach/append a zero) but in $2.5 \times 10=25$ this same rule does not apply (students following the rule would write $2.5 \times 10=$ 2.50). Instead, students should consider that 250 is ten times larger than 25 and 25 is ten times larger than 2.5

## Level 4:

Provide opportunities for students to write whole numbers in expanded form using exponents. Students should explain why this works by connecting it to their previous experiences with whole numbers in expanded form. Provide opportunities for students to analyze errors and misconceptions and explain why this error probably occurred and how it should be corrected.

## Standard 5.NBT.A. 3 (Major Work of the Grade)

Read and write decimals to thousandths using standard form, word form, and expanded form (e.g., the expanded form of 347.392 is written as $3 \times 100+4$ $\times 10+7 \times 1+3 \times(1 / 10)+9 \times(1 / 100)+2 \times(1 / 1000))$. Compare two decimals to thousandths based on meanings of the digits in each place and use the symbols $>,=$, and $<$ to show the relationship.

## Evidence of Learning Statements

| Students with a level 1 understanding of this standard will most likely be able to: | Students with a level 2 understanding of this standard will most likely be able to: | Students with a level 3 understanding of this standard will most likely be able to: | Students with a level 4 understanding of this standard will most likely be able to: |
| :---: | :---: | :---: | :---: |
| Identify the value of a digit in a multi-digit number with models. <br> Compare two decimals to the hundredths place (when the same number of digits are in each number), using the symbols $>,<$, or $=$. | Read and write numbers to the thousandths place in at least one form (standard, word, or expanded). <br> Compare two decimals to the hundredths place using the symbol $>,<$, or $=$ with numbers that have one decimal place to numbers with two decimal places using models and/or fraction equivalence to explain their comparison. | Read and write decimals to thousandths using standard form, word form, and expanded form. <br> Compare two decimals to thousandths based on meanings of the digits in each place, using the symbols $>,<$, or $=$. | Compare more than two decimals by ordering a series of numbers from least to greatest or greatest to least. <br> Generate two decimals and compare using the symbols $>,<$, or =, then justify using models and/or fraction equivalence to explain their comparison. |

## Instructional Focus Statements

## Level 3:

Students should build on their work from grade 4, where they worked with both decimals (through hundredths) and fractions interchangeably. This standard references expanded form of decimals with fractions included. In previous grades, student learned that they can create whole numbers in a variety of ways. For example, 234 is 2 hundreds, 3 tens, and 4 ones or 1 hundred, 13 tens, and 4 ones, etc. This same understanding will be extended to decimal numbers as they first work to make sense of the digits as representing groups of the value of the digit. Students should explain 0.523 is 5 groups of tenths ( $5 \times 1 / 10$ ) +2 groups of hundredths $(2 \times 1 / 100)$ and 3 groups of thousandths $(3 \times 1 / 1000)$ but could also be 4 groups of tenths $(4 \times 1 / 10)+12$ groups of hundredths ( $12 \times 1 / 100$ ) and 3 groups of thousandths ( $3 \times 1 / 1000$ ). Additionally, 0.458 can be written as 4 tenths +5 hundredths +8 thousandths. This understanding is important for students when learning to read decimal numbers correctly. Experiences where they create that number with only thousandths grids helps them to see that 4 tenths, 5 hundredths and 8 thousandths is equivalent to 458 thousandths and why it is read that way. Revised July 31, 2019

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Students build on the understanding they developed in grade 4 to now read, write, and compare decimals to thousandths. In previous grades, students make comparisons based on the values of the digits in each number. This understanding is extended to making comparisons based on the value of the decimal places. The decimal place value names are new learning. In grade 4, students did not learn about the tenths or hundredths place. Now, they connect to prior experiences with using decimal notation for fractions and addition of fractions with denominators of 10 and 100 . In grade 4 , students represented 0.72 as seventy-two hundredths or $72 / 100$ because $7 / 10+2 / 100=70 / 100+2 / 100=72 / 100$. Students will also need opportunities to work with concrete and pictorial representations of equivalent decimals such as $0.5=0.50=0.500$ or $0.34=0.340$. Instruction should be based on conceptual understanding and not adding or removing zeroes. Students need concrete models and number lines to extend this understanding of decimals to the thousandths place. Models may include base ten blocks, decimal grids, place value charts, drawings, manipulatives, etc. Students should read decimals using fractional language and write decimals in fractional form, as well as in expanded form. This helps support student understanding of equivalence (i.e., $0.1=0.10=1 / 10=10 / 100$ ). The conceptual understanding from this standard is a building block for standard 5.NBT.A. 1 as students connect what each place value represents to the fact that as digits move places, they become ten times greater or become a tenth of the value of the previous place.

## Level 4:

Solve real-world problems where a data set is presented and have students order and compare the numbers in order to analyze the data. Students should be able to generate decimal numbers to compare using the symbols $>,<$, or $=$.

Standard 5.NBT.A. 4 (Major Work of the Grade)
Round decimals to the nearest hundredth, tenth, or whole number using understanding of place value.

## Evidence of Learning Statements

| Students with a level 1 <br> understanding of this standard <br> will most likely be able to: | Students with a level 2 <br> understanding of this standard <br> will most likely be able to: |
| :--- | :--- |
| Use place value understanding to <br> round multi-digit whole numbers to <br> the nearest whole number. | Use place value understanding to <br> round multi-digit numbers to the <br> nearest whole number. |
| Demonstrate the two whole <br> numbers a number would fall <br> between using a number line. | Round numbers to the nearest <br> tenth and/or hundredth using a <br> number line. |

Students with a level 3 understanding of this standard will most likely be able to:

Use place value understanding to round multi-digit numbers to the nearest hundredth, tenth, or whole number.

## Students with a level 4

 understanding of this standard will most likely be able to:Create a situation where it would make sense to round a number to the nearest tenth instead of whole or vice versa.

## Instructional Focus Statements

## Level 3:

In grade 5, it is important that students build off of the conceptual understanding of rounding developed in grades 3 and 4 when students rounded whole numbers. Rounding to the place farthest to the left is typically the easiest for students and is often the most applicable for use in estimation. Rounding to a place in the middle of the number may be more challenging for students, and it is important to continue emphasizing that conceptually, rounding is deciding which number the number to be rounded is closest to.

To aid in teaching this concept, counting routines can be beneficial in determining between what two numbers the number to be rounded falls making it easier to find the one it's closer to on a number line. For example, start at 4,570 and count by tens or start at 3.4 and count by tenths or 3.42 and count by hundredths. Once students can determine which two tenths or hundredths, etc. a number is between, it is important that students also make sense of the midpoint.

For students to solidify their conceptual understanding of rounding, students are able to visually see this best when utilizing a number line. It is imperative that students understand conceptually as opposed to being presented a set of static rules to be applied when rounding.

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## Level 4:

Students should be explaining the connection between place value and rounding. Additionally, they should be able to explain using appropriate mathematical vocabulary how to round a single number to multiple places and articulate when each might be more useful. For example, in a situation such as jumping 1.72 meters, I can round the number to the nearest whole ( 2 meters) or the nearest tenth ( 1.7 meters), so students should share contexts for when each of these would be helpful and why one might be more helpful (e.g., I need about 2 meters above my head so I don't hit my head but in a high jump competition 1.7 meters is more accurate for my score).

## Standard 5.NBT.B. 5 (Major Work of the Grade)

Fluently multiply multi-digit whole numbers (up to three-digit by four-digit factors) using appropriate strategies and algorithms.

## Evidence of Learning Statements

| Students with a level 1 <br> understanding of this standard <br> will most likely be able to: | Students with a level 2 <br> understanding of this standard <br> will most likely be able to: | Students with a level 3 <br> understanding of this standard <br> will most likely be able to: | Students with a level 4 <br> understanding of this standard <br> will most likely be able to: |
| :--- | :--- | :--- | :--- |
| Accurately multiply whole numbers <br> (up to one-digit by four-digit factors) <br> using a model and an equation. | Accurately multiply whole numbers <br> (up to two-digit by four-digit factors) <br> using at least one appropriate <br> strategy or algorithm. | Accurately, fluently, and efficiently <br> multiply whole numbers (up to <br> three-digit by four-digit factors) <br> using at least one appropriate <br> strategy or algorithm. | Explain the connections that exist <br> between place value and standard <br> multiplication algorithms. |
| Accurately and efficiently multiply <br> whole numbers (up to two-digit by <br> two-digit factors) using a model and <br> an equation. | Analyze sample work and justify <br> why an algorithm or strategy is <br> correct or incorrect. |  |  |

## Instructional Focus Statements

## Level 3:

Fluency involves a mixture of just knowing some answers, finding some answers by using patterns, finding some answers by employing strategies, and finding some answers using algorithms and knowing which is the most efficient and why. In previous grades, students have been exposed to multiple strategies as they developed their conceptual understanding of multiplication. These strategies should be generalized when multiplying multi-digit whole numbers. In grade 4, students developed a conceptual understanding of multiplication using concrete representations such as an area model and array diagrams. In grade 5, students should understand the relationship that exists between concrete representations and abstract representations such as standardized algorithms.

Instruction should focus on making sense of the operation by connecting what they know to new learning. For example, students should note that 3,247 x 5 can be represented as 3,247 groups of 5 or 5 groups of 3,247 and use this to represent an equal group model or an area model. It is important that students work with partial products and also that they develop a deep understanding of how the distributive property can be visualized in an area model. This understanding is imperative as students develop an understanding of using standardized algorithms as a strategy for multiplication. Utilizing the distributive property allows numbers to be decomposed into base ten units, products of the units to be computed, and then those products to be combined. This simplifies multiplication for students so that they are multiplying a single digit by a multiple of $10,100,1000$, which is a concept that is introduced in grade 3. This method also extends and is particularly helpful when generalizing multiplication algorithms to working with three and four-digit
factors. Instruction should focus on place value language when using the algorithms. For example, when solving $247 \times 348$, students would say 8 groups of 7,8 groups of 40 and 8 groups of 200 as they work through the problem. Students must connect area models and array diagrams to the algorithms as they solidify their conceptual understanding of multiplication strategies. Providing worked out problems for students to examine for accuracy and for connections between strategies is an important instructional strategy. Students should have opportunities to connect their previous work with the meanings of multiplication to problem solving situations and use estimations to ask themselves if their answer is reasonable.

## Level 4:

Students should be challenged to make connections not only within the algorithms for multiplication, but also to make connections between other strategies. Students should be able to verbalize why the algorithms and strategies work. At this level, students should be able to look at a problem containing an error, find the error, fix the error, and explain the mathematical mistake that has been made.

## Standard 5.NBT.B. 6 (Major Work of the Grade)

Find whole-number quotients and remainders of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

## Evidence of Learning Statements

| Students with a level 1 understanding of this standard will most likely be able to: | Students with a level 2 understanding of this standard will most likely be able to: | Students with a level 3 understanding of this standard will most likely be able to: | Students with a level 4 understanding of this standard will most likely be able to: |
| :---: | :---: | :---: | :---: |
| Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. <br> Identify solutions to mathematical problems involving division when given rectangular arrays or area models. | Find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors when the divisor is a multiple of 10 . <br> Illustrate or explain solutions to mathematical problems involving whole number quotients and remainders with up to four-digit dividends and one-digit divisors by using equations, rectangular arrays, and/or area models. | Find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors. <br> Illustrate or explain solutions to mathematical problems involving division with whole-number quotients and remainders with up to four-digit dividends and two-digit divisors by using equations, rectangular arrays, and/or area models. <br> Solve division problems using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. These could include, but are not limited to, partial quotients, and area models. | Explain the connections that exist between place value and division algorithms. <br> Analyze sample work and justify why an algorithm or strategy is correct or incorrect. |

## Instructional Focus Statements

## Level 3:

The primary instructional focus for division at grade 5 should be solidifying a student's conceptual understanding of what it means to divide in both a partitive and quotitive context (see standard 3.OA.A.2) while extending the set of strategies developed in grade 4 with standard $4 . N B T . B .6$. Students extend their understanding of what it means to divide with a single-digit number to discover how a two-digit divisor impacts the strategies they have previously utilized. Instruction should also focus on invented strategies paying particularly close attention to place value strategies as they will be crucial when students work with the standard algorithm in grade 6 . Students are not expected to master one particular strategy over another but they should use the strategy that makes the most sense to them.

With invented strategies, it is crucial that students refer to the place value of numbers as opposed to focusing of on the digits for both the dividend and divisor. For example, in the number 1,245 students should view this as $1000+200+40+5$ as opposed to 4 discrete digits. If this connection is not made, students will struggle to develop a conceptual understanding of division.

While the focus of instruction should be primarily on strategies, it is important to note that as students begin dividing with two-digit divisor they may need to experience a concrete learning stage using manipulatives. Base ten blocks are a particularly helpful tool as students visualize the operation of division. Once students understand and can explain division with concrete manipulatives, they are ready to progress extending to further developing the strategies worked with in grade 4. It is important that the student's level of understanding drive how they interact with division expressions. Accepting direct modeling as a necessary developmental phase allows students who are not ready for more efficient methods a way to explore the same problems as classmates who have progressed beyond this stage.

Estimation becomes more relevant when extending to two-digit divisors. Even if students round appropriately, the resulting estimate may need to be adjusted. Strategies such as partial quotients and the area model allow division to continue when the original estimate must be adjusted.

As students continue working with remainders, they should focus on identifying the greatest number less than the given dividend that divisor will evenly divide into. This can be a cognitively complex task for students in grade 5 as it is drawing on both their understanding of multiplication and division simultaneously. Instruction should be scaffolded in a way so that students work first with smaller more familiar numbers in order to develop their conceptual understanding prior to moving to larger less familiar numbers. The remainder should be reported as a whole number- The context determines the most appropriate way to report the remainder. A variety of contextual situations should be provided in which students must determine if the remainder is the answer, if the remainder is dropped, or if the quotient should be one more because of the remainder should all be included.

## Level 4:

Instruction at this level should focus on students verbalizing the process of division and providing justification for why the strategy being used works. Students should be familiar with and able to use a wide variety of different strategies for division, make connections between the various methods for division, and describe how they are connected. Additionally, students should be able to look at a problem containing an error, find the error, fix the error, Revised July 31, 2019

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and explain the mathematical mistake that has been made. Students should also be able to model and/or describe a model for both quotitive and partitive division for any given problem. Within the model, they should be able to identify the parts of the model that represent the dividend, divisor, and quotient.

## Standard 5.NBT.B. 7 (Major Work of the Grade)

Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations; assess the reasonableness of answers using estimation strategies (Limit division problems so that either the dividend or the divisor is a whole number).

## Evidence of Learning Statements

| Students with a level 1 understanding of this standard will most likely be able to: | Students with a level 2 understanding of this standard will most likely be able to: | Students with a level 3 understanding of this standard will most likely be able to: | Students with a level 4 understanding of this standard will most likely be able to: |
| :---: | :---: | :---: | :---: |
| Recognize place values of numbers after a decimal point. <br> Proficiently use at least one strategy for solving whole number computation with all four operations. | Use concrete models or drawings (such as decimal grids) to add and subtract decimals to hundredths. <br> Use strategies based on place value and properties of operations to add and subtract decimals to hundredths. | Use concrete models or drawings (such as decimal grids) to add, subtract, multiply, and divide decimals to hundredths. <br> Use strategies based on place value and properties of operations to add, subtract, multiply, and divide decimals to hundredths. <br> Explain the connection that exists between pictorial representations and computational strategies when adding, subtracting, multiplying, and dividing decimals to hundredths. <br> Determine if a solution is reasonable using estimation strategies when adding, subtracting, multiplying, and dividing decimals to hundredths. | Solve multi-step problems that involve adding, subtracting, multiplying, and dividing decimals to hundredths. <br> Use estimation strategies to evaluate if a given solution is reasonable to a mathematical and contextual problem and justify using precise mathematical vocabulary. |

## Instructional Focus Statements

## Level 3:

This standard introduces decimal computation. Students have learned computation with whole numbers using all four operations and should now generalize strategies to apply them to decimal computation. Instruction should begin by developing a conceptual understanding of decimal computation by concrete strategies allowing students to understand the part to whole relationship with regard to place value. For example, students can using base-ten blocks or grid paper models to relate those models to written equations. In earlier grades students used composing and decomposing strategies to apply operations to whole numbers. In this standard students should be able to use composing and decomposing strategies to apply operations to decimal numbers. It is important that conceptual understanding is built on place value rather than to simply line up the decimal points and compute. For example $499+59$ could be solved as $500+58$ through compensation in the same way $2.9+3.5$ can be solved as $3+3.4$ through the same compensation strategy. Another example is when students use counting up as a strategy to rewrite $44-22.86=\ldots$ as $22.86+\ldots \quad=44$. Computation models should be limited to results containing thousandths. Models resulting in computations beyond thousandths are outside of the intended scope of grade 5 which focuses on understanding place value using models rather than on using algorithms.

Students should connect previous experiences with the meaning of multiplication and division of whole numbers to multiplication and division of decimals. Students need time to make explicit connections between concrete and pictorial representations to equations involving decimal numbers. When beginning decimal division, instruction be scaffolded to use examples of dividing a decimal by a whole number and progressing to dividing a whole number by tenths and hundredths. Instruction should be limited to having either the dividend or divisor as a decimal but not both. Connections to whole number division will be imperative here. For example, $423 \div 4$ could be interpreted as how many groups of 4 are in 423 in the same way $6 \div .02$ could be interpreted as how many groups of 2 hundredths are in 6 . There is no expectation for the standard algorithm for division until grade 6 .

Attention should be given to the situation types for all operations when using contextual problems. Students should be able to determine if a solution is reasonable using estimation strategies when adding, subtracting, multiplying, and dividing decimals to hundredths. As students make connections between concrete and student-invented representational strategies and apply estimation strategies they should be able to explain their reasoning using precise mathematical vocabulary.

## Level 4:

Instruction at this level should include opportunities for students to solve multi-step real-world problems using any of the four operations with a combination of whole numbers and decimal values limited to hundredths. However, some students may begin to extend their understanding of place value to include calculations beyond thousandths such as the product of hundredths by hundredths is in the ten thousandths. Students should be able to use estimation strategies to evaluate if a given solution is reasonable to a mathematical and contextual problem and justify using precise mathematical vocabulary.
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