## Core Content

**Cluster Title:** Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

**Standard 2:** Solve addition and subtraction word problems, and add and subtract within 10 (e.g., by using objects or drawings to represent the problem).

### MASTERY Patterns of Reasoning:

#### Conceptual:
- Students will understand that addition is the joining of two sets.
- Students will understand that subtraction is decomposing a set.
- Students will understand that each set in an addition problem is represented by a number, and when the numbers are joined together they make a new set.
- Students will understand that the set in a subtraction problem is represented by a number, and when the numbers are separated they make two sets.

#### Procedural:
- Students can solve addition and subtraction story problems using objects and drawings.
- Students can add by joining and subtract by separating.

#### Representational:
- Students can use objects and drawings to represent addition and subtraction problems.

## Supports for Teachers

### Critical Background Knowledge

#### Conceptual:
- Addition is the joining of two sets to create a larger set.
- Subtraction is the separation of a larger set into two smaller sets.

#### Procedural:
- Solve addition and subtraction problems with objects, fingers, mental images, drawings, sounds acting out situations, verbal explanations, expressions, or equations to join sets.

Code: K.OA.2
**Representational:**
Model addition and subtraction using objects, fingers, mental images, drawings, sounds acting out situations, verbal explanations, expressions, or equations.

**Academic Vocabulary and Notation**
going, add, addend, addition, equal to, equation, expression, subtract, sum, difference, plus, minus, separate, combine, put together, total, take away, compare

**Instructional Strategies Used**
- In a whole-group setting, teacher dictates a story problem while students create a representation with manipulatives.
- In partners, students create and solve story problems using manipulatives.
- In a whole-group setting, teacher and students create and solve word problems using pictures.
- Individually, students create and solve word problems pictorially.

**Resources Used**

**Assessment Tasks Used**

<table>
<thead>
<tr>
<th>Skill-Based Task</th>
<th>Problem Task</th>
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<tbody>
<tr>
<td>Teacher dictates an addition story problem. For example: Olivia has 3 lollipops and her friend Sophie 2 lollipops. How many lollipops do they have all together? Students draw a picture to solve the problem.</td>
<td>Teacher creates number cards 1-5. Students will draw two number cards from the pile. Students will create an addition/subtraction problem and solve using illustrations.</td>
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**Music:**
(Do an Internet search for these composers if you are interested in music for this standard)
Jack Hartman
Shari Sloane
Dr. Jean
Raffi

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