

Mamie Martin Elementary
Kindergarten MATH
February 12th- March 2nd

Unit 12: Understanding Addition and Subtraction within 10

Envision Alignment:

K.OA.1: Topic 4 – Lessons 4, 5, 6, and 7; Topic 7 – Lessons 1, 2, 3, 4, 5, 6, and 7; Topic 8 – Lessons 1, 2, 3, 4, 5, 6, 7, and 8

K.OA.2: Topic 7 – Lessons 1, 2, 3, 4, 5, 6, and 7; Topic 8 – Lessons 1, 2, 3, 4, 5, 6, and 8

K.OA.3: Topic 9 – Lessons 1, 2, 3, 4, 5, 6, and 8

Unit Summary:

In this unit students extend their understanding from unit 11 to include addition and subtraction up to 10. Put Together/Take Apart situations with Both Addends Unknown are important because they allow Kindergarteners to explore various compositions and decompositions of each number. Practice with composing and decomposing numbers supports the development of numeric reasoning. This is essential to developing more sophisticated addition and subtraction strategies this year and in later grades.

Focus Standards and *Specific Guidance for this Unit (*The MCCR Standard is listed along with specific guidance on what part of the standard to teach in this unit*)

Operations and Algebraic Thinking—K.OA

A. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

K.OA.A.1. Represent addition and subtraction with objects, fingers, mental images, drawings², sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

NOTE²: Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

Teacher Notes: In this unit **K.OA.A.1** is included to emphasize the relationship between addition and subtraction using various strategies.

K.OA.A.2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

K.OA.A.3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).

Teacher Notes: **K.OA.A.3** is foundational for addition and subtraction strategies in Grade 1 (**1.OA.C.6**).

LEARNING OUTCOMES:

- Add and subtract within 10 with known and unknown addends in equations and word problems.
- Compose and decompose numbers within 10.

LEARNING TARGETS

- **K.OA.1.1** Use manipulatives to represent addition.
- **K.OA.1.2** Use manipulatives to represent subtraction.
- **K.OA.1.3** Add using my fingers.
- **K.OA.1.4** Create drawings to represent addition equations.
- **K.OA.1.5** Use mental images to imagine an equation for addition.
- **K.OA.1.6** Act out an equation to solve addition problems.
- **K.OA.1.7** Use a number line to solve addition problems.

- **K.OA.1.8** Practice addition equations by using many methods (acting out, drawing, using sounds, expressions, verbal explanations).
- **K.OA.1.9** Practice subtraction equations by using many methods (acting out, drawing, using sounds, expressions, verbal explanations).
- **K.OA.1.10** Explain how to solve word problems and equations.
- **K.OA.1.11** Relate addition equations to real life situations.
- **K.OA.1.12** Recognize the plus sign, minus sign, and equal sign and know how to use each.
- **K.OA.1.13** Recognize an answer to an addition problem as the sum or total.
- **K.OA.1.14** Recognize the answer to a subtraction problem as the difference.
- **K.OA.1.15** Write an addition equation.
- **K.OA.1.16** Write a subtraction equation.
- **K.OA.1.17** Explain the difference between addition and subtraction fact families (how they are alike and different).
- **K.OA.2.1** Tell in my own words what a simple word problem is asking and show how a word problem is solved.
- **K.OA.2.2** Use objects or drawings to solve addition problems through 10.
- **K.OA.2.3** Use objects or drawings to solve subtraction problems through 10.
- **K.OA.3.1** Use objects to show different pairs.
- **K.OA.3.2** Use drawings to record different pairs.
- **K.OA.3.3** Break a number less than or equal to 10 into pairs in more than one way ($2+3=5$ or $4+1=5$)
- **K.OA.3.4** Use equations to write/record different pairs.

Unit Vocabulary:

- | | |
|--------------------|-----------------|
| • Addition | • Taking Apart |
| • Putting Together | • Taking From |
| • Adding To | • Word Problems |
| • Subtraction | • Pairs |
| | • Fact Families |

Essential Questions:

- How do we show ways to compose or make up to 10 using concrete objects, drawings, and numbers?
- How can I describe how many of each object I need when making a number from 1-10?
- How can I solve story problems by using counting strategies?
- How can I use drawings, manipulatives or acting out to help me solve addition or subtraction story problems through 10?
- How can I explain how many objects I have up to 10 by acting out, drawing or using manipulatives?
- How can I show my understanding of a word problem by writing an equation?
- How can I explain in my own words the difference between addition and subtraction fact families (how they are alike and different).

Assessment/Test Questions

If I have 6 how many more do I need to make 10?

If I have 10 and take away 3 how many do I have left?

If I have 4 pieces of chocolate and my mom gives me 3 more, how many do I have now?

Write an equation to represent the problem above.

Use the number line to represent 4 plus 4 more.