

# TOWNSHIP OF UNION PUBLIC SCHOOLS



# Grade 1 - Mathematics

Adopted Month Day, Year

### **Mission Statement**

The mission of the Township of Union Public Schools is to build on the foundations of honesty, excellence, integrity, strong family, and community partnerships. We promote a supportive learning environment where every student is challenged, inspired, empowered, and respected as diverse learners. Through cultivation of students' intellectual curiosity, skills and knowledge, our students can achieve academically and socially, and contribute as responsible and productive citizens of our global community.

### **Philosophy Statement**

The Township of Union Public School District, as a societal agency, reflects democratic ideals and concepts through its educational practices. It is the belief of the Board of Education that a primary function of the Township of Union Public School System is to formulate a learning climate conducive to the needs of all students in general, providing therein for individual differences. The school operates as a partner with the home and community.

## Unit 1 - Module A

### Unit Title: Mathematics – Strategies for Addition and Subtraction – Unit 1 – Module A

Grade level: Grade 1

Timeframe: Marking Period 1

#### Rationale

##### *Grade 1 – Strategies for Addition and Subtraction – Unit 1*

The primary focus of Unit 1 is addition and subtraction. Building upon the counting sequence mastered in Kindergarten, learners begin counting to 120, reading and writing numbers through 50 and representing objects with a written number. Learners build place value understanding as they learn that a ten is a bundle of ten ones and can be used to compose numbers 11 through 19.

An important conceptual understanding for their future work in mathematics is the meaning of the equal sign. Learners use this understanding to determine if addition and subtraction equations are true or false. Learners solve word problems using various strategies for addition and subtraction and use equations with an unknown in any position.

Introducing composite two-dimensional shapes is essential for expanding geometric skills and concepts from kindergarten. Grade 1 learners move beyond describing objects in the environment using two-dimensional shapes to composing new shapes from composite two-dimensional shapes.

Note: Double asterisks (\*\*) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

#### Essential Questions

## Standards

### Standards (Taught and Assessed):

- **1.NBT.A.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.
- **1.NBT.B.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
  - a. 10 can be thought of as a bundle of ten ones — called a “ten.”
  - b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- **1.OA.A.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.C.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- **1.OA.B.3** Apply properties of operations as strategies to add and subtract.3 *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.)* {Students need not use formal terms for these properties}
- **1.OA.D.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?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .*
- **1.OA.D.8** Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = ? - 3$ ,  $6 + 6 = ?$ .*

Key: ■ Major Cluster

□ Supporting Cluster

◎ Additional Cluster

### Highlighted Career Ready Practices and 21. Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

### Social-Emotional Learning Competencies

- Self-Awareness
- Self-Management
- Social Awareness
- Relationship Skills
- Responsible Decision-Making

## Instructional Plan

### Pre-Assessment and Reflection

<b>Pre-Assessment</b>		<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>	

### Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT	Student Strategies	Formative Assessment	Activities and Resources	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections	
<p><b>We are learning to/that</b></p> <p><b>1.NBT.A.1 – WALT</b> count to 120</p>	Recall and apply number sequence	<ul style="list-style-type: none"> <li>• Quick Checks, Exit Tickets, Math Notebooks, Personal Math Trainer Activities, etc).</li> </ul>	<ul style="list-style-type: none"> <li>• count to 120</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce the 120 chart as a math tool</li> <li>• Count by ones to 120</li> <li>• Count by tens to 120</li> </ul>	<p><i>General and Special Education teachers will work together to provide students with the support they need as written in their individualized education plan.</i></p>

1.NBT.A.1 – <b>WALT</b> count on from any number within 120	Recall and apply number sequence	<ul style="list-style-type: none"> <li>count on from any number to 120</li> </ul>	<ul style="list-style-type: none"> <li>Practice counting on from different numbers</li> </ul>	
1.NBT.A.1 – <b>WALT</b> read numbers within 50	Identify a given number visually and recall its name.	<ul style="list-style-type: none"> <li>Represent a given number between 1 and 50 by drawing a simple picture.</li> <li>Orally name a given number.</li> </ul>	<ul style="list-style-type: none"> <li>Identify missing numbers</li> <li>Identify patterns on the 120 chart</li> </ul>	
1.NBT.A.1 – <b>WALT</b> write numbers within 50	Visualize a given number.	<ul style="list-style-type: none"> <li>Fill in missing numbers on a 120 number chart (within 50)</li> </ul>	<ul style="list-style-type: none"> <li>Write in missing numbers on the 120 chart</li> </ul>	
1.NBT.A.1 – <b>WALT</b> represent up to 50 objects with a written number	Count a set of objects and identify the corresponding number.	<ul style="list-style-type: none"> <li>Count a set of objects and write a number to represent each group.</li> </ul>	<ul style="list-style-type: none"> <li>Count and record the number of objects in a “mystery bag”.</li> </ul> <p><u>Virtual 120 Chart</u></p> <p><u>120 Number Board</u></p> <p><u>Counting to 120 Video</u></p> <p><i>Go Math Lessons: 6.1, 6.2</i></p>	
1.NBT.B.2 – <b>WALT</b> 10 can be thought of as a bundle of ten ones called a “ten”	Count and organize objects in groups of ten.	<ul style="list-style-type: none"> <li>Use objects to create bundles of ten.</li> </ul>	<ul style="list-style-type: none"> <li>Introduce base ten blocks</li> <li>Group ones (units) into groups of ten and exchange each [group of 10] for one ten (rod).</li> </ul>	
1.NBT.B.2 – <b>WALT</b> the numbers 11 to 19 are made	Create a model of numbers 11 through 19	<ul style="list-style-type: none"> <li>Draw or make a</li> </ul>	<ul style="list-style-type: none"> <li>Use different ways to</li> </ul>	

<p>up of one ten and one, two, three, four, five, six, seven, eight, or nine ones</p>	<p>using a full ten frame and extra ones.</p>	<p>model to show the numbers 11 through 19 as tens and ones</p>	<p>write a number as tens and ones</p> <ul style="list-style-type: none"> <li>Show a number as tens and ones using objects, pictures, and numbers</li> <li>Model and name groups of ten using objects, pictures, and numbers</li> <li>Group cubes to show a number as tens and ones</li> <li>Group objects to show numbers as tens and ones</li> <li>Make a model to show numbers in different ways</li> </ul> <p><u>Unifix Cubes</u></p> <p><u>Base Ten</u></p> <p><u>Didax Base Ten Blocks</u></p> <p><u>Hand2Mind Number and Operations in Base Ten Resource</u></p> <p><i>Go Math Lessons: 6.3, 6.4, 6.5, 6.6, 6.7, 6.8</i></p>	
<p>1.OA.A.1 – WALT represent a word problem using objects, drawings, or equations using a symbol for the unknown</p>	<p>Read a word problem and use manipulatives, drawings, models, and equations to “act out” the story to determine the best way to solve.</p>	<ul style="list-style-type: none"> <li>Use pictures, drawings, or symbols to identify the unknown in a given word problem.</li> </ul>	<ul style="list-style-type: none"> <li>Use pictures to show adding to or taking from</li> <li>Make a model to show adding to or taking from</li> <li>Make a model to show putting together or taking apart</li> <li>Make a model to solve addition or subtraction problems</li> <li>Show all the ways to make a number</li> <li>Use pictures to compare and subtract</li> </ul>	
<p>1.OA.A.1 – WALT solve addition and subtraction word problems within 10 involving</p>				

<p>situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions</p>			<ul style="list-style-type: none"> <li>• Use models to compare and subtract</li> <li>• Act out a problem to solve it</li> <li>• Make a model to determine whether to add or subtract</li> <li>• Choose an operation</li> <li>• Sort Addition and Subtraction Math Stories</li> </ul> <p><u>Red/Yellow Counters in a Ten Frame</u></p> <p><u>Counters</u></p> <p><u>Unifix Cubes</u></p> <p><u>Hands2Mind Operations and Algebraic Thinking Resource</u></p> <p><i>Go Math Lessons: 1.1, 1.2, 1.3, 1.4, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8</i></p>	
<p><b>1.OA.C.5</b> – <b>WALT</b> relate counting to addition</p>	<p>Use TouchPoints on numbers or a number line to count on.</p>	<ul style="list-style-type: none"> <li>• Solve addition problems using the “count on” strategy (Touchpoints, Number Line, etc).</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce counting on with TouchPoints</li> <li>• Solve addition number sentences by using TouchPoints to count on 1, 2, or 3.</li> <li>• Introduce counting on using a number line.</li> <li>• Solve addition number sentences by counting on 1, 2, or 3 more on a number line.</li> <li>• Count on to add.</li> </ul> <p><u>Ten Frame and Counters</u></p> <p><u>Didax Number Line</u></p>	



		<p><u>Printable TouchLines</u>  <u>Hand2Mind Operations and Algebraic Thinking Resource</u>  <i>GoMath Lessons: 3.2</i></p>	
<p><b>1.OA.C.5 – WALT</b> relate counting to subtraction</p>	<p>Use TouchPoints on numbers or a number line to count back.</p>	<ul style="list-style-type: none"> <li>Solve subtraction problems using the “count on” strategy (Touchpoints, Number Line, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Solve subtraction number sentences by using TouchPoints to count on 1, 2, or 3.</li> <li>Solve subtraction number sentences by counting back 1, 2, or 3 on a number line.</li> <li>Count back to subtract</li> </ul> <p><u>Didax Number Line</u>  <u>Printable TouchLines</u>  <u>Hand2Mind Operations and Algebraic Thinking Resource</u>  <i>Go Math Lessons: 3.2, 4.1</i></p>
<p><b>1.OA.B.3 – WALT</b> apply the commutative and identity properties as strategies to add and subtract</p>	<p>Identify the parts and whole in an equation and recognize the relationship between addition and subtraction.</p>	<ul style="list-style-type: none"> <li>Use commutative and identity properties to add and subtract given equations.</li> </ul>	<ul style="list-style-type: none"> <li>Use pictures, models, objects, and drawings to demonstrate how adding zero to any number produces a sum that is the same as that number.</li> <li>Add 0</li> <li>Use pictures, models, objects, and drawings to demonstrate how changing the order of addends does not change the sum.</li> <li>Add numbers in any order</li> <li>Use pictures, models, objects, and drawings to</li> </ul>

			<p>demonstrate how one can group three addends in different ways and still get the same sum.</p> <ul style="list-style-type: none"> <li>Add three addends with and without manipulatives</li> </ul> <p>Hand2Mind Operations and Algebraic Thinking Resource</p> <p><i>Go Math Lessons: 1.5, 1.6, 3.1, 3.10, 3.11</i></p>	
<p><b>1.OA.D.7 – WALT</b> an equal sign means both sides of the equal sign have the same value in an addition or subtraction equation within 10</p>	<p>Identify the value of each side of the equal sign in an equation and recognize whether they are the same [value].</p>	<ul style="list-style-type: none"> <li>Identify equations that represent the same value on either side of the equal sign.</li> </ul>	<ul style="list-style-type: none"> <li>Introduce and explain the meaning of the equal sign.</li> <li>Use a scale and connecting cubes to show that both sides of the equal sign are the same.</li> <li>Represent both sides of the equal sign using rods and units to show balance.</li> <li>Represent both sides of the equal sign by drawing a picture.</li> <li>Decide if a number sentence is true or false</li> </ul> <p><u>Number Balance</u></p> <p>Math Balance</p> <p><i>Go Math Lessons: 5.9</i></p>	
<p><b>1.OA.D.7 – WALT</b> determine if equations involving addition and subtraction within 10 are true or false</p>	<p>Draw pictures to represent an addition or subtraction sentence to prove the value is true or false.</p>			
<p><b>1.OA.D.8 – WALT</b> determine the unknown number that makes an equation involving addition or subtraction within 10 true**</p>	<p>Recall known facts to identify a missing number in an equation. Identify the parts and whole in an equation.</p>	<ul style="list-style-type: none"> <li>Fill in missing numbers in equations to show both sides of the equal sign have the same value.</li> </ul>	<ul style="list-style-type: none"> <li>Introduce related facts to connect related facts to previously taught models (bar models, part-part-whole models, etc).</li> <li>Use related facts to find</li> </ul>	

	Count up from a given part to the whole to determine an unknown part.		unknown numbers Addends of Ten Activity (with missing addend cards) <u>Hand2Mind Operations and Algebraic Thinking Resource</u> <i>Go Math Lessons: 2.7, 5.5, 5.6</i>	
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**Benchmark Assessment 1**

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

**Benchmark Assessment 2**

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

**Summative Assessments (add rows as needed)**

<b>Summative Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

**Interdisciplinary Connections**

<b>Interdisciplinary Connections</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

## Unit 1 - Module B

### Unit Title: Mathematics – Strategies for Addition and Subtraction – Unit 1 – Module B

Grade level: Grade 1

Timeframe: Marking Period 1

#### Rationale

#### *Grade 1 – Strategies for Addition and Subtraction – Unit 1*

The primary focus of Unit 1 is addition and subtraction. Building upon the counting sequence mastered in Kindergarten, learners begin counting to 120, reading and writing numbers through 50 and representing objects with a written number. Learners build place value understanding as they learn that a ten is a bundle of ten ones and can be used to compose numbers 11 through 19.

An important conceptual understanding for their future work in mathematics is the meaning of the equal sign. Learners use this understanding to determine if addition and subtraction equations are true or false. Learners solve word problems using various strategies for addition and subtraction and use equations with an unknown in any position.

Introducing composite two-dimensional shapes is essential for expanding geometric skills and concepts from kindergarten. Grade 1 learners move beyond describing objects in the environment using two-dimensional shapes to composing new shapes from composite two-dimensional shapes.

Note: Double asterisks (\*\*) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

#### Essential Questions

## Standards

### Standards (Taught and Assessed):

**1.G.A.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

**Key:** Major Cluster Supporting Cluster Additional Cluster

### Highlighted Career Ready Practices and 21<sup>st</sup> Century Themes/Skills

- 9.1.4.A.2 Evaluate available resources that can assist in solving problems.
- 9.1.4.A.5 Apply critical thinking and problem-solving skills in classroom and family settings.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.

### Social-Emotional Learning Competencies

- Self-Awareness
- Self-Management
- Social Awareness
- Relationship Skills
- Responsible Decision-Making



**Key:** Major Cluster Supporting Cluster Additional Cluster



## Instructional Plan

### Pre-Assessment and Reflection

Pre-Assessment	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections

### Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

SLO – WALT	Student Strategies	Formative Assessment	Activities and Resources	Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections
<p><b>1.G.A.2 – WALT</b> a composite shape is a shape built by combining other shapes</p>	<p>Visualize and identify individual shapes within a bigger composite shape.</p>	<ul style="list-style-type: none"> <li>Identify two dimensional shapes and identify composite shapes.</li> </ul>	<p>Introduce pattern blocks</p> <p>Introduce shapes and their attributes</p> <p>Explain that composite shapes are made up of individual shapes.</p> <p>Describe shape attributes using formal geometric language.</p> <p>Introduce and model tangram activities.</p> <p><u>Virtual Pattern Blocks</u></p> <p><u>Mathigon Tangrams</u></p> <p><u>ABCYa Tangrams</u></p> <p><u>Hand2Mind Geometry Activities</u></p> <p><i>GoMath Lesson 12.3, 12.4, 12.5, 12.6, 12.7</i></p>	<p><i>General and Special Education teachers will work together to provide students with the support they need as written in their individualized education plan.</i></p>

<p><b>1.G.A.2 – WALT</b> compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape</p>	<p>Use pattern blocks to create a model of a given composite shape.</p>	<ul style="list-style-type: none"> <li>Identify and name the two dimensional shapes that make up a composite shape.</li> <li>Use two dimensional shapes to create a given composite shape.</li> </ul>	<ul style="list-style-type: none"> <li>Put two-dimensional shapes together to make new two-dimensional shapes</li> <li>Compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way.</li> <li>Combine two-dimensional shapes to make new shapes</li> <li>Use pattern blocks and activity cards to create composite shapes.</li> <li>Combine pattern blocks to form composite shapes.</li> </ul>	
<p><b>1.G.A.2 – WALT</b> compose new shapes from composite shapes</p>	<p>Visualize and use pattern blocks to identify two-dimensional and composite shapes.</p>	<ul style="list-style-type: none"> <li>Combine composite shapes to create new shapes.</li> </ul>	<ul style="list-style-type: none"> <li>Continue composite shapes to form a pattern or a new shape.</li> <li>Use the <i>act it out</i> strategy to make new shapes from combined shapes</li> <li>Find shapes in other shapes</li> <li>Take apart two-dimensional shapes</li> </ul> <p><u>Virtual Pattern Blocks</u></p> <p><u>Shape Tool</u></p> <p><u>Mathigon Tangrams</u></p> <p><u>ABCYa Tangrams</u></p>	



		<u>Hand2Mind Geometry</u> <u>Activities</u> <i>GoMath Lesson 12.3, 12.4, 12.5,</i> <i>12.6, 12.7</i>	
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**Benchmark Assessment 1**

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

**Benchmark Assessment 2**

<b>Benchmark Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

**Summative Assessments (add rows as needed)**

<b>Summative Assessment</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>

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**Interdisciplinary Connections**

<b>Interdisciplinary Connections</b>	<b>Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections</b>