

**ASPV Primary School**  
**Trimester 1 Math Objectives**  
**2025-2026**

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**Grade: Pre-first**

<b>Trimester 1 August-November</b>	
<b><u>Mathematical Practices</u></b>	
<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	
<b><u>Essential Questions</u></b>	<ol style="list-style-type: none"> <li>1. How can I represent numbers in different ways?</li> <li>2. How do manipulatives help me add and subtract?</li> <li>3. What is a number sentence?</li> <li>4. How do we solve addition and subtraction problems/number sentences?</li> <li>5. How do we determine if number sentences are true or false?</li> <li>6. How are addition and subtraction related?</li> <li>7. What strategies can I use to find a missing number?</li> <li>8. How does drawing a picture help me organize my thinking and solve problems?</li> </ol>
<p>In Pre-first, instructional time should focus on four critical areas:</p> <p>(1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20;</p> <p>(2) developing understanding of whole number relationships and place value, including grouping in tens and ones;</p> <p>(3) developing understanding of linear measurement and measuring lengths as iterating length units; and</p> <p>(4) reasoning about attributes of, and composing and decomposing geometric shapes.</p>	

## Content Standards/Skills

### Operations & Algebraic Thinking

- A. Represent and solve problems involving addition and subtraction.
- B. Understand and apply properties of operations and the relationship between addition and subtraction.
- C. Add and subtract within 20.
- D. Work with addition and subtraction equations.

### Number & Operations in Base 10

- A. Extend the counting sequence.
- B. Understand place value.
- C. Use place value understanding and properties of operations to add and subtract.

### Measurement and Data

- A. Measure lengths indirectly and by iterating length units.
- B. Tell and write time.
- C. Represent and interpret data.

### Geometry

- A. Reason with shapes and their attributes.

## **Operations and Algebraic Thinking**

**1.OA**

### **A. Represent and solve problems involving addition and subtraction.**

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.

### **B. Understand and apply properties of operations and the relationship between addition and subtraction.**

3. Apply properties of operations as strategies to add and subtract.<sup>2</sup> *Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (Commutative property of addition.) To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.)*

### **C. Add and subtract within 20.**

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
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  $6 + 6 + 1 = 12 + 1 = 13$ ).

### **D. Work with addition and subtraction equations.**

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = \_ - 3$ ,  $6 + 6 = \_$ .*

## **Numbers & Operations in Base 10**

**1.NBT**

### **A. Extend the counting sequence.**

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

### **B. Understand place value.**

2. Understand that the two digits of a two-digit number represent amounts of tens and ones.

Understand the following as special cases:

2.a. 10 can be thought of as a bundle of ten ones — called a "ten."

2.b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

2.c. 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. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .

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

4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.