# 2nd Grade Unit 2

**Grade: 2nd**

# FCPS 2025-2026 Math Unit 2

| **Unit Title: Numbers Within 100: Addition, Subtraction, Time, and Money** | **Estimated Time F** |
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Essential Standards: 2.OA.1, 2.NBT.5, 2.MD.7, 2.MD.8
Supporting Standards: 2.OA.2, 2.NBT.2, 2.NBT.9
End of Unit Common Assessment

| **FCPS Supporting Links** | **Additional Supporting Links** |
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| Pacing Guide<br><br>Standards Progression<br><br>FCPS Math Guidance Document<br><br>Elementary Intellectual Preparation Cycle<br><br>Trauma-Informed Strategies<br><br>Unit 1<br>Unit 2<br>Unit 3<br>Unit 4<br>Unit 5<br><br>CRA Examples (concrete, representational, & abstract)<br><br>Unit 2: Unit Flow & Progression Video*<br>*Must be logged into i-Ready to access this link | **Kentucky Academic Standards**<br>Achieve the Core Progression Documents<br>• Operations and Algebraic Thinking<br>• Numbers and Operations in Base T<br>• Measurement and Data<br>Literary Connections<br>Target of the Standards - conceptual, pro<br>Multilingual Glossary of Vocabulary<br>Illustrated Vocabulary Cards<br>Unit 2 Language Support for English Learn<br>Manipulative List*<br>*Must be logged into i-Ready to access this link. |

## Big Ideas

- We can use what we know about tens and ones to help us add numbers by place value.
- Adding or subtracting from a tens number can make a problem easier. Therefore, knowing how to break apa nearest ten can help us solve addition and subtraction problems.
- We can extend the math strategies we use when adding and subtracting within 20 to adding and subtracting
- Models can represent word problems. Knowing how to create a good model will help us solve one- or two-
- We can use what we know about skip counting to help us tell time to the nearest 5 minutes and solve word
- It is important to actively participate in discussions by asking questions and rephrasing or building on classr

**For more information, view the **Math Background pages 137m-137p** in the Teacher's Guide (must be logged into i-R*

| **Essential Questions** | **Common Preconceptions/Misconceptio** |
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| How can objects, drawings, and equations help us make sense of and solve word problems?<br><br>How can you solve for an unknown in an addition or subtraction equation?<br><br>What math strategies can we use to add and subtract within 100?<br><br>How do we choose the best strategy for solving a real-life math problem?<br><br>How can we use our understanding of skip counting, addition, and subtraction to help us solve word problems involving time and money? | • Story Problems - KEYWORDS can<br>they can have multiple meanings.<br>girls and 8 boys in our class. How<br>than boys? Students may see the k<br>assume this is an addition problem<br>routines, such as the 3 reads of nu<br>best helps "mathematize" the situa<br>• Students may not recognize when<br>missing-addend problem. To tackle<br>support students in identifying the<br>situation. Ask them to describe wh<br>they think they are looking for to s<br>help students realize that the total<br>in that case, they need to find a mi |

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| How do we use the cent (¢) and dollar ($) symbols appropriately? | • Students may not know where to b not at the end of an equation. Help equations to what they know abou bonds in order to rewrite equations the end.<br>• Students may misread the time wh between numbers. Give students c the hour hand moves over the cou students notice that it is not 9:00, f hand has reached the 9 and then ti 9:00 hour until the hand has reach clock can be helpful for this. |
| **Standards for Mathematical Practices** | **Kentucky Interdisciplinary Literacy Pra** |
| MP.1. Make sense of problems and persevere in solving them.<br>MP.2. Reason abstractly and quantitatively.<br>MP.3. Construct viable arguments and critique the reasoning of others.<br>MP.4. Model with mathematics.<br>MP.5. Use appropriate tools strategically.<br>MP.6. Attend to precision.<br>MP.7. Look for and make use of structure.<br>MP.8. Look for and express regularity in repeated reasoning. | 1. Recognize that text is anything that com<br>2. Employ, develop, and refine schema to text.<br>3. View literacy experiences as transactio transformational.<br>4. Utilize receptive and expressive langua understand self, others, and the world.<br>5. Apply strategic practices, with scaffold independently, to approach new literacy t<br>6. Collaborate with others to create new r<br>7. Utilize digital resources to learn and sha<br>8. Engage in specialized, discipline-speci<br>9. Apply high-level cognitive processes to about text.<br>10. Develop a literacy identity that promot |
| **Essential Standards** | **Sample Learning Intentions & Success Criteria** |
| | **❗ Indicates a misalignment with Kentu**<br>**🔷Indicates a consideration fo** |
| **Cluster: Represent and solve problems involving addition and subtraction.** | |
| **KY.2.OA.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, by using drawings and equations with a symbol for the unknown number to represent the problem. MP.1, MP.2, MP.4**<br><br>❑Conceptual ❑ Procedural ❑Application<br><br>Students flexibly model or represent addition and subtraction situations or context problems (involving sums and differences within 100). | We are learning to add and subtract within 100 so that we can make sense of problems and persevere in solving them.<br><br>I know I am successful when...<br>• I can use drawings and models to represent one-step and two-step word problems within 100.<br>• I can identify the unknown number in word problem and represent it with a symbol.<br>• I can solve for an unknown number in |

Note: Drawings need not show detail, but accurately represent the quantities involved in the task. **See Table 1 in Appendix A.**

Students master all word problem subtypes including the four difficult ones:

- add to-start unknown
- take from-start unknown
- put together/take apart-addend unknown
- compare-bigger unknown/smaller unknown

Coherence K.1.OA.1→ KY.2.OA.1→ KY.3.OA.8

*Supporting Standards: 2.NBT.9*

any position using drawings and equations.

**Attending to the Standards for Mathematical Practice**

When reading/interpreting word problems, students recognize a number (eight or 8) represents a quantity (eight b is happening to these quantities in the context of the problem (MP.2). Students experiment in different ways to so Students think of questions to ask themselves, such as "Which diagram could help me?" Students work in groups subtraction stories using concrete objects/pictures to demonstrate different situations and write an addition or su match their stories (MP.1).

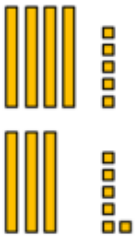
**Cluster: Use place value understanding and properties of operations to add and subtract.**

**KY.2.NBT.5 ~~Fluently~~ add and subtract within 100 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction. MP.2, MP.8**

❑Conceptual ☐ Procedural ❑ Application

Students solve addition and subtraction tasks (with sums and differences within 100) efficiently, accurately, flexibly, and appropriately. Being fluent means students choose flexibly among methods and strategies to solve contextual and mathematical problems, they understand and explain their approaches and they produce accurate answers efficiently.
Note: Reaching fluency is an ongoing process that will take much of the year. Students are not expected to use an algorithm for addition and subtraction until grade 4.

45 + 36 =



Students can solve this problem many ways.

We are learning about mental math strategies so we can add and subtract fluently within 100.

I know I am successful when...

- I can add and subtract based on place value.
- When adding, I can break apart two-digit numbers to add tens to ten and ones to ones.
- I can determine when grouping a ten is necessary and carry out the regrouping to find a sum.
- I can determine when decomposing ten is necessary and carry out the decomposition to find the difference
- I can add and subtract using the relationship between addition and subtraction.

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| Student one counted the tens first, so 10, 20, 30, 40, 50, 60, 70. Then they counted the ones, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81. So 45+36=81<br>Student two broke 36 into 30+1+5. Then gave 5 from 36 to the 45 to make 50 because 50 is a friendly number. Then added 30+50 to make 80. Finally added 1 to 80 to get 81. So 45+36=81.<br><br>Coherence KY.1.NBT.4→ KY.2.NBT.5→KY.3.NBT.2<br><br>*Supporting Standards: 2.OA.2, 2.NBT.9* | |

**Attending to the Standards for Mathematical Practice**

Students notice their knowledge of tens and ones can be used to solve addition problems. For example, decomp ones: 20 + 40 + 4 + 2) (MP. 8). For other problems, students choose to use a counting up/back strategy. For 57 – 1 number line and jump back 20 (to 37) and then up 2 (to 39). Students select among their repertoire of strategies b the problem (MP.1, MP.2). These strategies are extended to adding strings of numbers as well as larger numbers. S strategies, critique the strategies shared by others and reflect on which strategies are efficient for the problem po notice when numbers are added or subtracted in the base-ten system, like units are added or subtracted (ones a tens, hundreds to hundreds) and use this pattern to solve problems mentally (MP.8).

**Cluster: Work with time and money.**

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| **KY.2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. MP.5, MP.6**<br><br>❑Conceptual ❑ Procedural ❑ Application<br><br>Students orally tell and write the time from both types of clocks to the nearest five minutes. Realizing that a clock can be seen as a number line.<br>KY.2.NBT.2<br>Coherence KY.1.MD.3→KY.2.MD.7→KY.3.MD.1<br><br>*Supporting Standards: 2.NBT.2* | We are learning to use analog and digital clocks so we can tell and write time.<br><br>I know I am successful when...<br>• I can explain the difference between a.m. and p.m.<br>• I can correctly use a.m. or p.m. when telling time.<br>• I can tell time on a digital clock to the nearest five minutes.<br>• I can tell time on an analog clock to the nearest five minutes.<br>• I can show the time on an analog clock to the nearest five minutes.<br>• I can write the time to the nearest five minutes. |
| **KY.2.MD.8 Solve word problems with adding and subtracting within 100, (not using dollars and cents simultaneously) using the $ and ¢ symbols appropriately (not including decimal notation). MP.1, MP.5**<br><br>❑Conceptual ❑ Procedural ❑Application<br><br>Students add or subtract two coin values or dollar values, but not both in the same problem. | We are learning to add and subtract within 100 so we can solve word problems involving money.<br><br>I know I am successful when:<br>• I can identify coins by name and value<br>• I can count on, skip count, or add to find the total value of a collection/set coins. |

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| • For example, if you have 6 dimes and 3 pennies, how many cents do you have? Students would understand that 6 dimes are equal to 60 cents and 3 pennies are equal to 3 cents. Together, they would total 63 cents.<br>• If Mary had $31 and Tommy gave her $22 for her birthday, how much money does Mary have now? $31 + $22 = $53.<br>Note: Students are not introduced to decimals until grade 4.<br><br>KY.2.OA.1<br>Coherence KY.1.MD.3→ KY.2.MD.8<br><br>*Supporting Standards: 2.NBT.2* | • I can solve word problems involving coins or dollars.<br>• I can use the $ and ¢ symbols appropriately. |

**Attending to the Standards for Mathematical Practice**

Students connect skip-counting by fives and five-minute intervals on the clock (MP.8). Students attend to precisio minutes and hours are determined on analog and digital clocks, as well as whether to label the time as a.m. or p.m sense of authentic problems involving money, using actual coins or representations of coins and use these coins (MP.1). As students solve such problems, they write equations to represent the situation, using units ($ or ¢) to cor quantities (MP.4).

| **Supporting Standards** | **Sample Learning Intentions & Success Criteria** |
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| **KY.2.OA.2 ~~Fluently~~ add and subtract within 20 using mental strategies. MP.2, MP.7, MP.8**<br><br>❑Conceptual ☐ Procedural ❑ Application<br><br>Students determine addition and subtraction strategies efficiently, accurately, flexibly, and appropriately. Being fluent means students choose flexibly among methods and strategies to solve contextual and mathematical problems, they understand and explain their approaches, they produce accurate answers efficiently, and appropriately use mental strategies that include:<br>• Count on<br>• Make 10<br>○ *8 + 6 = 8 + 2 + 4 = 10 + 4 =14*<br>• Decompose a number leading to a ten<br>○ *13 - 4 = 13 - 3 - 1 = 10 - 1 = 9*<br>• Use the relationship between addition and subtraction<br>○ *I know 8 + 4 = 12 and I also know 12 - 8 + 4*<br>• Create equivalent, but easier or known sums<br>○ *I can add 6 + 7 by creating 6 + 6 + 1 = 12 + 1 = 13*<br><br>Note: Reaching fluency is an ongoing process that will take much of the year | We are learning about mental math strategies so we can add and subtract fluently within 20.<br><br>I know I am successful when:<br>• I can use a counting-on strategy to add and subtract.<br>• I can compose and decompose addends to make a ten to help me ad and subtract.<br>• I can use doubles facts to add and subtract.<br>• I can use known doubles facts to help me solve near doubles facts.<br>• I can use reasoning to choose the most efficient strategy when adding and subtracting.<br>• I can explain my reasoning for choosing the strategy I used to solve problem. |

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| KY.2.NBT.5<br>Coherence KY.1.OA.6→ KY.2.OA.2 | |
| **KY.2.NBT.2 Count forwards and backward within ~~1000~~ *500*; skip-count by 5s, 10s, and 100s. MP.8, MP.1, MP.6**<br><br>❑Conceptual ❑Procedural ❑ Application<br><br>Students start at various numbers to skip-count. Some use tools such as base ten blocks, hundreds charts, number lines, and money<br><br>Coherence KY.1.NBT.1→ KY.2.NBT.2 | We are learning about counting so that we can count forwards and backward by 5s, 10s, and 100s within 500.<br><br>I know I am successful when...<br><br>• I can count forward and backward by 1s starting at any number to 500.<br>• I can skip count forward and backward by 5s within 500.<br>• I can skip count forward and backward by 10s within 500.<br>• I can skip count forward and backward by 100s within 500. |
| **KY.2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.3, MP.7**<br><br>❑Conceptual ❑ Procedural ❑ Application<br><br>Students support explanations with drawings and/or objects built on place value and properties of operations.<br><br>Coherence KY.1.OA.3→ KY.2.NBT.9 | We are learning about mental math strategies so we can fluently add and subtract within 100.<br><br>I know I am successful when:<br>• I can explain my reasoning for choosing the strategy I used to solve a problem.<br>• I can explain why my strategy work for a problem.<br>• I can support my explanation with drawings and/or objects built on place value and properties of operations. |