

# WAUCONDA SCHOOL DISTRICT 118

## UNIT PLANNING ORGANIZER

**Subject: Math**

**Grade Level or Course: First Grade**

**Unit 9: Add to 20**

**Pacing: 2-3 Weeks**

### STAGE 1 – DESIRED RESULTS

#### Essential Questions:

- How can I use a pattern to find a number of objects without counting?
- What strategies can I use to solve word problems?
- How can I solve addition problems?
- How can I use addition to solve a subtraction sentence?
- How can I determine if the equation involving addition and subtraction are true or false?

#### Big Ideas:

- Students will use dot patterns to show a desired number without counting.
- Students will use objects, drawings and symbols to solve word problems.
- Students will solve addition problems by putting parts together to make a whole.
- Students will use a related addition fact to solve a subtraction problem.
- Students will solve addition and subtraction problems and determine the relationship between them.

#### CCSS (Priority Standards):

- 1.OA.1** 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.
- 1.OA.2.** 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.
- 1.OA.3.** Apply properties of operations as strategies to add and subtract.
- 1.OA.6.** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).
- 1.OA.7.** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

**1.OA.8.** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

**CCSS (Supporting Standards):**

## STAGE 2 – EVIDENCE

<b>Concepts</b> <b>(What students need to know)</b>	<b>Performance Tasks</b> <b>(What students will be able to do)</b>	<b>DOK</b> <b>Blooms</b>
<ul style="list-style-type: none"> <li>• doubles plus 1</li> <li>• doubles plus 2</li> <li>• .</li> <li>• .</li> </ul>	<ul style="list-style-type: none"> <li>• Students will connecting cubes to model doubles and use the models to create doubles facts to 20</li> <li>• Students will use connecting cubes to show doubles facts to help them find the corresponding doubles-plus1 facts</li> <li>• Students will connecting cubes to show doubles facts to help them find the corresponding doubles-plus-2 facts.</li> <li>• Students will solve two-question problems by using the answer from the first question to solve the second question.</li> <li>• Students will explore the strategy of making 10 to add by using a ten-frame and counters.</li> <li>• Students use ten-frames and counters to make 10 in order to add 9 and another number.</li> <li>• Students will use ten-frames and counters to make 10 in order to add 8 and another number.</li> <li>• Student will use the</li> </ul>	

	<p>associative and commutative properties to add three one-digit numbers.</p> <ul style="list-style-type: none"> <li>Students will use strategies to simplify adding three numbers and to solve story problems.</li> </ul>	
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### STAGE 3 – LEARNING PLAN (INSTRUCTIONAL PLANNING)

#### Suggested Resources/Materials/Informational Text

- teacher manual for topic 5
- student pages for lessons 1-9
- connecting cubes, counters (or teaching tool 14), numbers cubes, double ten-frame mat (teaching tool 3), number tiles 0-19 (teaching tool 13), paper bag, books

#### Suggested Research-based Effective Instructional Strategies

Academic Vocabulary/ Word Wall	Enrichment/Extensions/ Modifications	Interdisciplinary Connection
<p><b>Essential Vocabulary:</b></p> <ul style="list-style-type: none"> <li>doubles plus 1</li> <li>doubles plus 2</li> </ul> <p><b>Worth-knowing Vocabulary:</b></p> <ul style="list-style-type: none"> <li>addends</li> <li>facts</li> <li>one apart</li> <li>two apart</li> <li>associative property</li> <li>commutative property</li> <li>whole numbers</li> <li>less than</li> <li>equal to</li> </ul>	<ul style="list-style-type: none"> <li>Students will model a doubles fact using volunteers from the class to form 2 equal groups of children.</li> <li>Students will model using a doubles fact to find a doubles-plus-1 fact, using classroom objects such as paint bottles.</li> <li>Students will recognize the doubles fact using cube trains to model</li> </ul>	

	<p>the doubles fact.</p> <ul style="list-style-type: none"><li>• Students will model solving one problem to help you find the answer to a second.</li><li>• Students will use counters and a ten-frame to act out the addition before writing the sums.</li><li>• Students will model the addition problems using a part-part-whole model to compare the two problems.</li><li>• Students will use cubes and work with a partner to help them understand why the sum of 3 numbers will stay the same no matter what order they are added together.</li><li>• Students will use a dry eraser board to model solving the problem by adding the numbers in two different orders.</li></ul>	
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