**Grade Level: 2nd**  **Content Area: MATH**

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| **Unit 1 - Operations and Algebraic Thinking** | |

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| **Essential Standards Addressed in this Unit**  CCSS/[ELP](http://www.elpa21.org/sites/default/files/Final%204_30%20ELPA21%20Standards_1.pdf)/[CCEE (Common Core Essential Elements- for SPED)](http://www.k12.wa.us/SpecialEd/pubdocs/CCEE-CCSS-ELA.pdf)/Other State Standards |
| **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, e.g., by using a symbol for the unknown number to represent the problem.  **2.OA.2** Fluently add and subtract within 20 using mental math strategies. By the end of Grade 2, know from memory all sums of all 2 one-digit numbers.  **2.OA.3:** Work with equal groups of object to gain foundations for multiplication. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2’s, write an equation to express an even number as a sum of two equal addends. **(not a priority standard)**  **2.OA.4:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. **(not a priority standard)**  **2.NBT.2:** Understand place value. Count within 1,000; skip count by 5’s, 10’s, and 100’s.  **8 mathematical practices**   1. Make sense of problems and persevere in solving them    1. I can solve problems without giving up 2. Reason abstractly and quantitatively    1. I can think about numbers in different ways 3. Construct viable arguments and critique the reasoning of others    1. I can explain my thinking and try to understand others 4. Model with mathematics    1. I can show my work in many ways 5. Use appropriate tools strategically    1. I can use math tools and explain why I used them 6. Attend to precision    1. I can work carefully and check my work 7. Look for and make use of structure    1. I can use what I know to solve new problems 8. Look for and express regularity in repeated reasoning    1. I can solve problems by looking for rules and patterns |

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| **Learning Targets** |
| **2.OA.1**  I can use addition within 20 to solve one-step word problems  I can use subtraction within 20 to solve one-step word problems  I can use addition within 20 to solve two-step word problems  I can use subtraction within 20 to solve two-step word problems  I can use addition and or subtraction involving adding to with unknowns in all positions  I can use addition and or subtraction involving taking from with unknowns in all positions  I can use addition and or subtraction involving putting together with unknowns in all positions  I can use addition and or subtraction involving taking apart with unknowns in all positions  I can use addition and or subtraction involving comparing with unknowns in all positions  I can use drawing and equations with a symbol for the unknown number to represent the problem.  **2.OA.2**  I can fluently add within 20 mentally  I can fluently subtract within 20 mentally  **2.NBT.2:**  I can skip forward and backward within 1,000 by ones (from any given number)  I can skip count by 5’s within 1,000  I can skip count forward and backwards by 10’s and 100’s from any given number within 1,000 |

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| **Learning Progressions** |
| **1.OA.1:** Represent and solve problems involving addition and subtraction   * Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.   **3.OA.1:** Represent and solve problems involving multiplication and division   * Interpret products of whole numbers, e.g., interpret 5x7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5x7.   **1.OA.2:**Represent and solve problems involving addition and subtraction   * Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem   **3.OA.2:** Represent and solve problems involving multiplication and division   * Interpret whole- number quotients of whole numbers, e.g., interpret 56/8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal share of 8 objects each.   1.NBT.2:understand place value. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following special cases.   1. 10 can be thought of as a bundle of ten ones- called a ten 2. The numbers from 11-19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. 3. The numbers 10, 20, 30, 40, 50, 60, 70 ,80 , 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones)   3.NBT.2: |

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| **Key Vocabulary** | | |
| **Lesson 1**  Sum  Difference  Fact family  Add  Addend  Subtract  Count on  Equation  Number bond  Open number line | **Lesson 2**  Equation  Equal sign  Bar model  Tape diagram  Number bond  Total  Change  Start  Model  Add  subtract | **Lesson 3**  Add  Subtract  Make a ten  Tens  Ones  Equation  Open number line  Ladder model  Model |
| **Lesson 4**  Even number  Odd number  Equal groups  Doubles  Doubles plus one  Skip count  Patterns  Digit  Ones | **Lesson 5**  Array  Row  Column  Digit  Equation  Add  Skip count  doubles | **Lesson 6**  Model  Equation  Add  Subtract  Tape diagram  Open number line |

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| **Common Assessments**  Formative and Summative |
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| Weekly Plans |
| Week One  **Lesson 1**  **2.OA.2** Fluently add and subtract within 20 using mental math strategies. By the end of Grade 2, know from memory all sums of all 2 one-digit numbers.  Learning Targets:  Day 1:  I can identify a fact family.  I can use fact families to add and subtract.  Day 2:  I can use fact families to subtract.  Day 3:  I can demonstrate my understanding of fact families using models and mental strategies.  Day 4:  I can independently demonstrate my understanding of fact families.  **Lesson 2**  **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, e.g., by using a symbol for the unknown number to represent the problem.  Learning Targets:  Day 1:  I can use a bar model to solve a one step word problem.  Day 2:  I can solve take-apart word problems.  Day 3:  I can solve comparison word problems.  Day 4:  I can independently solve one step word problems.  **Lesson 3**  **2.OA.2** Fluently add and subtract within 20 using mental math strategies. By the end of Grade 2, know from memory all sums of all 2 one-digit numbers.  Learning Targets:  Day 1:  I can make combinations of ten.  I can break apart a number to make a ten to add and subtract.  Day 2:  I can make a ten on an open number line.  I can use an open number line to add and subtract.  Day 3:  I can demonstrate my understanding of a make a ten strategy.  Day 4:  I can independently demonstrate my understanding of a make a ten strategy.  **Lesson 4- This lesson needs to be taught outside of the Core Math block**  **2.OA.3:** Work with equal groups of object to gain foundations for multiplication. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2’s, write an equation to express an even number as a sum of two equal addends. **(not a priority standard)**  **Learning Targets:**  Day 1:  I can break apart a group of objects into two groups and determine if it is odd or even.  Day 2:  I can identify even and odd numbers.  Day 3:  I can demonstrate my understanding of even and odd numbers by identifying and generalizing a pattern on a 1-20 chart.  Day 4:  I can independently identify if a number is even or odd.  **Lesson 5**  **2.OA.4:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. **(not a priority standard)**  2.NBT.2: understand place value. Count within 1,000; skip count by 5’s, 10’s, and 100’s.  **Learning Targets:**  Day 1:  I can set objects in equal rows and columns.  I can write an equation with equal addends to find the total number of objects in an array.  Day 2:  I can use an array as a representation for solving an addition problem.  Day 3:  I can solve a word problem by creating an array to help me write an equation.  Day 4:  I can independently solve problems involving arrays.  **Lesson 6**  **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, e.g., by using a symbol for the unknown number to represent the problem.  **Learning Targets:**  Day 1:  I can solve a two step word problem and write a corresponding equation.  Day 2:  I can use a model to solve two step word problems.  Day 3:  I can solve two step word problems using pictures and number lines.  Day 4:  I can independently solve two step word problems. |
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| Lesson | Instruction Pg # | Question # | PPS Pg # | Question # |
| 1- Understand Mental Math Strategies 2.OA.B.2 | 2-3 | Intro, pg 3- Think/Reflect | 3-4 | 2, 6 |
| 4-5 |  | 5-6 | pg 5 example, pg 6 4-5 |
| 6-7 |  | 7-8 |  |
| 2- Solve One-Step Word Problems 2.OA.A.1 | 8-9 |  | 11-12 | 3, 5 |
| 10-11 |  | 13-14 | 5 |
| 12-13 | Try It | 15-16 | 4 |
| 14-15 | Example, 13, 14 | 17-18 | 1, 2, 2003 |
| 16-17 | 3, 4 |  |  |
| 3- Understand Mental Math Strategies (Make a Ten) 2.OA.B.2 | 18-19 | 1- Reflect | 21-22 | 2 |
| 20-21 | 2, 3, 5, 7, 11 | 23-24 | 1, 5 |
| 22-23 |  | 25-26 |  |
| SKIP 4- Understand Even and Odd 2.OA.C.3  **This lesson needs to be taught outside of the Core Math block** | 24-25 |  | 29-30 |  |
| 26-27 |  | 31-32 | 1, 2, 3, & 4 |
| 28-29 |  | 33-34 |  |
| 5- Add Using Arrays- 2.OA.C.4 . 2.NBT.A.2 | 30-31 |  | 37-38 |  |
| 32-33 | Model It 1 & 3 | 39-40 | Example, #1 |
| 34-35 |  | 41-42 | 1, 4 |
| 36-37 | pg 36- Quick Check4- counting by odd #s, 5 |  |  |
| 6- Solve Two-Step Word Problems 2.OA.A.1 | 38-39 |  | 45-46 |  |
| 40-41 |  | 47-48 | 3, 4 |
| 42-43 | 14 | 49-50 |  |
| 44-45 | 15 | 51-52 |  |
| 46-47 | 2 |  |  |

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| **Intervention/Enrichment Plan** | |
| **Below Grade Level Interventions** | **Above Grade Level Enrichments** |
| **iReady Program at individual levels. Goal of 45 time on task minutes per week.** | |
| **THE/EVE- Box of Facts, Origo** | **Fact Practice** |
| **THE- Number Corner (Common Core Edition)** | **Problem Solving Types- review grade 1 types, 2nd grade** |
| **Moxee- Fact Practice** | Skip counting, numbers to 1000 |
| **Reflex Math** |  |
| **Problem Solving Types- k/1** |  |
| **Numbers to 1000, skip counting** |  |
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| **Resources** | |
| **Core Resources** | **Additional Resources** |
| Ready common core  Green student book (practice and problem solving)  Green and white student book (mathematics instruction)  Anchor Charts  Iready  [Word Problems- 15 Types](https://drive.google.com/open?id=18ZuSV0XzLTZpzkCJl9jWhjfsoYfWPdNx) | GLAD strategies EVE- Jen Powell  Moxee -Michele Gress  TH - Ask Jen Powell for now  District - Tracy Austin |

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| **Reflection Notes** |
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