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| **Prerequisite Skills** | **Unit Four Standards**  **Grade 2** | **Looking Ahead** |
| I can solve one-step word problems with numbers within 100 using addition and subtraction (Unit 3).  I can solve two-step word problems with numbers within 20 using addition and subtraction (Unit 3). | Operations and Algebraic Thinking 1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions.   * I can identify the action in a one-step problem. * I can solve one-step word problems with numbers **within 100** using addition and subtraction. * I can identify both actions in a two-step problem. * I can solve two-step word problems with numbers **within 100** using addition and subtraction. | Add and subtract within 1000 (Unit 6). |
| Foundational Facts:  +1/+2, +0, +10, Doubles, Making 10, Using 10s, Using Doubles (Unit 1). | Operations and Algebraic Thinking 2: **Fluently** add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.   * I can fluently add within 20 using mental strategies. * I can fluently subtract within 20 using mental strategies.   **\*This standard must only be taught in small group/centers in Unit 3 depending on student need.** | This standard needs to be repeated throughout Grade 2 in small group work and centers. |
| Understand and apply properties of operations and the relationship between addition and subtraction.  Add and subtract within 20.  Use place value understanding and properties of operations to add and subtract. | Number and Operations in Base Ten 5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.   * I can fluently add 2-digit numbers using strategies. * I can fluently subtract 2-digit numbers using strategies. | Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| Number and Operations in Base Ten 6: Add up to four two-digit numbers using strategies based on place value and properties of operations.   * I can add up to four 2-digit numbers using strategies. |
| Number and Operations in Base Ten 9: Explain why addition and subtraction strategies work, using place value and the properties of operations.   * I can explain what strategy I used to solve my problem. |
| I can count money combinations including dollars, quarters, dimes, nickels, and pennies (Unit 3).  I can write money amounts using the symbols $ and ¢  (Unit 3). | Measurement and Data 8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*   * I can count money combinations including dollars, quarters, dimes, nickels, and pennies. * I can write money amounts using the symbols $ and ¢. * I can solve word problems using dollars, quarters, dimes, nickels, and pennies. | \*\*Students will not experience money officially again until work with decimals in 6th Grade. |

\*In standards that are repeated in several units, the I Can Statements represent a progression of skills to scaffold learning.

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| |  |  | | --- | --- | | **Standard** | **Learner Objectives** | | Operations and Algebraic Thinking 1:  Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions. | * I can identify the action in a one-step problem. * I can solve one-step word problems with numbers **within 100** using addition and subtraction. * I can identify both actions in a two-step problem. * I can solve two-step word problems with numbers **within 20** using addition and subtraction. |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | | | | | One-step word problems use one operation. Two-step word problems use two operations which may include the same operation or the opposite operation.  By solving a variety of addition and subtraction word problems, second grade students will determine the unknown in all positions.  **Number values should be within 100 for the one-step problems in Unit Two. Number values should be within 20 for the two-step problems in Unit Two.** | | | | | | | **One Step Word Problem**  One Operation | | **Two-Step Word Problem**  Two Operations, Same | | **Two-Step Word Problem**  Two Operations, Opposite | | | There are 45 stickers on the page. Brittany put some more stickers on the page. There are now 12 stickers on the page. How many stickers did Brittany put on the page?  45 + ? = 12  45 – 12 = ? | | There are 9 blue marbles and 6 red marbles in the bag. Maria put in 8 more marbles. How many marbles are in the bag now?  9 + 6 + 8 = ? | | There are 9 peas on the plate. Carlos ate 5 peas. Mother put 7 more peas on the plate. How many peas are on the plate now?  9 – 5 + 7 = ? | | | **Example Problem Types** | | | | | | | **Add to Result Unknown** | **Take From, Result Unknown** | **Put Together/Take Apart, Total Unknown** | **Compare, Difference Unknown** | **Add to, Change Unknown** | **Take From, Change Unknown** | | Mary has 5 cookies. She buys 10 more cookies at the store. How many cookies does Mary have?  5 + 10 = ? | Mary has 15 cookies. She ate 5 cookies at lunch. How many cookies does she have left?  15 – 5 = ? | Mary has 5 chocolate chip and 10 sugar cookies. How many cookies does Mary have?  5 + 10 = ? | Mary has 15 cookies. Joe has 5 cookies. How many more cookies does Mary have than Joe?  15 - 5= ? 5 + ? = 15 | Mary has 5 cookies. She buys some more cookies at the store. Now she has 15 cookies. How many cookies did Mary buy at the store? 5 + ? = 15 | Mary has 15 cookies. She ate some cookies at lunch. Now she has 10 cookies. How many cookies did Mary eat at lunch?  15 - ? = 10 | | **Put Together, Take Apart Addend Unknown** | **Compare, Bigger Unknown** | **Add to, Start Unknown** | **Take From Start Unknown** | **Put Together, Take Apart, Both Addends Unknown** | **Compare, Smaller Unknown** | | Mary has 5 chocolate chip cookies and some sugar cookies. All together she has 15 cookies. How many sugar cookies does Mary have?  5 + ? = 15 | Mary has 15 cookies. Joe has 5 more cookies than Mary. How many cookies does Joe have?  15 + 5 = ? | Mary has some cookies. She bought 10 cookies at the store. Now she has 15 cookies. How many cookies did she have before she went to the store?  ? + 10 = 15 | Mary had some cookies. At lunch she at 5. Now she has 10 cookies. How many cookies did she have before lunch?  ? – 5 = 10 | Mary has 15 cookies. What are some different ways she can put them on 2 plates?  8 + 7 = 15 , 7 + 8 = 15  10 + 5 = 15, 9 + 6 = 15  15 = 15 + 0, 14 + 1 = 15 | Mary has 15 cookies. She has 5 more cookies than Joe. How many cookies does Joe have?  15 – 5 = ? |  |  |  |  |  | | --- | --- | --- | --- | | **Lessons and Resources for Operations in Algebraic Thinking 1** | | | | | Expressions: Unit 5 – Lesson 10 (page 374) | Expressions: Unit 9 – Lesson 11 (page 676) | Expressions: Unit 5 – Lesson 9 (page 368) | [CGI – Addition and Subtraction Story Bank](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) |  |  |  |  | | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | [1. Make sense of problems and persevere.](http://elementarymath.dmschools.org/1-make-sense-of-problems-and-persevere-in-solving-them1.html) | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [3. Construct viable arguments and critique the reasoning of others.](http://elementarymath.dmschools.org/3-construct-viable-arguments-and-critique-the-reasoning-of-others1.html) | | [4. Model with mathematics.](http://elementarymath.dmschools.org/4-model-with-mathematics1.html) | [5. Use appropriate tools strategically.](http://elementarymath.dmschools.org/5-use-appropriate-tools-strategically2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

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| |  |  | | --- | --- | | **Standard** | **Learner Objectives** | | Operations and Algebraic Thinking 2:  **Fluently** add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. | * I can fluently add within 20 using mental strategies. * I can fluently subtract within 20 using mental strategies. |   **\*This standard must only be taught in small group/centers in Unit 4 depending on student need.**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | | | | | | Second Graders internalize facts and develop fluency by repeatedly using strategies that make sense to them. This standard mentions the word fluently when students are adding and subtracting numbers within 20. Fluency means accuracy (correct answer), efficiency (within 4-5 seconds), and flexibility (using strategies such as making 10 or breaking apart numbers). Research indicates that teachers’ can best support students’ memorization of sums and differences through varied experiences making  10, breaking numbers apart and working on mental strategies, rather than repetitive timed tests. | | | | | | | | **Foundational Facts** | | | | | | | | **+1/+2** | **+0** | **+10** | **Doubles** | **Making Ten** | **Using Tens** | **Using Doubles** | | Deryn took 5 bites of an apple. Then she took 1 more bite. How many bites did she take? | 4 boys were at the math center. No girls were at the math center. How many students were at the math center? | If your cookie had 4 chips, how many chips would your cookie have if you added 10? | His pigs are very muddy. He uses 3 bars of soap to bathe them. How many bars of soap will he use if we double the pigs? | There were 10 apples in the basket. What if you dropped 3? How many apples are left? | Yesterday, Farmer Brown gathered 9 eggs from the hen house. Today, he gathered 4 more. How many eggs did he gather all together? | There were 5 spotted fish and 6 fantail fish. How many fish were there altogether? |  |  |  |  |  | | --- | --- | --- | --- | | **Lessons and Resources for Operations in Algebraic Thinking 2** | | | | | Mastering the Basic Facts in Addition and Subtraction: [Chapter 2: Plus 1 and Plus 2](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%202%20Plus%201%20Plus%202.pdf) | Mastering the Basic Facts in Addition and Subtraction: [Chapter 3: Adding 0](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%203%20Adding%200.pdf) | Mastering the Basic Facts in Addition and Subtraction: [Chapter 4: Adding 10](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%204%20Adding%2010.pdf) | Mastering the Basic Facts in Addition and Subtraction: [Chapter 5: Doubles](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%205%20Doubles.pdf) | | | Mastering the Basic Facts in Addition and Subtraction: [Chapter 6: Making 10](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/Basic%20Fact%20Books%20O%27Connell/Addition%20and%20Subtraction/Chapter%206%20Making%2010.pdf) | Mastering the Basic Facts in Addition and Subtraction: [Chapter 7: Using 10s](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%207%20Using%2010s.pdf) | Mastering the Basic Facts in Addition and Subtraction: [Chapter 8: Using Doubles](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Chapter%208%20Using%20Doubles.pdf) | [CGI – Addition and Subtraction Story Bank](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) | |  |  |  |  | | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [7. Look for and make use of structure.](http://elementarymath.dmschools.org/7-look-for-and-make-use-of-structure2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

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| |  |  | | --- | --- | | **Standard** | **Learner Objectives** | | Number and Operations in Base Ten 5:  **Fluently** add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. | * I can fluently add 2-digit numbers **using strategies.** * I can fluently subtract 2-digit numbers **using strategies.** |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | | | | There are various strategies that Second Grade students understand and use when adding and subtracting within 100.  **The standard algorithm of carrying or borrowing is neither an expectation nor a focus in Second Grade**.  **Adding and subtracting fluently refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently.** Students should have experiences solving problems written both horizontally and vertically. They need to communicate their thinking and be able to justify their strategies both verbally and with paper and pencil. | | | | | | **Possible Strategies** | | | | | | **Place Value Strategy**  67 + 25 =  I broke both 67 and 25 into tens and ones. 6 tens plus 2 tens equals 8 tens. Then I added the ones. 7 ones plus 5 ones equals 12 ones. I then combined my tens and ones. 8 tens plus 12 ones. | **Counting On and Decomposing a Number Line Leading to Ten**  67 + 25 =  I wanted to start with 67 and then break 25 apart. I started with 67 and counted on to my next ten. 67 plus 3 gets me to  70. I then added 2 more to get to 72. I then added my 20 and got to 92. | **Commutative Property**  67 + 25 =  I broke 67 and 25 into tens and ones so I had to add 60+7+20+5. I added 60 and 20 first to get 80.  Then I added 7 to get 87. Then I added 5 more.  My answer is 92. | **Relationship between Addition and Subtraction**  63 – 32 =  I broke apart both 63 and 32 into tens and ones. I know that 2 plus 1 equals 3, so I have  1 left in the ones place. I know that 3 plus 3 equals 6, so I have a 3 in my tens place.  My answer has a 1 in the ones place and 3 in the tens place, so my answer is 31. | **Other Possible Strategies:**   * Incremental adding * Compensation * Adding up * Incremental subtracting * Subtracting by place value * Associative Property * Identity Property of 0 |  |  |  |  |  | | --- | --- | --- | --- | | **Lessons and Resources for Number and Operations in Base Ten 5** | | | | | Expressions: Unit 5 – Lesson 11 (page 382) | Expressions: Unit 9 – Lesson 7 (page 650) | Expressions: Unit 5 – Lesson 18 (page 424) | Expressions: Unit 9 – Lesson 3, Activity 1 & 2 (page 620) | | Expressions: Unit 9 – Lesson 5, Activity 2 (page 635) | Expressions: Unit 9 – Lesson 8 (page 658) | Expressions: Unit 9 - Lesson 12, Activity 2 (page 684) | Expressions: Unit 9 - Lesson 16, Activity 2 (page 705) | | [Equations and Expressions Practice](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Unit%204/Equations%20and%20Expressions%20Practice.pdf) |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [6. Attend to precision](http://elementarymath.dmschools.org/6-attend-to-precision2.html) | [7. Look for and make use of structure.](http://elementarymath.dmschools.org/7-look-for-and-make-use-of-structure2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

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| |  |  | | --- | --- | | **Standard** | **Learner Objectives** | | Number and Operations in Base Ten 6:  Add up to four two-digit numbers using strategies based on place value and properties of operations. | * I can add up to four 2-digit numbers using strategies. |  |  |  |  |  | | --- | --- | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | | | This standard calls for students to add a string of two-digit numbers (up to four numbers) by applying place value strategies and properties of operations.  Students demonstrate addition strategies with up to four two-digit numbers either with or without regrouping. Problems may be written in a story problem format to help develop a stronger understanding of larger numbers and their values. | | | | | **Example:**  **43 + 34 + 57 + 24 = \_\_\_** | | | | | **Student A**  **Associative Property**  I saw the 43 and 57 and added them first, since I know 3 plus 7 equals 10.  When I added them 100 was my answer.  Then I added 34 and had 134. Then I added 24 and had 158. | **Student B**  **Place Value Strategies**  I broke up all of the numbers into tens and ones. First I added the tens.  40 + 30 + 50 + 20 = 140.  Then I added the ones. 3 + 4 + 7 + 4 =  18. Then I combined the tens and ones and had 158 as my answer. | **Student C**  **Place Value + Associative Property**  I broke up all the numbers into tens and ones. First I added up the tens.  40 + 30 + 50 + 20. I changed the order of the numbers to make adding easier. I  know that 30 plus 20 equals 50 and 50 more equals 100. Then I added the 40 and got 140. | **Student D**  Then I added up the ones. 3 + 4 + 7 +  4. I changed the order of the numbers to make adding easier. I know that 3 plus 7 equals 10 and 4 plus 4 equals 8.  10 plus 8 equals 18. I then combined my tens and my ones. 140 plus 18 equals 158. |  |  |  | | --- | --- | | **Lessons and Resources for Number and Operations in Base Ten 6** | | | Expressions: Unit 5 - Lesson 17, Activity 3 (page 420) | Expressions: Unit 5 - Lesson 17, Activity Cards (on level, challenge) (page 421) |  |  |  |  |  | | --- | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [6. Attend to precision.](http://elementarymath.dmschools.org/6-attend-to-precision2.html) | [7. Look for and make use of structure.](http://elementarymath.dmschools.org/7-look-for-and-make-use-of-structure2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

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| |  |  | | --- | --- | | **Standard** | **Learner Objectives** | | Number and Operations in Base Ten 9:  Explain why addition and subtraction strategies work, using place value and the properties of operations. | * I can explain what strategy I used to solve my problem. |  |  |  | | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | This standard calls for students to explain using concrete objects, pictures and words (oral or written) why addition or subtraction strategies work. The expectation is that students apply their knowledge of place value and the properties of operations in their explanation.  Students should have the opportunity to solve problems and then explain why their strategies work. | | | **Example:**  **There are 36 birds in the park. 25 more birds arrive. How many birds are there? Solve the problem and show your work.** | | | **Student A**  I broke 36 and 25 into tens and ones and then added them. 30 + 6 + 20 + 5. I can change the order of my numbers, so I added 30+20 and got 50. Then I added on 6 to get 56. Then I added 5 to get 61. This strategy works because I broke all the numbers up by their place value. | **Student B**  I used place value blocks and made a pile of 36. Then I added 25. I had 5 tens and 11 ones. I had to trade 10 ones for a 10. Then I had 6 tens and 1 one. That makes 61. This strategy works because I added up the tens and then added up the ones and traded if I had more than 10 ones. | | **Students could also have experiences examining strategies and explaining why they work. Also include incorrect examples for students to examine. Operations embedded within meaningful context promote development of reasoning and justification.** | | | **Example A**  One of your classmates solved the problem 56 - 34 = \_\_ by writing ―I know that I need to add 2 to the number 4 to get 6. I also know that I need to add 20 to 30 to get 20 to get to 50. So, the answer is 22.‖ Is their strategy correct? Explain why or why not? | **Example B**  One of your classmates solved the problem 25 + 35 by adding 20 + 30 + 5 + 5. Is their strategy correct? Explain why or why not? |  |  |  | | --- | --- | | **Lessons and Resources for Number and Operations in Base Ten 9** | | | [CGI – Addition and Subtraction Story Bank](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) |  |  |  |  |  | | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [3. Construct viable arguments and critique the reasoning of others.](http://elementarymath.dmschools.org/3-construct-viable-arguments-and-critique-the-reasoning-of-others1.html) | [4. Model with mathematics.](http://elementarymath.dmschools.org/4-model-with-mathematics1.html) | | [5. Use appropriate tools strategically.](http://elementarymath.dmschools.org/5-use-appropriate-tools-strategically2.html) | [7. Look for and make use of structure.](http://elementarymath.dmschools.org/7-look-for-and-make-use-of-structure2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

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| |  |  | | --- | --- | | **Standard** | **Learner Objective** | | Measurement and Data 8:  Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?* | * I can count money combinations including dollars, quarters, dimes, nickels, and pennies. * I can write money amounts using the symbols $ and ¢. * I can solve word problems using dollars, quarters, dimes, nickels, and pennies. |  |  |  | | --- | --- | | **What does this standard mean the students will know and be able to do?** | | | In Second Grade, students solve word problems involving either dollars or cents. Since students have not been introduced to decimals, problems focus on whole dollar amounts or cents.  **This is the first time money is introduced formally as a standard.** Therefore, students will need numerous experiences with coin recognition and values of coins before using coins to solve problems. Once students are solid with coin recognition and values, they can then begin using the values coins to count sets of coins, compare two sets of coins, make and recognize equivalent collections of coins (same amount but different arrangements), select coins for a given amount, and make change.  As teachers provide students with sufficient opportunities to explore coin values (25 cents) and actual coins (2 dimes, 1 nickel), teachers will help guide students over time to learn how to mentally give each coin in a set a value, place the random set of coins in order and use mental math, adding on to find differences, and skip counting to determine the final amount. | | | **Example A** | **Example B** | | What are some possible combinations of coins (pennies, nickels, dimes and quarters) that equal 37 cents? | What are some possible combinations of dollar bills ($1, $5 and $10) that equal $12? |  |  |  |  |  | | --- | --- | --- | --- | | **Lessons and Resources for Measurement and Data 8** | | | | | Expressions: Unit 11 - Lesson 17, Activity Cards (Challenge) (page 871) | Expressions: Unit 9 – Lesson 10 (page 672) | Expressions: Unit 9 - Lesson 10, Activity Cards (On Level, Challenge) (page 673) | [CGI – Addition and Subtraction Story Bank](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) | | [Counting Coins](http://illuminations.nctm.org/ActivityDetail.aspx?ID=217) | [Counting Coins/Dollars Practice](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Unit%204/Counting%20Coins%20Dollar%20Practice.pdf) | [Mr. Mole’s Money](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Unit%204/mr%20moles%20money.pdf) |  |  |  |  |  | | --- | --- | --- | | **Emphasized Standards for Mathematical Practice** | | | | [1. Make sense of problems and persevere in solving them.](http://elementarymath.dmschools.org/1-make-sense-of-problems-and-persevere-in-solving-them1.html) | [2. Reason abstractly and quantitatively.](http://elementarymath.dmschools.org/2-reason-abstractly-and-quantitatively2.html) | [4. Model with mathematics.](http://elementarymath.dmschools.org/4-model-with-mathematics1.html) | | [5. Use appropriate tools strategically.](http://elementarymath.dmschools.org/5-use-appropriate-tools-strategically2.html) | [6. Attend to precision](http://elementarymath.dmschools.org/6-attend-to-precision2.html) | [8. Look for and express regularity in repeated reasoning.](http://elementarymath.dmschools.org/8-look-for-and-express-regularity-in-repeated-reasoning3.html) | |

**Optional Whole Group Lesson Progression**

Unit Pacing: 6 Weeks

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| --- | --- | --- | --- | --- |
| **Resource** | | **Location** | **Primary Focus** | **Standard** |
| Embed [CGI type word problems](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) daily to reinforce the skills taught- each day provide opportunities to problem solve | | | | |
| Expressions | Unit 3 – Lesson 3, Activity 1 & 2 (Page 620) | | * Finding Unknown Partners * Finding Unknown Partners of 100 | NBT.5 |
| Expressions | Unit 5 – Lesson 18 (page 424) | | * Finding Unknown Partners of 100 | NBT.5 |
| Expressions | Unit 9 - Lesson 5, Activity 2 (page 635) | | * Adding using the Expanded Method | NBT.5 |
| Expressions | Unit 5 – Lesson 11 (page 382) | | * Adding using the New Groups Below Method | NBT.5 |
| Expressions | Unit 9 – Lesson 7 (page 650) | | * Subtraction using the Expanded Method | NBT.5 |
| Expressions | Unit 9 – Lesson 8 (page 658) | | * Subtraction using the Ungroup Method | NBT.5 |
| Expressions | Unit 9 – Lesson 12, Activity 2 (page 684) | | * Finding Unknown Partners | NBT.5 |
| Expressions | Unit 5 - Lesson 17, Activity 3 (page 420) | | * Adding a series of two-digit numbers | NBT. 6 |
| Expressions | Unit 5 - Lesson 17, Activity 3, On Level and Challenge Cards (page 421) | | * Adding a series of two-digit numbers | NBT. 6 |
| Problem Types on the Curriculum Guide page 2 | [CGI problem bank](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/CGI%20Addition%20and%20Subtraction%20Story%20Bank.docx) | | * Using the CGI problem bank teach the problem types listed on page 2 of the curriculum guide. ***CGI word problems should be a part of your weekly routines.*** * Identify the action in a one-step problem * Solve one-step word problems with numbers within 100 using addition and subtraction * Identify both actions in two-step story problems * Solve two step word problems within 20 using addition and subtraction | OA.1  NBT.9 |
| Expressions | Unit 9 – Lesson 11 (page 676) + CGI Story Problem Bank | | * Solving one and two step story problems | OA. 1  NBT.9 |
| Illuminations | [Counting Coins: Coin Box](http://illuminations.nctm.org/ActivityDetail.aspx?ID=217) | | * Website where students learn how to count, collect, exchange and make change for coins. | MD. 8 |
| Quantiles.com | [Mr. Mole’s Money](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Unit%204/mr%20moles%20money.pdf) | | * Determine the value of sets of coins. * Create equivalent amounts with different coins and dollar bills | MD. 8 |
| Quantiles.com | [Counting Coins/Dollars Practice](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/2nd%20Grade/Unit%204/Counting%20Coins%20Dollar%20Practice.pdf) | | * Determining the value of a set of coins or bills * Find equivalent money amounts using different denominations | MD. 8 |
| Expressions | Unit 9 – Lesson 10 (page 672) | | * Decomposing money * Subtracting money combinations | MD. 8 |
| Expressions | Unit 11 – Lesson 17 Activity Cards Challenge (page 871) | | * Subtracting money combinations | MD. 8 |
| Expressions | Unit 9 – Lesson 10 , Activity Cards (On Level, Challenge) (page 673) | | * Subtracting money combinations | MD. 8 |

**\*Units are designed for one lesson per day. This is an approximate. Some lessons may take more than one day. Use teacher discretion based on student need when planning unit length.**