

# TOWNSHIP OF UNION PUBLIC SCHOOLS



# Grade K 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 – Number Concepts and Counting to 10 – Unit 1 – Module A**

**Grade level: Kindergarten**

**Timeframe: Marking Period 1**

### Rationale

#### *Kindergarten – Number Concepts and Counting to 10 – Unit 1*

Unit 1 focuses on counting and the relationship between numbers and quantities. Learners count by ones up to ten and say the number name for each object when counting up to ten objects. They come to understand that, when counting, the last number tells the total number of objects regardless of their order. Learners represent numbers of objects, including the absence of objects (0), with written numbers and answer 'how many' questions about a group of objects arranged in lines, rectangular, arrays, and circles.

Also in this unit, learners use their counting experiences to develop an understanding of addition and subtraction within 5. They represent addition and subtraction within 5 using multiple strategies including using objects, fingers, mental images, drawings, sounds, acting out, verbal explanations, expressions or equations.

Throughout the unit, learners use concrete objects to count and to represent addition and subtraction. These concrete objects support learners' development of spatial reasoning. They recognize and correctly name two-dimensional shapes regardless of the orientation and size of objects. By describing objects in the environment using names of shapes and describing the relative positions of objects, learners extend their spatial reasoning skills.

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):**

- K.CC.A.1** Count to 100 by ones and by tens.
- K.CC.A.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.A.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
- K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
  - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
- K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
  - b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
- K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
  - c. Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.5** Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
- K.OA.A.1** Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

**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 ■

## Instructional Plan

### Pre-Assessment and Reflection

<b>Pre-Assessment</b>	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>K.CC.A.1 - WALT</b> count by ones to 10</p>	<ul style="list-style-type: none"> <li>Think about the last number said</li> </ul>	<ul style="list-style-type: none"> <li>Exit slip- count to a specific number of objects within 10- count, write, represent.</li> </ul>	<p>Students will learn that numbers have value amounts and are different then letters.</p> <p>Use manipulatives to show numbers 0-10</p> <p>Recognize and state the last number said when counting (the last number said tells the total number of objects).</p> <p>Use a number line to count to 10.</p>	<p>General and Special Education teachers will work together to provide students with the support they need as written in their individualized education plan. (IEP)</p>
<p><b>K.CC.A.3 - WALT</b> write numbers 0 to 10</p>	<ul style="list-style-type: none"> <li>Students will use visuals to remember each number</li> </ul>		<p>Trace the form of numbers 0-10</p> <p>Number songs/poems</p> <p>Shaving cream on desk to write numbers</p> <p>Write the last number said.</p> <p>Literature "Pancakes for All" Childrens will read the</p>	
<p><b>K.CC.A.3 - WALT</b> represent a number of objects with a written number from 1 through 10</p>	<ul style="list-style-type: none"> <li>Remember last number said</li> <li>Count the number of objects in a set and write the written number.</li> </ul>	<ul style="list-style-type: none"> <li>Draw to show what you know about the number sets 1-10. Tell a friend about your drawing.</li> </ul>		

			<p><i>book and count kittens. Go Math Chapter 1 and 3, 4.1 and 4.2</i></p>	
<p><b>K.CC.B.4 - WALT</b> when counting, each object is paired with only one number name</p>	<ul style="list-style-type: none"> <li>Count and write the number under each picture.</li> <li>Cross off objects as your count.</li> </ul>	<ul style="list-style-type: none"> <li>Exit slip- Match objects to numbers</li> </ul>	<p>Count objects and write the number value. Utilize Go math and interactive lessons to count objects. <i>Literature- Read the Red Caboose and count the number of toy trains. Go Math Chapters 1, 3, 4.1, 4.2</i></p>	
<p><b>K.CC.B.4.A – WALT</b> say the number name for each object in a group up to 10 objects when counting</p>	<ul style="list-style-type: none"> <li>Count and write the number under each picture.</li> </ul>	<ul style="list-style-type: none"> <li>Quick checks</li> </ul>	<p>Count out loud for objects in a group. <i>Go Math Lessons- Chapters 1. 3 and 4.1 and 4.2</i></p>	
<p><b>K.CC.B.4.B – WALT</b> when counting a set of objects up to 10, the last number tells the total number of objects</p>	<ul style="list-style-type: none"> <li>Use last number said strategy</li> </ul>	<ul style="list-style-type: none"> <li>Personal math trainer</li> </ul>	<p>Have students do different activities for last number said (shout the number, whisper, say like a monster, etc). <i>Lesson 1.4</i></p>	
<p><b>K.CC.B.5 – WALT</b> count out the correct number of objects when given a number up to 10</p>	<ul style="list-style-type: none"> <li>Count and write the number under each picture.</li> </ul>	<ul style="list-style-type: none"> <li>Count the number of objects orally</li> </ul>	<p>Use manipulatives to show a number. <i>Chapters 1. 3 and 4.1, 4.2</i></p>	
<p><b>K.CC.B.4.C– WALT</b> when given a number between 0 and 10, the next number is one larger than the given number</p>	<ul style="list-style-type: none"> <li>Have students circle the larger number.</li> </ul>	<ul style="list-style-type: none"> <li>Exit ticket- use a number line to find the larger number of a given number.</li> </ul>	<p>Use a number line to see the numbers. Identify the numbers get larger as they go on. Have students count objects and find the larger number. <i>Go Math Chapter 2 and</i></p>	

<p><b>K.CC.A.2 - WALT</b> count on from a number other than 1 to 10</p>	<ul style="list-style-type: none"> <li>Use concrete models drawings and counters to explore the concept of counting.</li> </ul>	<p>4.4 Quick checks Lesson</p>	<p>Count on from a certain number. Go Math Chapter 4</p>	
<p><b>K.CC.B.4.B - WALT</b> after counting a set of objects up to 10, the total is the same even when the arrangement or order is changed</p>	<ul style="list-style-type: none"> <li>Have students cross off objects as they count them.</li> </ul>	<p>Exit slip- have students count the number of objects in different arrangements (Go Math Lesson 3.6 as an example).</p>	<p>Place a counter on each object when counting. Then rearrange the counters and count again. Use counters when counting objects- then show the same number matched up. Go Math chapter 4</p>	
<p><b>K.CC.B.5 - WALT</b> answer "how many?" questions about a group of objects up to 10 in a line, rectangular array, and circle by counting</p>	<ul style="list-style-type: none"> <li>Use a ten frame to know one row is 5 and two rows is 10.</li> </ul>		<ul style="list-style-type: none"> <li>Model a 10 frame. One row is 5 two rows is 10.</li> <li>Use egg cartons and manipulative to show numbers 1-10.</li> </ul>	
<p><b>K.CC.A.3 - WALT</b> zero represents a count of no objects</p>	<ul style="list-style-type: none"> <li>Students know that 0 is represented as no objects or objects that are taken away.</li> </ul>	<p>Have students draw what they know about the number 0 and explain their drawing to a friend.</p>	<p>Read "Zero my hero" and identify 0 means none. Write the number name and written numeral.</p>	
<p><b>K.OA.A.1 - WALT</b> represent addition within 5 in a variety of ways (e.g., objects, fingers, mental images, drawings, sounds, acting out, verbal explanations, expressions or equations)</p>	<ul style="list-style-type: none"> <li>Use snap cubes to show different combinations to add within 5.</li> </ul>	<ul style="list-style-type: none"> <li>Exit slip- show two ways to make 5.</li> </ul>	<p>Use counters to add two numbers together Use a beaded number line to add numbers Use snap cubes to add numbers together Children can add themselves together to represent addition Trace the plus sign and learn it means add together.</p>	

<p><b>K.OA.A.1 – WALT</b> represent subtraction within 5 in a variety of ways (e.g., objects, fingers, mental images, drawings, sounds, acting out, verbal explanations, expressions or equations)</p>	<ul style="list-style-type: none"> <li>• <i>Circle and cross out the number being taken away.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Quick check - Lesson 6.5</i></li> </ul>	<p>5.8 <i>Go Math Lessons 5.1-5.8</i></p> <p><i>Use the act out strategy to subtract within 5. Find the number that is left. Students use counters and take away to find what is left. Trace the take away symbol and learn the symbol means take away. Go Math lessons 6.1-6.5.</i></p>	
--	--	---	--	--

**Benchmark Assessment 1**

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

**Benchmark Assessment 2**

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

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

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



--	--

**Interdisciplinary Connections**

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

**Unit 1 Module B**

**Unit Title: Math – Number Concepts and Counting to 10 – Unit 1 – Module B**

**Grade level: Kindergarten**

---

**Timeframe:**

---

**Rationale**

---

*Kindergarten – Number Concepts and Counting to 10 – Unit 1*

Unit 1 focuses on counting and the relationship between numbers and quantities. Learners count by ones up to ten and say the number name for each object when counting up to ten objects. They come to understand that, when counting, the last number tells the total number of objects regardless of their order. Learners represent numbers of objects, including the absence of objects (0), with written numbers and answer 'how many' questions about a group of objects arranged in lines, rectangular, arrays, and circles.

Also in this unit, learners use their counting experiences to develop an understanding of addition and subtraction within 5. They represent addition and subtraction within 5 using multiple strategies including using objects, fingers, mental images, drawings, sounds, acting out, verbal explanations, expressions or equations.

Throughout the unit, learners use concrete objects to count and to represent addition and subtraction. These concrete objects support learners' development of spatial reasoning. They recognize and correctly name two-dimensional shapes regardless of the orientation and size of objects. By describing objects in the environment using names of shapes and describing the relative positions of objects, learners extend their spatial reasoning skills.

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):**

**K.G.A.1** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of, behind, and next to.*

Note: shapes include squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres.

**K.G.A.2** Correctly name shapes regardless of their orientations or overall size.

Note: shapes include squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres.

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

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

- 9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.
- 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>K.G.A.1 – WALT</b> identify squares, circles, triangles, rectangles, and hexagons</p>	<ul style="list-style-type: none"> <li>Visualize and identify the different shapes.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name two dimensional shapes.</li> </ul>	<p>Trace shapes and draw shapes. Activate prior knowledge by naming objects at home and school and what shapes they are. Go Math Lessons 9.1, 9.3, 9.5, 9.7, 9.10</p>	<p>General and Special Education teachers will work together to provide students with the support they need as written in their individualized education plan. (IEP)</p>
<p><b>K.G.A.1 – WALT</b> describe the attributes of squares, circles, triangles, rectangles, and hexagons</p>	<ul style="list-style-type: none"> <li>Count the number of sides</li> </ul>	<ul style="list-style-type: none"> <li>Describe the attributes of each shape.</li> </ul>	<p>Draw to join shapes. Identify how many sides (vertex) or curves each shape has. Lessons 9.2, 9.4, 9.6, 9.8, 9.10</p>	
<p><b>K.G.A.1 – WALT</b> describe objects in the environment using names of shapes</p>	<ul style="list-style-type: none"> <li>Be able to identify and visualize all shapes</li> </ul>	<p>Show and Tell- Bring in an object of a certain shape. (Circle day).</p>	<ul style="list-style-type: none"> <li>Name objects around the classroom of each shape.</li> <li>Draw pictures of a given shape.</li> <li>Go Math 9.11</li> </ul>	
<p><b>K.G.A.1 – WALT</b> describe the positions of objects in the environment using words such as above, below, beside, in front of, behind, and next to</p>	<ul style="list-style-type: none"> <li>Know vocabulary and be able to demonstrate what it means.</li> </ul>	<ul style="list-style-type: none"> <li>Use cubes to describe their position of colors.</li> </ul>	<p>Working with a partner, children list shapes that are above and below them in the classroom Make a cube tower with two different color cubes. Use words to tell about the cubes. Where are the red cubes? They are above the blue cubes.</p>	

<p><b>K.G.A.2 – WALT</b> the name of a shape does not change when orientation and size change</p>	<ul style="list-style-type: none"> <li>Students will know the attributes of the a shape to identify the shape no matter orientation and size.</li> </ul>	<ul style="list-style-type: none"> <li>Exit slip- Identify and pick out all of the shape selected (Example: 9.5 Question 1).</li> </ul>	<p>Go Math 10.8-10.10</p> <p>Examples of questions= Go Math Lesson 9.3 Question 1 (Squares are different sizes and orientations). Draw shapes of different sizes to make a picture. (Different size squares to make a picture).</p>	
<p><b>K.G.A.2 – WALT</b> correctly name squares, circles, triangles, rectangles and hexagons of different sizes and orientations</p>	<ul style="list-style-type: none"> <li>Know the vocabulary about shapes- a triangle has 3 sides, a square has 4 equal sides.</li> </ul>	<ul style="list-style-type: none"> <li>Color a selected shape in a picture (Lesson 9.5 Question 2).</li> </ul>	<ul style="list-style-type: none"> <li>In a mosaic identify the different shapes.</li> <li>Sort pattern blocks</li> </ul>	

**Benchmark Assessment 1**

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

**Benchmark Assessment 2**

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

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

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

**Interdisciplinary Connections**

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