TOWNSHIP OF UNION PUBLIC SCHOOLS

Mathematics Grade K
Curricular Frameworks Units 1 & 2

Curriculum Guide

2016

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.

Statement of District Goals

- **Develop reading, writing, speaking, listening, and mathematical skills.**
- **Develop a pride in work and a feeling of self-worth, self-reliance, and self-discipline.**
- **Acquire and use the skills and habits involved in critical and constructive thinking.**
- **Develop a code of behavior based on moral and ethical principles.**
- **Work with others cooperatively.**
- **Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.**
- **Acquire a knowledge and understanding of the physical and biological sciences.**
- **Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.**
- **Appreciate and understand literature, art, music, and other cultural activities.**
- **Develop an understanding of the historical and cultural heritage.**
- **Develop a concern for the proper use and/or preservation of natural resources.**
- **Develop basic skills in sports and other forms of recreation.**

Pacing Guide

Content

Unit 1	**September, October, November**
Unit 2	**December, January**
Unit 3	
Unit 4	

Unit 1 Kindergarten: Curricular Framework		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
■ K.CC.A.1. Count to 100 by ones and by tens. *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 10 Students are able to: • count orally by ones up to 10. Learning Goal 1: Count by ones up to 10.
■ 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). *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): • Represent the number of objects with a numeral. Students are able to: • write numbers from 0 to 10. Learning Goal 2: Represent the number of objects with a written numeral up to 10.
■ K.CC.B.4. Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.B.4a.When counting objects, say the number names in	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Objects can be counted in any order. Each object is counted once (one-to-one correspondence). • The next number name in counting is always one greater than the previous number.

Unit 1 Kindergarten: Curricular Framework		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
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.4b.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.4c.Understand that each successive number name refers to a quantity that is one larger.		• The last number name said tells the number of objects counted. Students are able to: • say number names in the standard order. • pair each object with one number name (one-to-one correspondence). • count to tell the number of objects. • count objects arranged in any order. • identify the last number named as the number of objects counted. Learning Goal 3: Assign an ascending number name for each object in a group. Learning Goal 4: State the last number named as the number of counted objects in the set. Learning Goal 5: Identify the next number name in counting as one greater than the previous number.
■ 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.*(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. • count to tell the number of objects when asked *how many?* questions . • given a number from 1-10, count out that many object. Learning Goal 6: Answer *how many?* questions about groups of up to 10 objects when arranged in a line, rectangular array or circle.

Unit 1 Kindergarten: Curricular Framework		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
		Learning Goal 7: Answer *how many?* questions about groups of up to 5when arranged in a scattered configuration.
■ 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.*(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Understand addition as putting together and adding to. • Understand subtraction as taking apart and taking from. Students are able to: • create addition events with objects (up to 10). • create addition events with drawings and sounds (up to 10). • create addition events by acting out situations and with verbal explanations. Learning Goal 8: Create addition events with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations for sums up to 10.
□ K.MD.B.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count*(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): • Objects can be sorted based on their properties. Students will be able to: • sort objects into categories Learning Goal 9: Classify objects into given categories and count the objects in each category (up to 10 objects)
◎ 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, and next to.	MP.7 Look for and make use of structure.	Concept(s): • Shapes have names. • Positional words (above, below, besides, in front of, behind, next to) Students will be able to: • name shapes in order to describe objects in the environment.

Unit 1 Kindergarten: Curricular Framework		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
		• useterms such as *above, below, beside, in front of, behind,* and *next to* in order to describe relative positions of objects. Learning Goal 10: 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.

Township of Union Unit 1 Grade K	
School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Go Math - Show What You Know Go Math - Diagnostic Interview Task Go Math - Lesson Quick Check Go Math - Mid Chapter Checkpoint	Go Math - Chapter Review/Test Go Math - Chapter Test Go Math - Performance Assessment Task

Focus Mathematical Concepts				
	Chapter 1	Chapter 2	Chapter 3	Chapter 4
Prerequisite skills	• Explore numbers to 5 • Match numbers to sets up to 5	• One to One correspondence • model numbers 0 to 5 • write numbers 0 to 5	• Explore numbers to 5 • Compare numbers to 5 • Write numbers to 5	• Draw objects to 9 • Write numbers to 9
Common Misconceptions	• students do not connect the number name/symbol to a model • students have difficulty tracing/writing numerals • students count in succession but do not assign number names to objects • students have difficulty with sequential order	• students may not identify the words *greater than, less than or same* • students may not identify the sets that are *greater than, less than* or *the same as* • students may not identify the number that is *greater than* or *less than*	• students may not know number words • students may have difficulty matching number to set • students may have difficulty counting on a ten frame • students may skip items or count items more than once	• students may record numbers incorrectly • students may count out of sequence • students may have difficulty making number comparisons • students may not understand how to count forward
Number Fluency	Add/Subtract within 5	Add/Subtract within 5	Add/Subtract within 5	Add/Subtract within 5

District/School Tasks	District/School Primary and Supplementary Resources
Exploring Number s and Matching Sets Center Activities: • http://kindertribe.blogspot.com/2015/07/what-worked-well-wednesday-july-29th_29.html • http://fun-a-day.com/summer-math-preschool-ice-cream-theme/?utm_content=buffer64c86&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer • http://www.allkidsnetwork.com/crafts/numbers/octopus-counting-craft.asp?utm_source=EmailDirect.com&utm_medium=Email&utm_campaign=Newsletter_Creative1_Send-2-15-14+Campaign • https://www.etsy.com/listing/278166474/apple-seed-counting-pdf-pattern-felt?utm_source=OpenGraph&utm_medium=PageTools&utm_campaign=Share • https://www.teacherspayteachers.com/Product/OWL-Numbers-FREE-1413729 • http://www.themeasuredmom.com/marshmallow-math/ Writing Numbers Center Activities: • http://www.theprintableprincess.com/2015/08/developing-fine-motor-skills.html?m=1 • http://primarygraffiti.blogspot.com/2013/01/freebie-number-formation-practice.html • http://www.fantasticfunandlearning.com/play-dough-writing-tray.html?utm_content=buffer7f487&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer Greater/ Less Than/ Same As Center Activities: • http://justaskjudyteachingresources.blogspot.com/2016/05/how-to-teach-concepts-of-more-and-less.html • http://www.applesandabcs.com/2012/01/ice-cube-tray-math.html • http://kfundamentals.blogspot.com/2013/04/more-less-and-equal.html	Go Math - Chapter Resources • Reteach • Enrich Go Math - Digital Personal Math Trainer Go Math - Math On the Spot Go Math - iTools Go Math - HMH Mega Math iReady - Math

Instructional Best Practices and Exemplars
Go Math - Grab-and-Go Differentiated Centers Kit Go Math - Professional Development videos K-6 Math Literature List - http://everydaymath.uchicago.edu/teachers/k/literature-list/ Math and Literature Idea Bank - http://mathcats.org/ideabank/mathandliterature.html Math Resources - http://www.hubbardscupboard.org/math-resources **Math literature**, links and resources for students, parents and teachers - http://letsreadmath.com/math-and-studentss-literature/ **Kindergarten math activities** aligned with the **Common Core** State Standards - http://www.k-5mathteachingresources.com/kindergarten-math-activities.html Resources & activities for replacing worksheets with real, meaningful situations - http://www.kindergarten-lessons.com/ Educational Computer Games and Apps for kids - www.abcya.com

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
K.CC.A.1. Count to 100 by ones and by tens.*(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 50 Students are able to: • count orally by ones up to 50. • count orally by tens up to 50.

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
		Learning Goal 1: Count to 50 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).		Concept(s): No new concept(s) introduced Students will be able to: • count orally by ones up to 50, beginning at any number. Learning Goal 2: • Count forward up to 50 starting from numbers other than one.
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).*(benchmarked)	MP. 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): • The number of objects can be represented by a numeral. Students are able to: • write numbers from 0 to 20. Learning Goal 3: Represent a number of objects with a written numeral 0 to 20.
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.*(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP. 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure.	Concept(s): • Understand addition as putting together and adding to. • Understand subtraction as taking apart and taking from. Students are able to: • create subtraction and addition events with objects (up to 10). • create subtraction and addition events with drawings and sounds (up to 10).

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
	MP.8 Look for and express regularity in repeated reasoning.	• create subtraction and addition events by acting out situations and with verbal explanations. Learning Goal 4: Create addition and subtraction events with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations (up to 10).
■ K.OA.A.2. Solve addition and subtraction word problems, and add and subtract within 10, *e.g., by using objects or drawings to represent the problem.*	MP.1 Make sense of problems and persevere in solving them. MP. 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): No new concept(s) introduced Students will be able to: • use objects and drawings to represent addition and subtraction. • add and subtract within 10. Learning Goal 5:Use objects or drawings to represent and solve addition and subtraction word problems (within 10).
■ 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.*(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. • count to tell the number of objects when asked "how many?" questions. • given a number from 1-20, count out that many object. Learning Goal 6:Answer *how many?* questions about groups of up to 20 objects when arranged in a line, rectangular array or circle. Learning Goal 7: Answer *how many?* questions about groups of up to 10 when arranged in a scattered configuration .

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
■ K.CC.C.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group *e.g. by using matching and counting strategies.*	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Different groups can have different numbers of objects. • Numbers of objects can be compared using phrases such as *greater than, less than* and *equal to.* Students will be able to: • compare the number of objects (up to 10) in two groups. • identify whether the number of objects in one group is greater than, less than, or equal to to the number of objects in another group. Learning Goal 8:Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (groups of up to 10 objects).
■ K.CC.C.7. Compare two numbers between 1 and 10 presented as written numerals.	MP.2 Reason abstractly and quantitatively.	Concept(s): • Number names and the count sequence • The next number name in counting is always one greater than the previous number. • Count to tell the number of objects. Students will be able to: • compare numbers (up to 10)written as numerals. Learning Goal 9: Compare numbers (up to 10) written as numerals.
■ K.OA.A.5. Demonstrate fluency for addition and subtraction within 5. (by the end of Kindergarten).*(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s):No new concept(s) introduced Students will be able to: • add within 5 with accuracy and efficiency .

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
		Learning Goal 10:Use mental math strategies to solve addition facts within 5.

Township of Union Unit 1 Grade K	
School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Go Math - Show What You Know Go Math - Diagnostic Interview Task Go Math - Lesson Quick Check Go Math - Mid Chapter Checkpoint	Go Math -Chapter Review/Test Go Math - Chapter Test Go Math - Performance Assessment Task

Focus Mathematical Concepts		
	Chapter 5	Chapter 6
Prerequisite skills	• students understand *More* • students can compare numbers to 10	• students understand *Less* • students can compare numbers to 10
Common Misconceptions	• students miscount on a ten frame, counting rows instead of colors • students write incorrect numbers for the sets • students add incorrectly • students add the given addend and the sum	• students do not understand the difference between the plus symbol and the minus symbol • students do not understand how many in all or to begin • students may add instead of subtract • students confuse the set being taken away with the set that remains

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
	• students write one of the addends as the sum • students may not understand that different numbers pairs can be used for the same sum	• students may have difficulty showing subtraction with objects • students may have difficulty with an unknown starting number
Number Fluency	Add/Subtract within 5	Add/Subtract within 5

District/School Tasks	**District/School Primary and Supplementary Resources**
Addition/ Subtraction Center Activities: • https://www.pinterest.com/pin/39054721746141027/ • https://www.pinterest.com/pin/115264071687708036/ • https://www.pinterest.com/pin/235313149256895525/ • https://www.pinterest.com/pin/205758276704746246/ • https://www.pinterest.com/pin/283445370276967305/ • https://www.pinterest.com/pin/317996423669565124/ • https://www.pinterest.com/pin/523895369124495875/ • https://www.pinterest.com/pin/24840235421277190/	Go Math - Chapter Resources: Reteach/Enrich • Reteach • Enrich Go Math - Digital Personal Math Trainer Go Math - Math On the Spot Go Math - iTools Go Math - HMH Mega Math iReady - Math

Instructional Best Practices and Exemplars
Go Math - Grab-and-Go Differentiated Centers Kit Go Math - Professional Development videos

Unit 2 Kindergarten: Curricular Framework		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
Math Blaster Addition and Subtraction Worksheets - http://www.mathblaster.com/ Free Math Worksheets - www.softschools.com Math Resources - http://www.hubbardscupboard.org/math-resources **Kindergarten math activities** aligned with the **Common Core** State Standards - http://www.k-5mathteachingresources.com/kindergarten-math-activities.html Resources & activities for replacing worksheets with real, meaningful situations - http://www.kindergarten-lessons.com/ Educational Computer Games and Apps for kids - www.abcya.com		

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Mathematics Grade 1
Curricular Frameworks Units 1 & 2

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- **Develop a code of behavior based on moral and ethical principles.**
- **Work with others cooperatively.**
- **Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.**
- **Acquire a knowledge and understanding of the physical and biological sciences.**
- **Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.**
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- **Develop an understanding of the historical and cultural heritage.**
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Pacing Guide

Content

Unit 1	**September, October, November**
Unit 2	**December, January**
Unit 3	
Unit 4	

Unit 1 Grade 1		
Curricular Framework Mathematics		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
■ 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.* *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Symbol (unknowns) can be in any position. Students are able to: • add, using objects and drawings, to solve word problems involving situations of adding to and putting together. • subtract, using objects and drawings, to solve world problems involving situations of taking from and taking apart. Learning Goal 1: Use addition and subtraction within 10 to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.
■ 1.OA.B.3. Apply properties of operations as strategies to add and subtract. *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)* *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Knowing 4 + 3 means that 3 + 4 is also known (commutative property/fact families). • When adding , the numbers need not be added in any particular order. Students are able to: • add and subtract, within 10, using properties of operations as strategies (commutative property). Learning Goal 2: Apply properties of operations (commutative property) as strategies to add or subtract within 10.

Unit 1 Grade 1		
Curricular Framework Mathematics		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
1.OA.B.4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 - 8 by finding the number that makes 10 when added to 8*	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Subtraction can be represented as an unknown-addend problem. • Finding 9 minus 3 means solving? + 3 = 9 or 3 + ? = 9 (fact families). Students are able to: • represent subtraction as an unknown addend problem. • solve subtraction problems, within 10, using unknown addends. Learning Goal 3: Solve subtraction problems, within 10, by representing subtraction as an unknown added problem and finding the unknown addend
1.OA.C.5. Relate counting to addition and subtraction (e.g., by counting 2 to add 2).	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): • Counting can be used to add and subtract. Students are able to: • count on to add. • count back to subtract. Learning Goal 4: Count on to add and count backwards to subtract to solve addition and subtraction problems within 20.
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,*	*MP.2 Reason abstractly and quantitatively.* *MP.3 Construct viable arguments and critique the reasoning of others.*	*Concept(s):The meaning of the equal sign* • *True and false statements* • *The expression can be on the right side of the equal sign (e.g. 7 = 8 – 1).* • *Both the left and right side of the equal sign may contain expressions (e.g. 5 + 2 = 1 + 4).*

Unit 1 Grade 1		
Curricular Framework Mathematics		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
4 + 1 = 5 + 2.	*MP.6 Attend to precision.* *MP.7 Look for and make use of structure.*	*Students are able to:* • *determine if addition equations are true or false.* • *determine if subtraction equations are true or false.* *Learning Goal 5: Determine if addition and subtraction equations, within 20, are true or false.*
■ 1.OA.D.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 = _.* *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: • determine the unknown number that makes an equation true. • solve addition or subtraction equations by finding the missing whole number. Learning Goal 6: Solve addition and subtraction equations, within 20, by finding the missing whole number in any position.
■ 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 *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 100 Students are able to: • count orally by ones up to 100. • count up to 100 beginning at any number less than 100. • read numerals up to 100. • write numerals up to 100. • represent a number of objects up to 100 with a written number. Learning Goal 7: Count to 100 orally, read and write numerals, and write numerals to

Unit 1 Grade 1		
Curricular Framework Mathematics		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**
		represent the number of objects (up to 100).

Township of Union Unit 1 Grade 1	
School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. • Go Math Reteach and Enrich resources • Small group instruction • Teacher facilitation and intervention during cooperative group/partner work • Differentiated math centers/Guided math activities • Exit slips • Self-checklists	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* • Go Math Mid-Chapter Checkpoint quizzes • Go Math chapter assessments • Addition and subtraction fact quizzes • Getting Ready for PARCC assessments • Benchmark assessments • Extended Constructed Response (ECR) to assess students' progress with concepts and ability to explain them

Focus Mathematical Concepts

Districts should consider listing prerequisites skills. Concepts that include a focus on relationships and representation might be listed as grade level appropriate.

Prerequisite Skills: establish number sense, count to 100, understand addition as putting together and subtracting as taking apart, fluently add and subtract within 5, add and subtract within 10, solve addition and subtraction word problems

Common Misconceptions: may not understand math vocabulary, may not correctly use the pictures or counters to find the sum, may not understand how to use a bar model to add or subtract, may subtract all instead of subtracting 0 or 0 instead of all, may not understand how to take apart to subtract, may count on by saying the starting number as the first number they count on, may have difficulty changing the order of the addends/understanding the Commutative Property of Addition, may not identify the greater addend, may count on incorrectly, may include the starting number when counting back to subtract, may count on instead of back, may incorrectly count manipulatives (counters, cubes)

Number Fluency (for grades K-5):

Grade	Required Fluencies
K	Fluently add/subtract within 5
1	Add/Subtract within 20, demonstrating fluency for addition and subtraction within 10

District/School Tasks	**District/School Primary and Supplementary Resources**
Exemplar tasks or illustrative models could be provided. • iReady online program to practice and assess math skills • Animated Math Models Skills 1-27 (concepts related to addition and subtraction) • Introduce the game Addition Bingo to practice one-digit addition • Reading activities for The Class Party and Math Club to learn to read addition and subtraction number sentences • Grab and Go activity card Sum Sentences: Orange #3 (modeling addition sentences) • Independent reading activities for Join Us to model counting to 10 • Grab and Go activity card Put it Together: Blue #3 (modeling a whole and its parts) • Reading activities for Busy Bugs to practice addition • Grab and Go activity card Back and Forth: Blue #7 (match addition sentences that show the Commutative Property of Addition) • Grab and Go activity card How Many Ways?: Purple #3 (modeling a number as the sum of two parts) • Grab and Go activity card Picture This: Blue #9 (modeling subtraction) • Grab and Go activity card Apples Away: Orange #5 (modeling subtraction sentences) • Grab and Go activity card Runaway Squares: Blue #5 (modeling subtraction problems) • Introduce the game Subtraction Slide to use as a partner activity during center time	*District/school resources and supplementary resources that are texts as well as digital resources used to support the instruction.* • Teacher and student editions for Go Math • Go Math Animated Math Models • Reteach teacher resource for intervention • Enrich teacher resource for enrichment • Go Math student workbooks • Go Math work mats • Grab and Go Center Kit resources • Decodable books, Math Concept Readers • Think Central tools for school and home/iTools • Manipulatives (counters, connecting cubes, dominoes) • Hundreds chart • Touch Math resources • iPad math apps: Math Bingo, By ABCya Successfully Learning Mathematics, Grade 1 Barnyard Math Challenge Math Challenge 1 Grade 1 Math Addition and Subtraction for Kids Math GO

• Grab and Go activity card Subtract!: Orange #9 (using subtraction to compare two sets) • Reading activities for Milk for Sale to practice subtraction facts through 10 • Introduce the game Dicky Sums and Neighborhood Sums to use as a partner activity during center time to practice and review sums to 20 • Grab and Go activity card Double Trouble: Orange #7 (modeling addition with doubles facts) • Reading activities for Doubles Fun on the Farm to practice subtraction adding equal groups to make doubles • Reading activities for Bunny Hats to practice addition • Grab and Go activity card Add with Ten: Blue #16 (modeling adding with 10) • Grab and Go activity card Make a Ten to Add: Orange #16 (review the problem-solving strategy of "making a ten") • Grab and Go activity card The Sum is the Same: Purple #16 (using different ways to make the same sum) • Grab and Go activity card Apples Away: Orange #5 (modeling subtraction sentences) • Introduce the game Under the Sea to use as a partner activity during center time to practice subtraction facts to 10 • Grab and Go activity card Plus and Minus: Purple #5 (modeling addition and subtraction as inverse operations) • Independent reading activities for Miss Bumble's Garden to practice subtraction strategies • Read Ten Red Apples to introduce the concept of subtraction or taking away • Read Ten Sly Piranhas to reinforce the concept of counting back • Practice addition and subtraction using dominos and record sheet • Grab and Go activity cards: orange 9 and blue 5 • Read Mouse Count to provide experience with adding and subtracting to 10 • Read One, Two, Skip a Few which provides 20 counting rhymes, songs and chants	Math Bumpies Splash Math Touch Math • Math websites: https://www.ixl.com/math/grade-1 http://www.abcya.com/first_grade_computers.htm • Sum Sense online fluency game for addition and subtraction: http://resources.oswego.org/games/SumSense/sumadd.html http://www.oswego.org/ocsd-web/games/SumSense/sumsub.html • YouTube videos/songs for math strategies
Instructional Best Practices and Exemplars	
• Provide opportunities for students to use objects and counters to add and subtract • Allow students to create and act out addition and subtraction word problems • Create addition and subtraction sentences with pictures	

- Utilize the bar model for addition and subtraction problems
- Differentiate students based on their completion of formative assessment
- Encourage students to take on an active role in group work during the differentiated activities
- Allow students to learn collaboration while working with members in their math groups
- Have students connect mathematics through literature and informational text
- Model and teach students to use verbal and writing skills and reasoning to explain how they arrived at an answer
- Utilize 21st century skills through daily usage of various technology
- Practice test taking strategies during small group instruction
- Use of daily routines such as Problem of the Day and Number of the Day

Unit 2 Grade 1		
Curricular Framework Mathematics		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
■ 1.OA.B.3. Apply properties of operations as strategies to add and subtract. *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)* *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • When adding, the numbers need not be added in order. • To add 2 + 6 + 4, the second two numbers can be added first to make a ten. [e.g., 2 + 6 + 4 = 2 + 10 = 12 (Associative Property)] Students are able to: • add and subtract, within 20, using properties of operations as strategies. (Associative Property) Learning Goal 1: Apply properties of operations as strategies (Associative Property) to add or subtract <u>within 20.</u>
■ 1.OA.C.5. Relate counting to addition and subtraction (e.g., by counting 2 to	MP.1 Make sense of problems and	Concept(s):

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
add 2).	persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	• Counting can be used to add and subtract. Students are able to: • count on to add. • count back to subtract. Learning Goal 2: Count on to add and count backwards to subtract to solve addition and subtraction problems within 20.
■ 1.OA.C.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). *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Different strategies can be used to add and subtract. Students will be able to: • add and subtract within 20, using the following strategies: – counting on; – making ten; – composing numbers; – decomposing numbers leading to a ten; – relationship between addition and subtraction, and – creating equivalent but easier or known sums. • fluently add or subtract whole numbers within 20. Learning Goal 3: Add and subtract whole numbers within 20 using various strategies: counting on, making ten, composing, decomposing, relationship between addition and subtraction, creating equivalent but easier or known sums, etc.

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
1.OA.A.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*	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics.	Concept(s): • Symbols can be used to represent unknown numbers. • The symbol (unknowns) can be in any position. Students are able to: • use *objects and drawings* to represent word problems that call for less than or equal to 20. Learning Goal 4: Solve addition word problems with three whole numbers with sums less than or equal to 20.
1.OA.B.4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 - 8 by finding the number that makes 10 when added to 8*	MP.1 Make sense of problems and persevere in solving them. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): • Subtraction can be represented as an unknown-addend problem. • Finding 9 minus 3 means solving ? + 3 = 9 or 3 + ? = 9 (fact families). Students are able to: • represent subtraction as an unknown addend problem. • solve subtraction problems, within 10, using unknown addends. Learning Goal 5: Solve subtraction problems, within 10, by representing subtraction as an unknown added problem and finding the unknown addend
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*	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.	Concept(s): • Symbols can be used to represent unknown numbers. • The symbol (unknowns) can be in any position. Students are able to: • add, using drawings and equations, to solve word problems involving

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
equations with a symbol for the unknown number to represent the problem. *(benchmarked)	MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.6 Attend to precision.	situations of adding to and putting together. • subtract, using drawings and equations, to solve world problems involving situations of taking from and taking apart. Learning Goal 6: Use addition and subtraction within 20 to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.
■ 1.OA.D.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 = _.* *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • determine the unknown number that makes an equation true. • solve addition or subtraction equations by finding the missing whole number. Learning Goal 7: Solve addition and subtraction equations, within 20, by finding the missing whole number in any position.
■ 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.* *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: • determine if addition equations are true or false • determine if subtraction equations are true or false Learning Goal 8: Determine if addition and subtraction equations, within 20, are true or false.

Township of Union, Unit 2 Grade 1	
School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. • Go Math *Show What You Know* Quizzes (at the start of each chapter) • Go Math *Share and Show* Activities for each lesson • Go Math Reteach and Enrich resources • Small group instruction • Teacher facilitation and intervention during cooperative group/partner work • Differentiated math centers • Exit slips • Self-checklists	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* • Go Math Mid-Chapter Checkpoint quizzes • Go Math chapter assessments • Addition and subtraction fact quizzes • Getting Ready for PARCC assessments • Benchmark assessments • Extended Constructed Response (ECR) to assess students' progress with concepts and ability to explain them
Focus Mathematical Concepts	
Prerequisite skills: represent and solve problems involving the joining and separating of sets, understand addition as putting together and adding to, understand subtraction as taking apart and taking from Common Misconceptions: may misunderstand the meaning of the equal sign, may assume that a key word or phrase in a problem suggests the same operation will be used every time, may assume that the commutative property applies to subtraction, may think that the equal sign means that an operation must be performed on the numbers on the left and that the result of this operation is written on the right, may add or subtract incorrectly, may record an incorrect sum, may start with the first addend rather than the greater addend when counting on to add, may not identify doubles facts, may not identify which doubles fact to use when solving doubles plus and minus 1 problems, may identify a strategy to use that does not work with a given fact, may include the starting number when counting on or back, may count a full ten frame as 1 instead of 10, may make ten but forget to subtract from the other addend (when making ten), may incorrectly decompose the second addend when making ten, may compute the sum for the first two addends incorrectly and end up with an incorrect sum when adding three addends, may forget to add the third addend when adding three numbers, may draw the incorrect number of symbols when drawing a picture to solve problems, may not understand how to use the numbers from an addition sentence in a related subtraction sentence, may not understand that the same three numbers can be used in related addition and subtraction facts, may consider the counters used to count from 10 to the total number as the answer when making a ten to subtract, may not know how to break apart the number they are subtracting when using the break apart strategy, may confuse the missing part with the given part, may not comprehend the action described in a problem, may incorrectly find a missing number for related facts, may think that facts are related if they add and subtract the same numbers, may not record the correct sum or difference, may model an addition fact with an unknown addend by joining cube trains for the given addend and sum, may not understand how to complete a triangle diagram for related facts, may choose the wrong operation for a problem, may make a number with subtraction using the target number as the starting number	

Number Fluency (for grades K-5):

Grade	Required Fluencies
K	Fluently add/subtract within 5
1	Add/Subtract within 20, demonstrating fluency for addition and subtraction within 10

District/School Tasks

- iReady online program to practice and assess math skills
- Go Math Lessons (Chapters 3-5)
- Go Math Interactive Student Edition
- Animated Math Models Skills 1-27 (concepts related to addition and subtraction)
- Grab and Go activity card *Back and Forth*: Blue #7 (the Commutative Property of Addition)
- Reading activities for Join Us to practice adding up to ten
- Introduce the game *Ducky Sums* to practice one-digit addition and review basic facts to 12.
- Grab and Go activity card *Another Way to Add*: Purple #7 (addition using a number line)
- Grab and Go activity card *Double Trouble*: Orange #7 (addition with doubles facts)
- Reading activities for Doubles Fun on the Farm to practice adding equal groups to make doubles
- Grab and Go activity card *Add with Ten*: Blue #16 (addition with 10)
- Reading activities for Funny Bunny Hats to practice adding
- Introduce the game *Neighborhood Sums* to practice and review sums to 20.
- Grab and Go activity card *Make a Ten to Add*: Orange #16 (making a ten to problem solve)
- Grab and Go activity card *The Sum is the Same*: Purple #16 (different ways to find the same sum)

District/School Primary and Supplementary Resources

District/school resources and supplementary resources that are texts as well as digital resources used to support the instruction.

- Teacher and student editions for Go Math
- Go Math Animated Math Models
- Go Math *Personal Math Trainer* Activities
- Go Math *Math on the Spot* videos
- Go Math *iTools*
- Reteach teacher resource for intervention
- Enrich teacher resource for enrichment
- Go Math student workbooks
- Go Math work mats
- Grab and Go Center Kit resources
- Decodable books, Math Concept Readers
- Think Central tools for school and home/iTools
- Manipulatives (counters, connecting cubes, dominoes)
- Hundreds chart
- Touch Math resources
- iPad math apps:
  Door 24 Plus
  Math Bingo, By ABCya

- Grab and Go activity card *Apples Away*: Orange #5 (modeling subtraction sentences)
- Reading activities for Math Club to learn to read number sentences
- Introduce the game *Under the Sea* to practice subtraction facts to 12.
- Grab and Go activity card *Plus and Minus*: Purple #5 (addition and subtraction as inverse relations)
- Reading activities for Miss Bumble's Garden to practice subtraction strategies
- Grab and Go activity card *Runaway Squares*: Blue #5 (modeling subtraction problems)
- Reading activities for The Class Party to practice reading addition and subtraction sentences
- Grab and Go activity card *Picture This*: Blue #9 (modeling subtraction)
- Grab and Go activity card *Problem Solving*: Purple #11 (choosing the correct operation to solve a problem)
- Reading activities for Picture Puzzles to learn about addition and subtraction facts through 12
- Grab and Go activity card *Face Facts*: Orange #11 (modeling fact families for 11 and 12)
- Introduce the game *Related Facts Race* to practice naming related subtraction facts to 8
- Grab and Go activity card *Number Tales*: Purple #18 (exploring and modeling related facts)
- Grab and Go activity card *The Missing Piece*: Blue #18 (modeling subtraction to find a given difference)
- Reading activities for Juggling to practice addition and subtraction facts through 12
- Grab and Go activity card *Any Way You Cut It*: Blue #11 (expressing the same number as a sum or difference)
- Introduce the game *Basic Facts Race* to practice finding numbers in addition and subtraction sentences.
- Reading activities for Garden Party to practice subtraction

Successfully Learning Mathematics, Grade 1
Barnyard Math Challenge
Math Challenge 1
Grade 1 Math
Addition and Subtraction for Kids
Math GO
Math Bumpies
Splash Math
Touch Math

- ABCya.com
- MathChimp.com
- ixl.com
- Free Math Games Online
- Internet4classrooms.com Games
- Sum Sense online fluency game for addition and subtraction
  http://resources.oswego.org/games/SumSense/sumadd.html
  http://www.oswego.org/ocsd-web/games/SumSense/sumsub.html
- YouTube videos/songs

Instructional Best Practices and Exemplars

- Create anchor charts with students as new concepts, skills, and strategies are introduced. Display anchor charts around the classroom for future reference.
- Look for opportunities to appeal to multiple intelligences.
- Provide opportunities for students to use objects (manipulatives) as they add, subtract, and solve problems.

- Use information gleaned from formative assessments to plan appropriate, meaningful instruction that will target your students' weaknesses.
- Provide your students with meaningful, differentiated assignments and station activities to work on while you meet with small groups.
- When possible, integrate technology into your lesson through the use of computers, Smartboard, and iPads (if available).
- Have students tell, act out, and record addition and subtraction stories using objects or pictures and story mats.
- Make a class story problem book.
- Play addition and subtraction fact board games.
- Play *Combos to 10* (Students use two different sets of objects to make a combination that shows 10).
- Use flash cards for basic fact work.
- Use playing cards to play addition and subtraction games.
- Explore subtraction facts with cubes and ten frames to examine whole-part-part relationships for ten.
- Read or write addition and subtraction facts books.
- Make a fact family book.
- Provide students with an addition or subtraction fact. Have them brainstorm a list of different strategies that can be used to solve it. Facilitate a discussion on which strategy or strategies are the *best* for that fact. Encourage students to explain their reasoning.
- Have students maintain a daily math journal for problem solving.
- Have *Number Talks* daily. (Teacher provides the problem. Teacher provides students an opportunity to solve the problem mentally. Students show a visual cue when they are ready with a solution. Students signal if they have solved it in more than one way. Teacher calls for answers. She or he collects all answers, and records them (correct *and* incorrect). Students share strategies and justifications with peers.)
- Provide students with opportunities to work collaboratively with a group to solve problems.
- Have students connect mathematics through literature and informational text.
- Model and teach students to use verbal and writing skills and reasoning to explain how they arrived at an answer.
- Utilize 21st century skills through daily usage of various technologies.
- Practice test taking strategies during small group instruction.
- Use of daily routines such as Problem of the Day and Number of the Day.

TOWNSHIP OF UNION PUBLIC SCHOOLS

Grade 2 Mathematics – Curricular Frameworks Units 1and 2

Curriculum Guide

2016

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.

Statement of District Goals

- **Develop reading, writing, speaking, listening, and mathematical skills.**
- **Develop a pride in work and a feeling of self-worth, self-reliance, and self-discipline.**
- **Acquire and use the skills and habits involved in critical and constructive thinking.**
- **Develop a code of behavior based on moral and ethical principles.**
- **Work with others cooperatively.**
- **Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.**
- **Acquire a knowledge and understanding of the physical and biological sciences.**
- **Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.**
- **Appreciate and understand literature, art, music, and other cultural activities.**
- **Develop an understanding of the historical and cultural heritage.**
- **Develop a concern for the proper use and/or preservation of natural resources.**
- **Develop basic skills in sports and other forms of recreation.**

Pacing Guide

Content	Number of Days
Unit 1	45
Unit 2	45
Unit 3	45
Unit 4	45

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
■ 2.OA.A.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count on and put together to add to solve one- and two-step word problems. • take from or take apart to subtract to solve one- and two-step word problems. • use drawings and equations to represent the problem. Learning Goal 1: Add and subtract within 20 to solve 1- and 2-step word problems with unknowns in any position.
■ 2.OA.B.2. Fluently add and subtract within 20 using mental strategies. *By end of Grade 2, know from memory all sums of two one-digit numbers.* *(benchmarked)	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • add within 10 using mental strategies with accuracy and efficiency. • subtract within 10 using mental strategies with accuracy and efficiency. Learning Goal 2: Fluently add and subtract within 10 using mental strategies.
■ 2.NBT.A.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: 2.NBT.A.1.a. 100 can be thought of as a bundle of ten tens — called a "hundred."	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • 100 can be thought of as a bundle of ten tens — called a *hundred.* • The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 *tens* and 0 *ones*). Students are able to: • represent 100 as a bundle of ten *tens.* • represent the number of *hundreds*, *tens*, and *ones* in a 3-digit number.

Unit 1 Grade 2		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
2.NBT.A.1.b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).		Learning Goal 3: Represent a 3-digit number as specific amounts of *hundreds*, *tens*, and *ones*. Learning Goal 4: Identify ten *tens* as 100 and represent two hundred, three hundred, … nine hundred with 2, 3, …, 9 hundred bundles (with zero *tens* and zero *ones*).
■ 2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s. *(benchmarked)	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count by fives within 1000. • count by tens within 1000. • count by hundreds within 1000. Learning Goal 5: Skip count by 5s and 10s up to 100...beginning at any multiple of 5.
■ 2.NBT.A.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Expanded form Students are able to: • read numbers to 1000 written using base-ten numerals. • read number names to 1000. • read numbers to 1000 written in expanded form. • write numbers to 1000 using base-ten numerals, number names, and expanded form. Learning Goal 6: Read numbers to 1000 using base-ten numerals, number names,

Unit 1 Grade 2		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
		and expanded form. Learning Goal 7: Write numbers to 1000 using base-ten numerals, number names, and expanded form.
■ 2.NBT.A.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	MP 2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Place value Students are able to: • use the number of the hundreds, tens and/or ones digits to compare two three-digit numbers. • write the results of the comparison using >, =, or <. Learning Goal 8: Use symbols >, =, < to record the results of comparing two 3-digit numbers by decomposing the number into a number (100s, 10s, and 1s).
■ 2.NBT.B.8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Place value Students are able to: • Mentally add 10 or 100 from any given number between 100 and 900. • Mentally subtract 10 or 100 from any given number between 100 and 900. Learning Goal 9: Mentally add or subtract 10 or 100 from any given number between 100 and 900.

Township of Union Unit 1 Grade 2	
District/School Formative Assessment Plan	**District/School Summative Assessment Plan**

• Daily formative assessment will take place in the form of quick check questions to determine students' ability to achieve objective and which tier they will work in.
• Formative assessment will take place in the form of math journal questions to determine students' ability to achieve objective and which tier they will work in.
• Daily formative assessment in the form of independent practice to monitor students' understanding of concepts and abilities to apply them to independent work.
• Mid-chapter checkpoint quiz and ECR to assess students' progress with concepts and ability to explain them.
• Weekly math drills on addition and subtraction to assess students' progress with math facts.
	• End of the unit assessment consisting of:
	  • Multiple choice questions
	  • Short answer responses
	• Extended constructed response- Students will complete task and explain in writing how they were able to construct their responses using key mathematical vocabulary

Focus Mathematical Concepts

Prerequisite skills:

Go Math- Grade 1 Unit 1 –Operations and Algebraic Thinking

- Chapter 1- Addition Concepts
- Chapter 2- Subtraction Concepts
- Chapter 3- Addition Strategies
- Chapter 4- Subtraction Strategies
- Chapter 5- Addition and Subtraction Relationships

Common Misconceptions:

Practice Addition Facts- Students may show difficulty recalling sums for basic facts using mental strategies

Practice Subtraction Facts- Students may show difficulty recalling differences for basic facts using mental strategies

Use Compensation- Students may show difficulty using compensation to develop flexible thinking for 2-digit addition
Model Regrouping for Addition- Students may show difficulty modeling 2-digit addition with regrouping
Model Regrouping for Subtraction- Students may show difficulty modeling 2-digit subtraction with regrouping
Solve Multistep Problems- Students may show difficulty analyzing word problems to determine what operations to use to solve multistep problems
Regrouping with Zeros- Students may show difficulty recording subtraction using the standard algorithm when there are zeros in the minuend

Number Fluency (for grades K-5):
Students exhibit computational fluency when they demonstrate flexibility in the computational methods they choose, understand and can explain these methods, and produce accurate answers efficiently.

Grade Level Fluency

Grade	Required Fluencies
K	Add/Subtract within 5
1	Add/Subtract within 10
2	**Add/Subtract within 20** **Add/Subtract within 100**

District/School Tasks	**District/School Primary and Supplementary Resources**
• Students will be differentiated based on their completion of formative assessment. • Students will take on an active role in group work during the differentiated activities. • Students will learn collaboration while working with members in their groups. • Students will connect mathematics with literature, informational text, and real world usage. • Students will learn how to add and subtract numbers using models	• Go Math Second Grade Teacher and Student Editions • Go Math Enrich, Reteach, and On Level pages • Think Central for school and home/ITools • Math on the Spot Videos • Go Math Grab-and-Go Centers kit • IReady Program • Math Journal • YouTube videos/songs

and standard algorithm.
• Students will practice creating fact families using different addends, they will also create math fact families.
• Students will use writing skills and reasoning to explain how they arrived at an answer.
• Students will use 21st century skills through daily usage of technology.
• Students will practice test taking strategies during small group instruction.
	• Educational games
	• Math Literature
	  • All About Animals Go Math Literaure
	  • Monster Musical Chairs by Stewart Murphy and Scott Nash
	  • Elevator Magic by Stewart Murphy
	  • If You Were a Minus Sign by Trisha Shashkin
	  • Hershey's Kisses Subtraction Book by Jerry Pallotta
	  • Subtraction Action by Loreen Leedy
	  • Math-tepieces: The Art of Problem Solving by Greg Tang
	• Manipulatives
	  • Two color counters
	  • Number Line
	  • Tens Frame
	  • Fact Family Houses
	  • Math boards
	  • Number chart
	  • Counting tape
	  • Graphic organizers
	  • White boards
	  • Calendars
	  • Spinners
	  • Dice

Instructional Best Practices and Exemplars	
• Students will be assessed on two formative questions and tiered accordingly each day. Students will work in collaborative groups and explain how they arrived at their answers. This will help students develop reasoning skills and make real world connections to	

mathematics.

- Students will work in their groups to complete GO Deeper and THINK Smarter problems. This will help students use collaborative skills and provide them with opportunity to explain their mathematical processes, as well as share and model test-taking strategies.
- Teacher and student modeling will be utilized daily with use of technology to promote problem solving, communication, and 21st century skills.
- Animated activities will be used throughout the unit to reinforce previously learned skills. This will help students visualize mathematical processes and also provide more opportunities to build skills with technology.
- At the close of each lesson, a student volunteer will restate the lesson and explain how to complete the objective, allowing students to take on leadership roles and work on speaking and listening skills.
- Students will participate in a daily Math Journal activity, which will reinforce the lesson. It will also provide students with the opportunity to explain mathematical processes in written form.
- Students will connect mathematics to the real world by listening to read aloud, All about Animals from GoMath. They will use literature to review addition concepts. This will assist students in determining relevance for mathematics.
- Students will participate in solving problems by using arrays and models.
- Students will use a calendar to create mathematical problems to find sums.
- Students will use whiteboards to practice with a partner how to show double facts while passing the boards to each other to check how to solve the problem. This will help students to develop listening and speaking skills.
- Children will practice showing the same number by using various combinations of ten frames. This will help to prepare children for regrouping.
  And reinforce speaking and listening skills.
- Children will use the strategy of Break Apart to make a ten as a way to assist in test taking skills.
- Students will use "Math on the Spot" as a visual aid to assist in mathematical strategies.
- Students will be exposed to reviewing, modeling and writing: Identify the place value of digits and write numbers in different ways to help when adding two 2-digit addends.
- Students will use counting tape to notice patterns that will help them create counting short cuts (mental math) when adding and subtracting.
- Students will practice subtracting 2 digit numbers with spinners and dice.
- Students will practice addition and subtraction with a two digit shuffle game.

Unit 2 Grade 2		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
■ 2.OA.A.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count on and put together to add to solve one- and two-step word problems. • take from or take apart to subtract to solve one- and two-step word problems. • use drawings and equations to represent the problem. Learning Goal 1: Add and subtract <u>within 100</u> to solve 1- and 2-step word problems with unknowns in any position.
■ 2.OA.B.2. Fluently add and subtract within 20 using mental strategies. *By end of Grade 2, know from memory all sums of two one-digit numbers.* *(benchmarked)	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • add <u>within 10</u> using mental strategies with accuracy and efficiency. • subtract <u>within 10</u> using mental strategies with accuracy and efficiency. Learning Goal 2: Fluently add and subtract <u>within 10</u> using mental strategies.
□ 2.OA.C.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others.	Concept(s): • Even: groups having even numbers of objects will pair up evenly. • Odd: groups having odd numbers of objects will not pair up evenly. Students are able to: • pair up to 20 object, count by 2s and determine whether the group contains an

	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning	even or odd number of objects. • write an equation to express an even number as a sum of two equal addends. Learning Goal 3: Write an equation to express an even number as a sum of two equal addends.
☐ 2.OA.C.4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Arrays as arrangements of objects. Students are able to: • with objects arranged in an array, use repeated addition to find the total. • with objects arranged in an array, write an equation to express repeated addition. Learning Goal 4: Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.
◎ 2.G.A.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	MP 2 Reason abstractly and quantitatively. MP.6 Attend to precision. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • partition a rectangle into rows and columns of same-size squares and count to find the total number. Learning Goal 5: Partition a rectangle into rows and columns of same-size squares and count to find the total number.
■ 2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked)	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in	Concept(s): No new concept(s) introduced Students are able to: • with accuracy and efficiency, add and subtract within 50 using strategies based on place value. • with accuracy and efficiency, add and subtract within 50 using strategies based

	repeated reasoning.	on properties of operations. • with accuracy and efficiency, add and subtract within 50 using strategies based on the relationship between addition and subtraction. Learning Goal 6: Use a variety of strategies (place value, properties of operation, and/or the relationship between addition and subtraction) to add and subtract within 50.
■ 2.NBT.B.6. Add up to four two-digit numbers using strategies based on place value and properties of operations.	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • add three two digit numbers using place value strategies and properties of operations. • add four two digit numbers using place value strategies and properties of operations. Learning Goal 7: Add up to four two -digit numbers using strategies based on place value and properties of operations.
■ 2.NBT.B.7. Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • In adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones. • Sometimes it is necessary to compose or decompose tens or hundreds. Students are able to: • add and subtract within 1000, using concrete models or drawings. • add and subtract within 1000 using strategies based on place value. • add and subtract within 1000 using properties of operations or the relationship between addition and subtraction. • relate the strategies to a written method. Learning Goal 8: Add and subtract within 1000, 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.
■ 2.NBT.B.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.	MP 2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • Explain, using objects and drawings, why addition and subtraction strategies based on place value work. • Explain, using objects and drawings, why addition and subtraction strategies based on properties of operations work. Learning Goal 9: After applying addition and subtraction strategies based on place value and the properties of operations, explain why these strategies work using drawings or objects [for example, 37 + 12 equals 30 + 7 + 10 + 2 (place value) which equals 30 + 10 + 7 + 2 (property of operations)].
■ 2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s. *(benchmarked)	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • count within 1000 by ones. • count within 1000 by fives, tens, and hundreds beginning at any multiple of 5, 10, or 100. Learning Goal 10: Count within 1000 by ones, fives, tens, and hundreds beginning at any multiple of 1, 5, 10, or 100 (e.g. begin at 505 and skip count by 5 up to 605, or begin at 600 and skip count by 100 up to 1000).

Township of Union Unit 2 Grade 2	
District/School Formative Assessment Plan	**District/School Summative Assessment Plan**

• Daily formative assessment will take place in the form of quick check questions to determine students' ability to achieve objective and which tier they will work in.
• Formative assessment will take place in the form of math journal questions to determine students' ability to achieve objective and which tier they will work in.
• Daily formative assessment in the form of independent practice to monitor students' understanding of concepts and abilities to apply them to independent work.
• Mid-Chapter checkpoint quiz
• Mid-Chapter Extended Constructed Response (ECR) to assess students' progress with concepts and ability to explain them.
	• End of the unit assessment consisting of:
	  • Multiple choice questions relating to number concepts
	  • Questions requiring application and explanation of skills acquired throughout the unit
	• Extended Constructed Response (ECR)- Students will complete task and explain in writing how they were able to construct their responses

Focus Mathematical Concepts

Prerequisite skills:

Go Math- Grade 1 Unit 2 –Number and Operations in Base Ten

- Chapter 6- Count and Model Numbers
- Chapter 7- Compare Numbers
- Chapter 8- Two Digit Addition and Subtraction

Common Misconceptions:
Even and Odd Numbers- Students may show difficulty identifying numbers as odd or even.
Counting Patterns Within 100, and then Within 1,000- Students may show difficulty with skip-counting by 5s and 10s, or even by 2s.
Problem Solving- Students may show difficulty with solving problems by finding different combinations of tens and ones to represent 2-digit numbers using the strategy *find a pattern*
Group Tens as Hundrends- Students may show difficulty with understanding that each group of 10 tens is equivalent to one 100
Count On and Count Back by 10 and 100- Students may show difficulty in identifying 10 more, 10 less, 100 more, or 100 less than a given number

Number Fluency (for grades K-5):
Students exhibit computational fluency when they demonstrate flexibility in the computational methods they choose, understand and can explain these methods, and produce

accurate answers efficiently.

Grade Level Fluency

Grade	Required Fluencies
K	Add/Subtract within 5
1	Add/Subtract within 10
2	**Add/Subtract within 20** **Add/Subtract within 100**

District/School Tasks	District/School Primary and Supplementary Resources

• Students will be differentiated based on their completion of formative assessment.
• Students will take on an active role in group work during the differentiated activities.
• Students will learn collaboration while working with members in their groups.
• Students will learn how to write numbers in word form, preparing for check writing skills.
• Students will practice counting by 1s, 5s, and 10s; which will help to prepare them for money and time telling skills.
• Students will connect mathematics with literature and informational text.
• Students will use writing skills and reasoning to explain how they arrived at an answer.
• Students will use 21st century skills through daily usage of
	• Go Math Second Grade Teacher and Student Editions
	• Go Math Enrich, Reteach, and On Level pages
	• Think Central for school and home/ITools
	• Math on the Spot Videos
	• Go Math Grab-and-Go Centers kit
	• IReady Program
	• Math Journal
	• YouTube videos/songs
	• Educational games
	• Math Literature
	  • Whales – Go Math Literature
	  • Even Steven and Odd Todd by Kathryn Cristaldi
	  • Earth Day-Hooray by Stuart J. Murphy

technology.
• Students will practice test taking strategies during small group instruction.
	• Manipulatives
	  • Connecting cubes
	  • Base ten blocks
	  • Hundreds chart
	  • Graphic organizers

Instructional Best Practices and Exemplars

- Students will be assessed on formative questions and tiered accordingly each day. Students will work in collaborative groups and explain how they arrived at their answers. This will help students develop reasoning skills and make real world connections to mathematics.
- Students will work in their groups to complete daily problem solving applications. This will help students use collaborative skills and provide them with opportunity to explain their mathematical processes, as well as share and model test-taking strategies.
- Teacher and student modeling will be utilized daily with usage of technology to promote problem solving, communication, and 21st century skills.
- At the close of each lesson, a student volunteer will restate the lesson and explain how to complete the objective, allowing students to take on leadership roles and work on speaking and listening skills.
- Students will participate with various Math Journal activities, which will reinforce the lesson. It will also provide students with the opportunity to explain mathematical processes in written form.
- Students will participate in a "book club" reading of informational text, Whales from GoMath. While reading, students will connect mathematical concepts to real world situations and answer mathematical questions based on place-value concepts. Students will then work with partners to create their own math story using mathematical vocabulary appropriately. Students will share their writing with the class. This will assist students in the ability to explain how they arrived at their answer and foster communication skills.
- Students will be asked to define the word *pair*. They will then be asked if they can arrange amounts of a specified number of connecting cubes in pairs. The class will determine that even numbers can be broken into pairs and odd numbers cannot. This will allow students to take an active part in the lesson.
- Students will listen to read aloud, Even Steven and Odd Todd. The class will compare and contrast the items that each character liked. Students will be chosen to "quiz" the class as to whether a number is even or odd. Students will then use connecting cubes to demonstrate specific numbers of odd and even numbers. It will then be noted that even numbers can be divided into equal groups and odd numbers cannot. Students will also learn and participate in singing an odd and even "Bingo song" from YouTube. This will assist students in foundations for multiplication by recognizing equal groups.

- Students will be lined up in groups of ten and single children to represent tens an ones. They will then count by tens and then count on by ones until all children are counted. Students will then be provided with two digits and asked to arrange them in two different ways. Students will compare and contrast the two numbers to determine that the place a digit is in determines its value. This will help students to visualize place value.
- Students will use charts to locate the correct spelling of two digit numbers, using hyphens appropriately. This will assist students with real world skills of check writing.
- Students will participate in a base-ten "Go Fish" game. This will allow students the kinesthetic opportunity to match numbers in standard form, written form, and expanded form.
- Students will work collaboratively to show 2-digit numbers and equivalent representations of the number when trading in one ten for ten ones. This will assist students in developing number sense and fluency to prepare
- Students will use the C.U.B. and/or C.U.B.E.S. strategies to solve word problems. Students will then draw upon the previous lesson of showing equivalent numbers by using various combinations of tens and ones. They will use graphic organizers to chart and extend the pattern shown. The strategy will allow students to connect mathematical problem solving with patterns.
- Students will activate prior knowledge and build fluency by practicing skip counting by 2s, 5s, and 10s. They will then continue patterns to fill in a hundred chart and continue counting patterns in various increments from various numbers in the hundreds chart. This will later be applied to numbers to 1000.
- Students will participate in a read aloud, Earth Day—Hooray! The text will reinforce place value skills and their connection to real world situations, as well as provide support in developing responsible global citizens.
- Students will complete a review activity, they take an active role in deciding which concepts they individually require support in.

TOWNSHIP OF UNION PUBLIC SCHOOLS

Mathematics Grade 3
Curricular Framework - Unit 1

Curriculum Guide
2016

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.

Statement of District Goals

- **Develop reading, writing, speaking, listening, and mathematical skills.**
- **Develop a pride in work and a feeling of self-worth, self-reliance, and self-discipline.**
- **Acquire and use the skills and habits involved in critical and constructive thinking.**
- **Develop a code of behavior based on moral and ethical principles.**
- **Work with others cooperatively.**
- **Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.**
- **Acquire a knowledge and understanding of the physical and biological sciences.**
- **Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.**
- **Appreciate and understand literature, art, music, and other cultural activities.**
- **Develop an understanding of the historical and cultural heritage.**
- **Develop a concern for the proper use and/or preservation of natural resources.**
- **Develop basic skills in sports and other forms of recreation.**

Pacing Guide

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice

Content	Number of Days
Unit 1	45
Unit 2	45
Unit 3	45
Unit 4	45

Unit 1 **Addition, Subtraction, and** **Multiplication concepts**	■ 3.OA.1 ■ 3.OA..3* ■ 3.OA..4 ■ 3.OA.9 ■ 3.NBT.1 ■ 3.NBT.2	• Represent and solve problems involving addition, subtraction, and multiplication • Understand properties of multiplication • Round to the nearest tens and hundreds • Use place value understanding and properties of operations to perform multi-digit arithmetic	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
Unit 1: ***Suggested Open Educational Resources***	3.OA.A.2 Fish Tanks 3.OA.A.3 Analyzing Word Problems Involving Multiplication 3.OA.A.4 Finding the unknown in a division equation 3.NBT.A.1 Rounding to 50 or 500 3.NBT.A.1 Rounding to the Nearest Ten and Hundred 3.NBT.A.3 How Many Colored Pencils?		

Content & tice Standards	Suggested Standards from Mathematical Practice	Critical Knowledge & Skills
■ 3.OA.1. Interpret products of whole numbers, e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 x 7.	MP 2 Reason abstractly and quantitatively. MP.4 Model with mathematics.	Concept(s): Multiplication is a means to determine the total number of objects when there are a specific number of groups with the same number of objects in each group. Multiplication gives the same result as repeated addition. Product of two whole numbers is the total number of objects in a number of equal groups. Students are able to: interpret products of whole numbers as a total number of objects. use repeated addition to find the total number of objects arranged in an array and in equal groups and compare to the result of multiplication. describe a context in which a total number of objects is represented by a product. interpret the product in the context of a real-world problem. Learning Goal 1: Interpret products of whole numbers as repeated addition and as the total number of objects (up to 100) in equal groups or arrays.
■ 3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics.	Concept(s): No new concept(s) introduced Students are able to: multiply to solve word problems involving equal groups and arrays. divide to solve word problems involving equal groups and arrays. represent a word problem with a drawing showing equal groups, arrays, equal shares, and/or total objects. represent a word problem with an equation. Learning Goal 2: Use multiplication and division within 100 to solve word problems by modeling equal groups or arrays and by writing equations to represent equal groups or arrays
■ 3.OA.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = ÷ 3, 6 × 6 = ?.	MP 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): Equal sign indicates that the value of the numerical expressions on each side are the same. Unknown in an equation (4 x __ = 20 and 20 = ? x 4) represents a number. Unknown can be in different positions. Letters can represent numbers in equations. Students are able to: determine which operation is needed to find the unknown. multiply or divide, within 100, to find the unknown whole number in a

		multiplication or division equation. Learning Goal 3: Determine the unknown in a division or multiplication equation relating 3 whole numbers (within 100).
■ 3.OA.6. Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.	MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): Division can be represented as a multiplication problem having an unknown factor. Relationships between factors, products, quotients, divisors and dividends. Students are able to: write division number sentences as unknown factor problems. solve division of whole numbers by finding the unknown factor. Learning Goal 4: **Solve division of whole numbers by representing the problem** as an unknown factor problem.
■ 3.OA..9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*	MP.3 Construct viable arguments and critique the reasoning of others. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): Addition and multiplication tables reveal arithmetic patterns. Patterns may be related to whether a number is even or odd. Patterns exist in rows, columns and diagonals of addition tables and multiplication tables. Decomposing numbers into equal addends may reveal patterns. Students are able to: explain arithmetic patterns using properties of operations. Learning Goal 5: Recognize arithmetic patterns, including patterns in addition or multiplication tables, and explain the patterns using properties of operations.
■ 3.NBT..1. Round whole numbers to the nearest 10 or 100.	MP 2 Reason abstractly and quantitatively.	Concept(s): Rounding leads to an approximation or estimate. Students are able to: use number lines and a hundreds charts to explain rounding numbers to the nearest 10 and 100. round a whole number to the nearest 10. round a whole number to the nearest 100.

		Learning Goal 6: Round whole numbers to the nearest 10 or 100.
■ 3.NBT..2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. *(benchmarked)	MP 2 Reason abstractly and quantitatively.	Concept(s): No new concept(s) introduced Students are able to: add and subtract two 2-digit whole numbers within 100 with accuracy and efficiency. Learning Goal 7: Fluently add and subtract (with regrouping) two 2-digit whole numbers within 100.

Union Township - Unit 1 Grade 3

District/School Formative/Summative Assessment Plan

Both formative and summative assessments are vital components of effective mathematics curriculum. Formative assessments, (e.g., pre-assessments, observation checklists, discussions of strategies students use to solve problems, etc.) assist in instructional planning and implementation; summative assessments (e.g., unit assessments, quarterly benchmarks, etc.) inform learner growth related to important mathematics concepts. All district-adopted resources contain multiple assessment tools and include online resources that can be used for the purposes delineated above. They include but are not limited to:

I-Ready Diagnostic(Formative/Summative)
Beginning/Middle of the Year Assessment (GO Math Program)
GO Math Checkpoints (Formative)

Go Math Chapter Tests(Fortmative/Summative)

EdConnect district created benchmarks (Summative)

Classroom Observation/Checklists (Formative)

Focus Mathematical Concepts

Districts should consider listing prerequisites skills. Concepts that include a focus on relationships and representation might be listed as grade level appropriate.

Prerequisite skills: In order to be able to master the standards covered in this unit, (adding and subtracting within 1000, rounding to the nearest tens and hundreds, and understanding multiplication concepts) students must have a grasp on the following concepts:

Adding and Subtracting:
Recognize the numerals 0,1,2,3,4,5,6,7,8,9.
Basic addition and subtraction facts to 99 without regrouping
Understand place value

Rounding:
"Counting on" and "counting back"
Counting by ones; "skip counting" by tens
Familiarity with discrete concrete objects and base ten concrete materials

Multiplication Concepts:
"Skip counting" by 2's,5's, and 10's
Ability to count and group objects

Common Misconceptions:

NBT.1 Rounding: The use of the terms "round up" or "round down" can confuse many students. For example: if the student is asked to round the number 47. They would say that it rounds to 50 or "rounds up". The tens place digit changes from a 4 to a 5. This causes a problem when "rounding down". For example: 42 should be rounded to 40, but when the students use the previous method they will often "round down" the digit in the tens place from 4 to 3 therefore making it 30 instead of 40.

NBT.2 Place Value: It is possible that students may not have a conceptual understanding of place value so when adding or subtracting in expanded form they may believe that 456 would 4+5+6 instead of 400+50+6.
Students with no number line experience may want to put each number on the number line. They may not know how to space the numbers to that they represent the number correctly
NBT.2 Mental Math: If students have previously been exposed to the standard algorithm, when they are asked to compute math mentally, they will usually perform the standard algorithm in their head instead of using a different strategy.

OA.1-4 Students think a symbol (? Or n) is always the place for the answer. This is especially true when the problem is written as 15 ÷ 3 =? or 15 = n x 3.
Students also think that 3 ÷ 15 = 5 and 15 ÷ 3 = 5 are the same equations. The use of models is essential in helping students eliminate this understanding.

The use of a symbol to represent a number once cannot be used to represent another number in a different problem/situation. Presenting students with multiple situations in which they select the symbol and explain what it represents will counter this misconception.

OA.9 Thinking students should be required to use a specific method when solving a problem, rather than allowing students to freely select from different strategies.
Thinking that relying on key words is always an effective strategy in problem solving.
In the equation 17 + 20 = 37, students tend to think that 17 + 20 is the problem and the equal sign means "the answer is next." However, in an equation such as 17 + 20 = 37, it should be thought of as 17 + 20 *is the same as* 37.

Number Fluency (for grades K-5):

Add/Subtract within 1000
Multiply within 100

District/School Tasks	District/School Primary and Supplementary Resources
3.OA.2 Fish Tanks 3.OA.3 Analyzing Word Problems Involving Multiplication 3.OA.4 Finding the unknown in a division equation	*GO Math Chapter 1(district provided textbook)* *Go Math Chapter 3 (district provided textbook)* *Go Math Chapter 4(district provided textbook)*

3.NBT.1 Rounding to 50 or 500 3.NBT.1 Rounding to the Nearest Ten and Hundred 3.NBT.2 Fluently Add and Subtract Within 1000 3.NBT.1 The Great Round Up Performance Task 3.NBT.1.2 Three Other Ways 3.NBT.2 Arrow Cards 3.NBT.2 Mental Math 3.OA.1,2 PBA 3 Problems 3.OA.9 Skip Counting 3.OA.1,2,3,4 Ice Cream Scoops	*Think Central(website for GO Math program)* *I-Ready* ***Suggested supplemental books:*** *The Best of Times by Greg Tang* *Math for All Seasons by Greg Tang* *The Grapes of Math by Greg Tang* *Two of Everything by Lily Toy Hong* *Amanda Bean's Amazing Dream by Cindy Neuschwander*

Instructional Best Practices and Exemplars

In this unit, educators should consider implementing learning experiences which provide opportunities for students to:

1. **Make sense of problems and persevere in solving them.**
   - **a.** Determine what the problem is asking for: equation to represent the problem; determining the unknown in a given problem, justifying the solution using arithmetic patterns or estimation.
   - **b.** Determine whether concrete or virtual models, pictures, mental mathematics, or equations are the best tools for solving the problem.
   - **c.** Check the solution with the problem to verify that it does answer the question asked.

2. **Reason abstractly and quantitatively**
   - a. Compare the equation within the problem using concrete or virtual models.
   - b. Use arithmetic patterns and/or estimation to make sense of the problem and justify the solution.

3. **Construct Viable Arguments and critique the reasoning of others.**
   - a. Compare the equations or models used by others with yours.
   - b. Examine the steps taken that produce an incorrect response and provide a viable argument as to why the process produced ar incorrect response.
   - c. Use the calculator to verify the correct solution, when appropriate.

4. **Model with Mathematics**
    - **a.** Construct visual models using concrete or virtual manipulatives, pictures, or equations to justify thinking and display the solution.

5. **Use appropriate tools strategically**
    - **a.** Use Digi-Blocks, base ten blocks, counters, addition or multiplication tables, or other models, as appropriate.
    - **b.** Use the calculator to verify computation.

6. **Attend to precision**
    - a. Use mathematics vocabulary such as addend, product, factor, equation, etc. properly when discussing problems.
    - b. Demonstrate their understanding of the mathematical processes required to solve a problem by carefully showing all of the steps in the solving process.
    - c. Correctly write and read equations.
    - d. Use <, =, and > appropriately to compare expressions.

7. **Look for and make use of structure.**
    - a. Use the patterns illustrated in addition and multiplication tables to justify solutions.
    - b. Use the relationships demonstrated in the properties of operations to justify solutions.

8. **Look for and express regularity in reasoning**
    - a. Use the patterns illustrated in addition and multiplication tables to justify solutions.
    - b. Use the relationships demonstrated in the properties of operations to justify solutions.

3.NBT.1. Students learn when and why to round numbers. They identify possible answers and halfway points. Then they narrow where the given number falls between the possible answers and halfway points. They also understand that by convention if a number is exactly at the halfway point of the two possible answers, the number is rounded up. **Example:** Round 128 to the nearest 10.
Step 1: The answer is either 120 or 130.
Step 2: The halfway point is 125.

Step 3: 128 is between 125 and 130.
Step 4: Therefore, the rounded number is 180

3.NBT.2.
Problems should include both vertical and horizontal forms, including opportunities for students to apply the commutative and associative properties. Adding and subtracting fluently refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently. Students explain their thinking and show their work by using strategies and algorithms, and verify that their answer is reasonable.
Example:
• Mary read 573 pages during her summer reading challenge. She was only required to read 399 pages. How many extra pages did Mary read beyond the challenge requirements?
Students may use several approaches to solve the problem including the traditional algorithm. Examples of other methods students may use are listed below:
• 399 + 1 = 400, 400 + 100 = 500, 500 + 73 = 573, therefore 1+ 100 + 73 = 174 pages (Adding up strategy)
• 400 + 100 is 500; 500 + 73 is 573; 100 + 73 is 173 plus 1 (for 399, not 400) is 174 (Compensating strategy)
• Take away 73 from 573 to get to 500, take away 100 to get to 400, and take away 1 to get to 399.
Then 73 +100 + 1 = 174 (Subtracting to count down strategy)
• 399 + 1 is 400, 500 (that's 100 more). 510, 520, 530, 540, 550, 560, 570, (that's 70 more), 571, 572, 573 (that's 3 more) so the total is 1+100+70+3 = 174 (Adding by tens or hundreds strategy)

3.OA.9.
Students need ample opportunities to observe and identify important numerical patterns related to operations. They should build on their previous experiences with properties related to addition and subtraction
. Students investigate addition and multiplication tables in search of patterns and explain why these patterns make sense mathematically.
For example:
• Any sum of two even numbers is even.
• Any sum of two odd numbers is even.
• Any sum of an even number and an odd number is odd.
• The multiples of 4, 6, 8, and 10 are all even because they can all be decomposed into two equal groups.
• The doubles (2 addends the same) in an addition table fall on a diagonal while the doubles (multiples of 2) in a multiplication table fall on

horizontal and vertical lines.
• The multiples of any number fall on a horizontal and a vertical line due to the commutative property.
• All the multiples of 5 end in a 0 or 5 while all the multiples of 10 end with 0. Every other multiple of 5 is a multiple of 10. Students also investigate a hundreds chart in search of addition and subtraction patterns. They record and organize all the different possible sums of a number and explain why the pattern makes sense.

3.OA.8.
Students should be exposed to multiple problem-solving strategies (using any combination of words, numbers, diagrams, physical objects or symbols) and be able to choose which ones to use.
Examples:
• Jerry earned 231 points at school last week. This week he earned 79 points. If he uses 60 points to earn free time on a computer, how many points will he have left?
A student may use the number line above to describe his/her thinking, "231 + 9 = 240 so now I need to add 70 more. 240, 250 (10 more), 260 (20 more), 270, 280, 290, 300, 310 (70 more). Now I need to count back 60. 310, 300 (back 10), 290 (back 20), 280, 270, 260, 250 (back 60)."

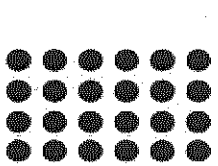
A student writes the equation, 231 + 79 –60 = m and uses rounding (230 + 80 –60) to estimate.
A student writes the equation, 231 + 79 –60 = m and calculates 79 –60 = 19and then calculates 231 + 19 = m.
• The soccer club is going on a trip to the water park. The cost of attending the trip is $63. Included in that price is $13 for lunch and the cost of 2 wristbands, one for the morning and one for the afternoon. Write an equation representing the cost of the field trip and determine the price of one wristband.

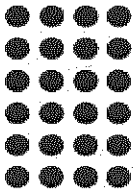
The above diagram helps the student write the equation, w + w + 13 = 63. Using the diagram, a student might think, "I know that the two wristbands cost $50 ($63-$13) so one wristband costs $25." To check for reasonableness, a student might use front end estimation and say 60-10 = 50 and 50 ÷ 2 = 25.

When students solve word problems, they use various estimation skills which include identifying when estimation is appropriate, determining the level of accuracy needed, selecting the appropriate method of estimation, and verifying solutions or determining the reasonableness of solutions. Estimation strategies include, but are not limited to:
• using benchmark numbers that are easy to compute

• front-end estimation with adjusting (using the highest place value and estimating from the front end making adjustments to the estimate by taking into account the remaining amounts)
• rounding and adjusting (students round down or round up and then adjust their estimate depending on how much the rounding changed the original values)

3.OA.1 This standard requires students to think in terms of groups of things rather than individual things. Students learn that the multiplication symbol 'x' means "groups of" and problems such as 5 x 7 refer to 5 groups of 7. Students should be exposed to appropriate terminology. (equal groups, factor, product)
3.OA.3*Students use a variety of representations for creating and solving one step word problems, i.e., numbers, words, pictures, physical objects, or equations. They use multiplication and division of whole numbers up to 10 x10. Students explain their thinking, show their work by using at least one representation, and verify that their answer is reasonable.
Word problems may be represented in multiple ways:
Equations: 4 x 6 = ?, 6 x 4 = ?, 24 ÷ 4 = ? and 24 ÷ 6 = ?
Arrays:





4 x 6 = 24 6 x 4 = 24

Equal groups:

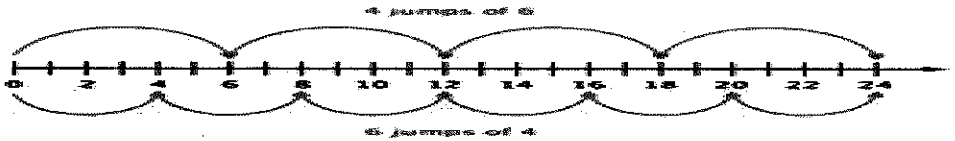
4x6=24

Repeated addition: 4 + 4 + 4 + 4 +4 +4

Repeated subtraction: 24-4= 20, 20-4=16, 16-4=12, 12-4=8, 8-4=4, 4-4=0

Number line: Four equal jumps forward from 0 on the number line to 24

Six equal jumps forward from 0 on the number line to 24



TOWNSHIP OF UNION PUBLIC SCHOOLS

Mathematics Grade 4
Curricular Framework – Units 1 and 2

Curriculum Guide

2016

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.

Statement of District Goals

- **Develop reading, writing, speaking, listening, and mathematical skills.**
- **Develop a pride in work and a feeling of self-worth, self-reliance, and self-discipline.**
- **Acquire and use the skills and habits involved in critical and constructive thinking.**
- **Develop a code of behavior based on moral and ethical principles.**
- **Work with others cooperatively.**
- **Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.**
- **Acquire a knowledge and understanding of the physical and biological sciences.**
- **Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.**
- **Appreciate and understand literature, art, music, and other cultural activities.**
- **Develop an understanding of the historical and cultural heritage.**
- **Develop a concern for the proper use and/or preservation of natural resources.**
- **Develop basic skills in sports and other forms of recreation.**

Pacing Guide

Content	Number of Days
Unit 1	45
Unit 2	45
Unit 3	45
Unit 4	45

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
◻ 4.OA.B.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Whole numbers are a multiple of each of its factors. • Prime numbers do not have factors other than 1 and the number itself. Students are able to: • find all factor pairs for any whole number (between 1 and 100). • given a one-digit number, determine whether a given whole number (between 1 and 100) is a multiple of the one-digit number. • determine whether a given whole number (between 1 and 100) is prime or composite. Learning Goal 1: Find all factor pairs for a whole number up to 100 and determine whether it is a multiple of a given 1-digit whole number and whether it is prime or composite.
◎ 4.OA.C.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*	MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Patterns contain features that are not explicitly stated in the rule defining the numerical pattern. Students are able to: • produce number patterns from a given rule. • produce shape patterns from a given rule. • analyze a sequence of numbers in order to identify features that are not obvious explicitly stated in the rule. Learning Goal 2: Generate a number or shape pattern that follows a rule and identify features of the pattern that are not explicit in the rule.
■ 4.OA.A.1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal	MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics.	Concept(s): • Multiplication equations represent comparisons. Students are able to: • explain multiplication equations as comparisons. • write multiplication equations given word problems indicating multiplicative

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
statements of multiplicative comparisons as multiplication equations.		comparison. Learning Goal 4: Write multiplication equations from word problems indicating multiplicative comparisons and describe multiplication equations as comparisons.
■ 4.OA.A.2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): No new concept(s) introduced Students are able to: • multiply to solve word problems involving multiplicative comparison. • divide to solve word problems involving multiplicative comparison. • represent problems with drawings and equations, using a symbol for the unknown number. • distinguish word problems involving multiplicative comparison from those involving additive comparison. Learning Goal 5: Multiply and divide to solve word problems involving multiplicative comparisons and represent these problems with drawings and equations.
■ 4.NBT.A.1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.* [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]	MP.7 Look for and make use of structure.	Concept(s): • A quantitative relationship exists between the digits in place value positions of a multi-digit number. Students are able to: • Explain that a digit in one place represents ten times what it would represent in the place to its right. Learning Goal 6: For a whole number up to one million, explain that a digit in one place represents ten times what it would represent in the place to its right.
■ 4.NBT.A.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =,	MP.7 Look for and make use of structure.	Concept(s): • Multiple representations of whole numbers exist. Students are able to: • read and write multi-digit whole numbers using base-ten numerals. • read and write multi-digit whole numbers using number names. • read and write multi-digit whole numbers using expanded form.

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
and < symbols to record the results of comparisons. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]		• compare two multi-digit numbers using >, =, and < symbols. Learning Goal 7: Compare two multi-digit whole numbers (up to one million) using >, =, and < for numbers presented as base ten numerals, number names, and/or in expanded form.
■ 4.NBT.A.3. Use place value understanding to round multi-digit whole numbers to any place. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]	MP.7 Look for and make use of structure.	Concept(s): • Estimation Students are able to: • round whole numbers to any place. Learning Goal 8: Round multi-digit whole numbers up to one million to any place.
■ 4.NBT.B.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm. *[Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.] *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • add multi-digit whole numbers using the standard algorithm with accuracy and efficiency. • subtract multi-digit whole numbers using the standard algorithm with accuracy and efficiency. Learning Goal 1: Fluently add and subtract multi-digit whole numbers using the standard algorithm.
■ 4.NBT.B.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: • multiply a whole number of up to four digits by a one-digit whole number using strategies based on place values. • multiply two two-digit numbers using strategies based on place value. • represent these operations with equations, rectangular arrays, and area models. • explain the calculation by referring to the model (equation, array, or area

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
[Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]		model). Learning Goal 2: Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers; represent and explain calculations using equations, rectangular arrays, and area models.
■ 4.NBT.B.6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.]	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors using strategies based on place value, the properties of operations, and the relationship between multiplication and division. • represent these operations with equations, rectangular arrays, and area models. • explain the calculation by referring to the model (equation, array, or area model). Learning Goal 3: Divide a whole number of up to four-digits by a one-digit divisor; represent and explain the calculation using equations, rectangular arrays, and area models.
■ 4.OA.A.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.	Concept(s): • Proper use of the equal sign • Improper use of the equal sign (e.g. $3 + 7 = 10 - 5 = 5$ is incorrect) Students are able to:

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. *(benchmarked)	MP.4 Model with mathematics. MP.7 Look for and make use of structure.	• solve multi-step word problems involving any of the four operations. • solve multi-step word problems involving interpretation (in context) of a remainder. • write equations to represent multi-step word problems, using a letter to represent the unknown quantity. • explain why an answer is reasonable. • use mental computation and estimation strategies to determine whether an answer is reasonable. Learning Goal 4: Write and solve each equation (including any of the four operations) in order to solve multi-step word problems, using a letter to represent the unknown; interpret remainders in context and assess the reasonableness of answers using mental computation with estimation strategies.

Unit 1 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**

Township of Union -Unit 1 Grade 4	
District/School Formative Assessment Plan	**District/School Summative Assessment Plan**
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. -Sum Sense Smartboard Game (Addition and Subtraction) -Fluency Fact Quizzes (Multiplication facts 0-12) -Product Pile Up (Multiplication Center Game) -Sum Sense Smartboard Game (Multiplication and Division) -Exit Slips throughout each chapter based on EACH new skill taught (given BEFORE the mid-chapter checkpoint AND after; also given BEFORE Go Math Chapter Test) -Reteach/Enrich Supplemental worksheets (to help classify different abilities) -Small group direct instruction for struggling learners -One-on-one instruction (as needed) -Communicating in pairs, small group, or whole group presentations -Teacher observation -Student reflections/quick-writes on a particular lesson/skill -Homework	***Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.*** -Go Math Mid-Chapter Checkpoints -Chapters 1-5 (use as quiz grade) -Go Math Chapter Tests – Chapters 1-5 (use as test grade) -PARCC-style assessments, including extended constructed responses (ECR) -Projects -Benchmark Assessments -PARCC Assessment
Focus Mathematical Concepts	

Districts should consider listing prerequisites skills. Concepts that include a focus on relationships and representation might be listed as grade level appropriate.
Prerequisite skills: Reading and writing whole numbers up to the thousands; subtraction of multi-digit numbers with regrouping; subtraction of whole numbers across zeroes

Common Misconceptions: Students learn multiplication facts 0-12 and are expected to "master" this ability by the end of 3rd grade; however, from year to year there is a clear deficiency with facts 6-12 that require months of drill practice before fluency occurs

Number Fluency (for grades K-5):

Grade	Required Fluencies
K	Add/Subtract within 5
1	Add/Subtract within 10
2	Add/ Subtract within 20
3	Add/Subtract within 1,000; Multiplication and Division Facts 0-10
4	Fluently add and subtract multi-digit whole numbers using the standard algorithm ; Multiplication and Division Facts 0-12

District/School Tasks	District/School Primary and Supplementary Resources
Exemplar tasks or illustrative models could be provided. -iReady math practice -Animated Go Math models -Grab and Go activities (Go Math) -Using technological resources and other 21st century skills to support and enhance mathematical understanding -Using connections between pictures, oral language, written symbols, manipulative models, and real-world situations -Classroom economy system in which students "do" math (exchanging money, balancing checkbook, etc)	***District/school resources and supplementary resources that are texts as well as digital resources used to support the instruction.*** -ECR resource book (grade level coordinator OR designated "math person" will house in their room) -iReady website - Sum Sense Addition Practice http://resources.oswego.org/games/SumSense/sumadd.html -Sum Sense Subtraction Practice http://www.oswego.org/ocsd-web/games/SumSense/sumsub.html - Sum Sense Multiplication Practice http://www.oswego.org/ocsd-web/games/SumSense/summulti.html -Sum Sense Division Practice http://www.oswego.org/ocsd-web/games/SumSense/sumdiv.html -Illustrative Mathematics https://www.illustrativemathematics.org/

	More Supplemental websites (various operations): http://www.mathplayground.com/grade_4_games.html http://www.math-play.com/4th-grade-math-games.html http://www.abcya.com/fourth_grade_computers.htm

Instructional Best Practices and Exemplars

This is a place to capture examples of standards integration and instructional best practices.

-Daily "Do Now" warm up

-Explicit teacher modeling of how to provide appropriate rationales for math work

-Turn and Talk

-Student modeling for struggling learners to learn from their peers

-Encouraging and facilitating the sharing of mathematical ideas, discussing mathematics amongst each other, and how to refine and critique each other's ideas and understandings

-Making interdisciplinary connections using reading texts

-Classroom economy system in which students "do" math (exchanging money, balancing checkbook, etc)

-Differentiated instruction based on students individual needs such as, but not limited to:

*Extra time for assigned tasks

*Timeline with due dates for projects

*Provide lecture notes/ outline

*Help students verbalize steps

*Repeat, clarify or reword instructions

*Mini breaks between tasks

*Visual and verbal reminders

*Provide immediate feedback

*Computer/whiteboard assistance

Unit 2 Grade 4		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
■ 4.NF.A.1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): • Equivalent fractions are the same size while the number and size of the parts differ. Students are able to: • explain, using visual fraction models, why two fractions are equivalent. • generate equivalent fractions, using fraction a/b as equivalent to fraction $(n \times a)/(n \times b)$. Learning Goal 6: Recognize and generate equivalent fractions and explain why they are equivalent using visual fraction models.
■ 4.NF.A.2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): • Fractions may only be compared when the two fractions refer to the same whole. Students are able to: • create common denominators in order to compare two fractions. • create common numerators in order to compare two fractions. • compare two fractions with different numerators and different denominators by comparing to a benchmark fraction. • record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. Learning Goal 7: Compare two fractions with different numerators or different denominators, recording comparison with >, =, or <, and justifying the conclusion using visual fraction models.
■ 4.NF.B.3. Understand a fraction	MP.1 Make sense of problems and	Concept(s):

a/b with $a > 1$ as a sum of fractions $1/b$. 4.NF.B.3a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. 4.NF.B.3b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples: 3/8 = 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.* [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	• Some fractions can be decomposed. • Addition/subtraction of fractions is joining/separating parts referring to the same whole. Students are able to: • decompose a fraction into a sum of fractions with the same denominator in more than one way. • write decompositions of fractions as an equation. • develop visual fraction models that represent decomposed fractions and use them to justify decompositions. Learning Goal 8: Decompose a fraction into a sum of fractions with the same denominator in more than one way and record the decomposition as an equation; justify the decomposition with a visual fraction model.
■ 4.NF.B.3. Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. 4.NF.B.3c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. 4.NF.B.3d. Solve word	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): • Some fractions can be decomposed. • Addition/subtraction of fractions is joining/separating parts referring to the same whole. Students are able to: • add and subtract fractions having like denominators in order to solve real world problems. • develop visual fraction models and write equations to represent real world problems involving addition and subtraction of fractions. • add and subtract mixed numbers with like denominators. Learning Goal 1: Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction or

problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem. [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]		improper fraction. Learning Goal 2: Solve word problems involving addition and subtraction of fractions having like denominators using visual fraction models and equations to represent the problem.
4.NF.C.5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.* [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	MP.7 Look for and make use of structure.	Concept(s): • Equivalent Fractions Students are able to: • add two fractions with respective denominators of 10 and 100 using equivalent fractions. Learning Goal 7: Add two fractions with respective denominators of 10 and 100 by writing each fraction with denominator 100.
4.NF.C.6. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.* [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	MP.7 Look for and make use of structure.	Concept(s): • Relationship between place value (decimals) and fraction Students are able to: • write a decimal as a fraction that has a denominator of 10 or 100. Learning Goal 8: Given decimal notation, write fractions having denominators of 10 or 100.

4.NF.C.7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. [Grade 4 expectations in this domain are limited to denominators of 2, 3, 4, 5, 6, 8, 10, 12 and 100.]	MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: • represent a decimal using a model. • compare two decimals to hundredths by reasoning about their size. • explain that comparisons are valid only when the two decimals refer to the same whole. • record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using a visual model). Learning Goal 9: Compare two decimals to hundredths by reasoning about their size, demonstrating that comparisons are valid only when the two decimals refer to the same whole; record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Township of Union- Unit 2 Grade 4	
District/School Formative Assessment Plan	**District/School Summative Assessment Plan**
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. -Exit Slips throughout each chapter based on EACH new skill taught (given BEFORE the mid-chapter checkpoint AND after; also given BEFORE Go Math Chapter Test) -Reteach/Enrich Supplemental worksheets (to help classify different abilities) -Small group direct instruction for struggling learners -One-on-one instruction (as needed) -Communicating in pairs, small group, or whole group presentations -Teacher observation -Student reflections/quick-writes on a particular lesson/skill -Homework	***Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.*** -Go Math Mid-Chapter Checkpoints -Chapters 6,9, and 7 (use as quiz grade) -Go Math Chapter Tests – Chapters 6,9, and 7 (use as test grade) -PARCC-style assessments, including extended constructed responses (ECR) -Projects -Benchmark Assessments -PARCC Assessment

Focus Mathematical Concepts

Districts should consider listing prerequisites skills. Concepts that include a focus on relationships and representation might be listed as grade level appropriate.

Prerequisite skills: Understanding of fractions as numbers.

Common Misconceptions:

4.NF.1-2

Students think that when generating equivalent fractions they need to multiply or divide either the numerator or denominator, such as, changing 1/2 to sixths. They would multiply the denominator by 3 to get 1/6, instead of multiplying the numerator by 3 also.
Their focus is only on the multiple of the denominator, not the whole fraction. It's important that students use a fraction in the form of one such as 3/3 so that the numerator and denominator do not contain the original numerator or denominator.

4.NB.3-4
Students think that it does not matter which model to use when finding the sum or difference of fractions. They may represent one fraction with a rectangle and the other fraction with a circle. They need to know that the models need to represent the same whole.

4.NF.5-7
Students treat decimals as whole numbers when making comparison of two decimals. They think the longer the number, the greater the value. For example, they think that .03 is greater than 0.3.

Number Fluency (for grades K-5):

Grade	Required Fluencies
K	Add/Subtract within 5
1	Add/Subtract within 10
2	Add/ Subtract within 20
3	Add/Subtract within 1,000; Multiplication and Division Facts 0-10
4	Fluently add and subtract multi-digit whole numbers using the standard algorithm ; Multiplication and Division Facts 0-12

District/School Tasks	District/School Primary and Supplementary Resources
Exemplar tasks or illustrative models could be provided. -iReady math practice -Animated Go Math models -Grab and Go activities (Go Math) -Using technological resources and other 21st century skills to support and enhance mathematical understanding -Using connections between pictures, oral language, written symbols, manipulative models, and real-world situations	***District/school resources and supplementary resources that are texts as well as digital resources used to support the instruction.*** -ECR resource book (grade level coordinator OR designated "math person" will house in their room) -iReady website -Illustrative Mathematics https://www.illustrativemathematics.org/ More Supplemental websites (various operations):

-Classroom economy system in which students "do" math (exchanging money, balancing checkbook, etc)	http://www.mathplayground.com/grade_4_games.html http://www.math-play.com/4th-grade-math-games.html http://www.abcya.com/fourth_grade_computers.htm

Instructional Best Practices and Exemplars

This is a place to capture examples of standards integration and instructional best practices.

-Daily "Do Now" warm up

-Explicit teacher modeling of how to provide appropriate rationales for math work

-Turn and Talk

-Student modeling for struggling learners to learn from their peers

-Encouraging and facilitating the sharing of mathematical ideas, discussing mathematics amongst each other, and how to refine and critique each other's ideas and understandings

-Making interdisciplinary connections using reading texts

-Classroom economy system in which students "do" math (exchanging money, balancing checkbook, etc)

-Differentiated instruction based on students individual needs such as, but not limited to:

*Extra time for assigned tasks

*Timeline with due dates for projects

*Provide lecture notes/ outline

*Help students verbalize steps

*Repeat, clarify or reword instructions

*Mini breaks between tasks

*Visual and verbal reminders

*Provide immediate feedback

*Computer/whiteboard assistance

TOWNSHIP OF UNION PUBLIC SCHOOLS

Language Arts Grade 5

Units 1 & 2

Curriculum Guide

2016-17

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.

Statement of District Goals

- Develop reading, writing, speaking, listening, and mathematical skills.
- Develop a pride in work and a feeling of self-worth, self-reliance, and self-discipline.
- Acquire and use the skills and habits involved in critical and constructive thinking.
- Develop a code of behavior based on moral and ethical principles.
- Work with others cooperatively.
- Acquire a knowledge and appreciation of the historical record of human achievement and failures and current societal issues.
- Acquire a knowledge and understanding of the physical and biological sciences.
- Participate effectively and efficiently in economic life and the development of skills to enter a specific field of work.
- Appreciate and understand literature, art, music, and other cultural activities.
- Develop an understanding of the historical and cultural heritage.
- Develop a concern for the proper use and/or preservation of natural resources.
- Develop basic skills in sports and other forms of recreation.

Pacing Guide

Content	Number of Days
Unit 1	45
Unit 2	45
Unit 3	45
Unit 4	45

Overview	Reading	Writing	Speaking and Listening	Language
Unit 1	Primary Focus Standards: RL.5.1 RI.5.1 RF.5.3A RL.5.2 RI.5.2 RF.5.4A,B,C RL.5.4 RI.5.4 RL.5.6 RI.5.6	Primary Focus Standards: W.5.1A,B,C,D W.5.4 W.5.5 W.5.6 W.5.7 W.5.10	Primary Focus Standards: SL.5.1A,B,C,D SL.5.6	Primary Focus Standards: L.5.1A,B L.5.2A,E L.5.4A,C L.5.6
	Text Type: (fiction and nonfiction) • 1 Extended Text • 3-6 shorter texts depending upon length and complexity	Writing Genre: • Opinion/ research writing • Routine writing	Task Types: • Small and whole group discussions	These standards are embedded within the writing process
Unit 2	Primary Focus Standards: RL.5.1 RI.5.1 RF.5.3A RL.5.2 RI.5.2 RF.5.4A,B,C RI.5.3 RI.5.4 RI.5.5 RI.5.6 RI.5.7 RI.5.8 RI.5.9	Primary Focus Standards: W.5.2A,B,C,D,E W.5.4 W.5.5 W.5.6 W.5.8 W.5.10	Primary Focus Standards: SL.5.1A,B,C,D SL.5.2 SL.5.3 SL.5.6	Primary Focus Standards: L.5.1A,C L.5.2B,E L.5.3A,B L.5.4A,C L.5.6
	Text Type: (fiction and nonfiction) • 1 Extended Text • 3-6 shorter texts depending upon length and complexity	Writing Genre: • Research/informative • Routine writing	Task Type: • Project-based presentations focusing on use of multimedia and visual displays	These standards are embedded within the writing process
Unit 3	Primary Focus Standards: RL.5.1 RI.5. RF.5.3A RL.5.2 1RI.5 RF.5.4A,B,C RL.5.3 .2 RL.5.4 RL.5.5 RL.5.6 RL.5.7	Primary Focus Standards: W.5.3A,B,C,D,E W.5.4 W.5.5 W.5.6 W.5.9 W.5.10	Primary Focus Standards: SL.5.1A,B,C,D SL.5.2 SL.5.4 SL.5.6	Primary Focus Standards: L.5.1A,D L.5.2C,E L.5.4A,C L.5.5A,B,C L.5.6

Overview	Reading	Writing	Speaking and Listening	Language
	RL.5.9			
	Text Type: (fiction and nonfiction) • 1 - 2 Extended Texts • 4-8 shorter texts depending upon length and complexity	Writing Genre: • Narrative • Research/literary analysis • Routine writing	Task Type: • Present in small groups and to whole class.	These standards are embedded within the writing process.
Unit 4	Primary Focus Standards: RL.5.1 RI.5.1 RF.5.3A RL.5.2 RI.5.2 RF.5.4A,B,C RL.5.4 RI.5.4 RL.5.5 RI.5.5 RL.5.6 RI.5.6 RL.5.10 RI.5.10	Primary Focus Standards: W.5.2A,B,C,D,E W.5.4 W.5.5 W.5.6 W.5.10 Select at least one from W.5.7, W.5.8, W.5.9	Primary Focus Standards: SL.5.1A,B,C,D SL.5.5 SL.5.6	Primary Focus Standards: L.5.1A,B,C,D L.5.2D,E L.5.4A,B,C L.5.6
	Text Type: (fiction and nonfiction) • 1 Extended Text • 3-6 shorter texts depending upon length and complexity	Writing Genre: • Research/Informative and Explanatory • Routine Writing	Task type: • Debates • Present in small groups and to whole class	These standards are embedded within the writing process

Overview	Reading	Writing	Speaking and Listening	Language
Suggested Open Educational Resources	Reading • North Carolina-5th Gr. ELA Unpacking the Standards • PARCC Evidence Tables • Point of View Video • Main Idea Practice • Inference Practice • Read Aloud Strategy • Circle Plot Diagram • Fluency Packet	Writing/Language • Brainstorm before Writing • Conferencing Video • Writing Narratives • Narrative Lessons • Compare/Contrast Map • Essay Map • Implementing the Writing Process • Mini Lessons • Writing Samples • Spelling practice • Various ELA Practices • Word Relationships • Grammar Practice • More Grammar Practice • Flocabulary • Context Clues	Speaking & Listening • Notes for Discussions Video • Text Talk Time • Literature Circles • Speaking and Listening Rubric • In Character Presentation • Crafting a Persuasive Speech • New Report	Critical Thinking • Current Event Articles • Smithsonian TweenTribune • Newsela • Critical Thinking • HandbookCritical Thinking • Lessons in Literacy • Whole Brain Teaching Video • Critical Thinking Lesson Plans

Unit 1 Grade 5		
Unit 1 Reading Standards		**Unit 1 Reading Critical Knowledge and Skills**
RL.5.1. Quote accurately from a text, and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.	RI.5.1. Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.	• Read texts closely (questioning, determining importance, looking for patterns) to make meaning of what was read • Make personal connections, make connections to other texts, and/or make global connections when relevant • Use quotes or references from a text when explaining what the text says explicitly and/or when explaining inferences drawn from the text
RL.5.2. Determine the key details in a story, drama or poem to identify the theme and to summarize the text.	RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	RL.5.2: • Identify the key details in a text • Analyze the actions and thoughts of characters or speakers in texts, looking for patterns • Identify the theme of the text • Determine central message or theme

Unit 1 Grade 5		
		RI.5.2: • Summarize the key points of a text • Identify details to support the main idea • Identify at least two main ideas in informational texts • Explain how the author supports main ideas in informational text with key details
RL.5.4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	RI.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	• Demonstrate the ability to determine the meaning of words and phrases as they are used in a text (e.g., figurative, academic, domain-specific) • Identify metaphors and similes • Analyze similes and metaphors in text and how it impacts the reader
RL.5.6. Describe how a narrator's or speaker's point of view influences how events are described.	RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.	RL.5.6: • Identify the narrator's point of view • Explain how the point of view impacts the events in the text
		RI.5.6: • Discuss the similarities and differences unique to the various perspectives presented in text • Give descriptions about how the information is presented for each perspective
RF.5.3. Know and apply grade-level phonics and word analysis skills in decoding words. RF.5.3.A. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.		• Identify specific strategies for decoding words in texts • Apply the specific strategies for decoding and spelling multisyllabic words
RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4.A. Read grade-level text with purpose and understanding. RF.5.4.B. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. RF.5.4.C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.		• Use various strategies to understand text and read with purpose • Accurately read grade-level poetry and prose aloud • Use an appropriate rate and expression when reading aloud • Use various strategies to support word recognition and understanding • Reread texts when appropriate to support increased accuracy, fluency, and comprehension
Unit 1 Writing Standards		**Unit 1 Writing Critical Knowledge and Skills**
W.5.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.5.1.A. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. W.5.1.B. Provide logically ordered reasons that are supported by facts and details from text(s), quote directly from text when appropriate.		• Distinguish fact from opinions • Organize text by using a specific organizational structure(i.e.: cause/effect chronological order, etc) • Group supporting details to support the writer's purpose • Introduce a topic or text clearly • State an opinion to be supported with evidence • Write a thesis statement to focus the writing

Unit 1 Grade 5	
W.5.1.C. Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically). W.5.1.D. Provide a conclusion related to the opinion presented.	• Organize ideas into a specific structure in which ideas are logically grouped to support the writer's purpose • Logically order reasons that are supported by facts and details • Quote directly from text when appropriate • Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically) • Provide a conclusion or section related to the opinion presented
W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)	• Produce writing that is clear and understandable to the reader • Unpack writing tasks (type of writing assignment) • Unpack writing purpose (the writer's designated reason for writing) • Focus the organization and development of a topic to reflect the task and purpose
W.5.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)	• Practice revising and editing skills • Change word choice and sentence structure in writing to strengthen the piece • Use a variety of graphic organizers (story frames, story mountains, story maps) to assist with developing a plan for writing • Recognize spelling, grammar, and punctuation errors • Employ strategies for correcting errors with assistance (conferences, check sheets, peer editing)
W.5.6. With some guidance and support from adults and peers, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.	• Use digital tools to collaborate on written works • Ask for guidance when appropriate • Use technology for producing and publishing writing, and collaborating with others • Demonstrate keyboarding skills
W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different perspectives of a topic.	• Research a topic through investigation of the topic • Explore a topic in greater detail by developing a research question that helps bring focus to the topic • Gather information from multiple sources to support a topic • Select relevant information from texts to support main ideas or claims • Group like ideas to organize writing
W.5.10. Write routinely over extended time frames (time for research, reflection, metacognition/self-correction and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	• Produce numerous pieces of writing over various time frames • Develop skills in research • Reflect on the choices made while writing • Reflect on and revise writing • Develop a topic related to the content area they are writing about to reflect task, audience, and purpose

Unit 1 Grade 5	
Unit 1 Speaking and Listening Standards	**Unit 1 Speaking and Listening Critical Knowledge and Skills**
SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1.A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. SL.5.1.B. Follow agreed-upon rules for discussions and carry out assigned roles. SL.5.1.C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1.D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	• Use previous knowledge to expand discussions about a topic • Engage in conversations about grade-appropriate topics and texts • Participate in a variety of rich, structured conversations • Engage as part of a whole class, in small groups, and with a partner, sharing the roles of participant, leader, and observer • Engage in collaborative conversations (such as book groups, literature circles, buddy reading), and develop skills in active (close) listening and group discussion (looking at the speaker, turn taking, linking ideas to the speaker's idea, sharing the floor, etc)
SL.5.6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 here for specific expectations.)	• Speak for a variety of purposes • Distinguish between formal and informal discourse • Adapt speech to a variety of contexts and tasks
Unit 1 Language Standards	**Unit 1 Language Critical Knowledge and Skills**
L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1.A. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1.B. Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses.	• Define conjunctions, prepositions, and interjections • Identify conjunctions, prepositions, and interjections in sentences • Explain the purpose of conjunctions, prepositions, and interjections in sentences • Identify the tense of verbs • Identify perfect verb tenses in writing • Conjugate verbs using the perfect verb tenses
L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2.A. Use punctuation to separate items in a series.* L.5.2.E. Spell grade-appropriate words correctly, consulting references as needed.	• Define and identify items in a series • Separate items in a series using appropriate punctuation • Spell grade-appropriate words correctly • Use references as needed to aid in spelling
L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.4.4.A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of keywords and phrases	• Decipher the meanings of words and phrases by using sentence context • Identify the purpose and use of glossaries and dictionaries • Determine the structure of glossaries and dictionaries • Use both print and digital glossaries and dictionaries to define and clarify words
L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other	• Use 5th grade vocabulary fluently when discussing academic or domain-specific topics

<table>
<tr><th colspan="3">Unit 1 Grade 5</th></tr>
<tr><td colspan="2">logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition).</td><td>• Choose the most accurate word when describing contrast, addition, or other relationships
• Choose the most accurate word when discussing a particular topic
• Use knowledge of conjunctions to broaden vocabulary</td></tr>
<tr><th colspan="3">Unit 1 Grade 5 Township of Union Instructional Unit</th></tr>
<tr><th colspan="2">District/School Formative Assessment Plan</th><th>District/School Summative Assessment Plan</th></tr>
<tr><td colspan="2">• Exit Tickets
• Unit Tests
• Quizzes
• Summaries/Reflections
• Text Dependent Questions</td><td>• Edconnect
• Iready diagnostics
• End of Unit Tests</td></tr>
<tr><th colspan="2">District/School Texts</th><th>District/School Supplementary Resources</th></tr>
<tr><td colspan="2">• Wonders Texts
• Strategies for Writers</td><td>• Storyworks
• Common Core Writing to Texts
• Grade Level Writing Guide</td></tr>
<tr><th colspan="3">District/School Writing Tasks</th></tr>
<tr><td>Primary Focus
• Opinion
• Narrative
• Informative</td><td>Secondary Focus
• Writing to one text
• Writing to multiple texts</td><td>Routine Writing
• RAPP
• Journal
• Everyday responses during class</td></tr>
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Text Exemplars

Stories

Carroll, Lewis. *Alice's* Adventures in Wonderland

Burnett, Frances Hodgson. The Secret Garden

Farley, Walter. The Black Stallion

Saint-Exupéry, Antoine de. The Little Prince

Babbitt, Natalie. Tuck Everlasting

Singer, Isaac Bashevis. "Zlateh the Goat."

Hamilton, Virginia. M. C. Higgins, the Great

Erdrich, Louise. The Birchbark House

Curtis, Christopher Paul. Bud, Not Buddy

Lin, Grace. Where the Mountain Meets the Moon

Poetry

Blake, William. "The Echoing Green."

Lazarus, Emma. "The New Colossus."

Thayer, Ernest Lawrence. "Casey at the Bat."

Dickinson, Emily. "A Bird Came Down the Walk."

Sandburg, Carl. "Fog."

Frost, Robert. "Dust of Snow."

Dahl, Roald. "Little Red Riding Hood and the Wolf."

Nichols, Grace. "They Were My People."

Mora, Pat. "Words Free As Confetti."

Informational Texts

Berger, Melvin. Discovering Mars: The Amazing Story of the Red Planet

Carlisle, Madelyn Wood. *Let's* Investigate Marvelously Meaningful Maps

Lauber, Patricia. Hurricanes: *Earth's* Mightiest Storms

Otfinoski, Steve. The Kid's Guide to Money: Earning It,***Saving It, Spending It, Growing It, Sharing It***

Wulffson, Don. *Toys!:* Amazing Stories Behind Some Great Inventions

Schleichert, Elizabeth. "Good Pet, Bad Pet."

Kavash, E. Barrie. "Ancient Mound Builders."

Koscielniak, Bruce. About Time: A First Look at *Time* and Clocks

Banting, Erinn. England the Land

Hakim, Joy. A History of US

Ruurs, Margriet. My Librarian Is a Camel: How Books ***Are Brought to Children Around the World***

Simon, Seymour. Horses

Unit 2 Grade 5		
Unit 2 Reading Standards		**Unit 2 Reading Critical Knowledge and Skills**
RL.5.1. Quote accurately from a text, and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.	RI.5.1. Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.	• Read texts closely (questioning, determining importance, looking for patterns) to make meaning of what was read • Make personal connections, make connections to other texts, and/or make global connections when relevant • Use quotes or references from a text when explaining what the text says explicitly and/or when explaining inferences drawn from the text
RL.5.2. Determine the key details in a story, drama or poem to identify the theme and to summarize the text.	RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	RL.5.2: • Identify the key details in a text • Analyze the actions and thoughts of characters or speakers in texts, looking for patterns • Identify the theme of the text • Determine central message or theme
		RI.5.2: • Summarize the key points of a text • Identify details to support the main idea • Identify at least two main ideas in informational texts • Explain how the author supports main ideas in informational text with key details
	RI.5.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.	• Identify the relationships or interactions between people, places and ideas in text • Explain the relationship to analyze the text
	RI.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	• Demonstrate the ability to determine the meaning of words and phrases as they are used in a text (e.g., figurative, academic, domain-specific) • Identify metaphors and similes • Analyze similes and metaphors in text and how it impacts the reader
	RI.5.5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.	• Find the similarities and differences in the structure of two or more texts • Determine the impact of the structure on text meaning

Unit 2 Grade 5		
	RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.	RI.5.6: • Discuss the similarities and differences unique to the various perspectives presented in text • Give descriptions about how the information is presented for each perspective
	RI.5.7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.	• Read texts closely to determine the main ideas and important details • Synthesize information from multiple sources • Use media efficiently to answer questions and to solve problems
	RI.5.8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	• Identify the points or claims an author makes in a text • Identify reasons and evidence for those points or claims made • Prove each point with evidence from the text • Explain how an author uses proof to support a point in the text
	RI.5.9 Integrate and reflect on (e.g. practical knowledge, historical/cultural context, and background knowledge) information from several texts on the same topic in order to write or speak about the subject knowledgeably.	• Find similarities and differences in themes and topics when reading stories of the same genre • Connect the text to other knowledge (e.g. practical knowledge, historical/cultural context, and background knowledge) • Combine information from several texts about the same subject in a written or oral response that demonstrates knowledge of the subject
RF.5.3. Know and apply grade-level phonics and word analysis skills in decoding words. RF.5.3.A. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.		• Identify specific strategies for decoding words in texts • Apply the specific strategies for decoding and spelling multisyllabic words
RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4.A. Read grade-level text with purpose and understanding. RF.5.4.B. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. RF.5.4.C. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.		• Use various strategies to understand text and read with purpose • Accurately read grade-level poetry and prose aloud • Use an appropriate rate and expression when reading aloud • Use various strategies to support word recognition and understanding • Reread texts when appropriate to support increased accuracy, fluency, and comprehension
Unit 2 Writing Standards		**Unit 2 Writing Critical Knowledge and Skills**
W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.5.2.A. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include text features (e.g.,		• Organize ideas using various strategies • Introduce a topic clearly • Compose a clear thesis statement • Provide a general observation and focus

Unit 2 Grade 5	
headings), illustrations, and multimedia when useful to aiding comprehension. W.5.2.B. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.5.2.C.Link ideas within paragraphs or sections of information using words, phrases, and clauses (e.g., in contrast, especially). W.5.2.D. Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2.E. Provide a conclusion related to the information or explanation presented.	• Group related information logically • Use text features such as (e.g., headings), illustrations, and multimedia to support the information when appropriate • Purposefully select information to develop the topic • Link ideas within paragraphs and sections of information • Use transitional words, phrases, and clauses • Select specific language and vocabulary to convey ideas and information • Write a conclusion that is related to the information or explanation
W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)	• Produce writing that is clear and understandable to the reader • Unpack writing tasks (type of writing assignment) • Unpack writing purpose (the writer's designated reason for writing) • Focus the organization and development of a topic to reflect the task and purpose
W.5.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)	• Practice revising and editing skills • Change word choice and sentence structure in writing to strengthen the piece • Use a variety of graphic organizers (story frames, story mountains, story maps) to assist with developing a plan for writing • Recognize spelling, grammar, and punctuation errors • Employ strategies for correcting errors with assistance (conferences, check sheets, peer editing)
W.5.6. With some guidance and support from adults and peers, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.	• Use digital tools to collaborate on written works • Ask for guidance when appropriate • Use technology for producing and publishing writing, and collaborating with others • Demonstrate keyboarding skills
W.5.8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.	• Locate information from print and digital sources • Integrate information from personal experiences • Include a list of sources used • Take notes on information gathered from the sources to support the topic • Synthesize information to avoid plagiarism • Organize information into categories
W.5.10. Write routinely over extended time frames (time for research, reflection, metacognition/self-correction and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	• Produce numerous pieces of writing over various time frames • Develop skills in research • Reflect on the choices made while writing • Reflect on and revise writing • Develop a topic related to the content area they are writing about to reflect task,

Unit 2 Grade 5	
	audience, and purpose
Unit 2 Speaking and Listening Standards	**Unit 2 Speaking and Listening Critical Knowledge and Skills**
SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1.A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. SL.5.1.B. Follow agreed-upon rules for discussions and carry out assigned roles. SL.5.1.C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1.D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	• Use previous knowledge to expand discussions about a topic • Engage in conversations about grade-appropriate topics and texts • Participate in a variety of rich, structured conversations • Engage as part of a whole class, in small groups, and with a partner, sharing the roles of participant, leader, and observer • Engage in collaborative conversations (such as book groups, literature circles, buddy reading), and develop skills in active (close) listening and group discussion (looking at the speaker, turn taking, linking ideas to the speaker's idea, sharing the floor, etc)
SL.5.2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally (e.g., visually, quantitatively, and orally).	• Identify the key points and supporting details of a text presented orally • Summarize a written text read aloud or information presented in multiple formats
SL.5.4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	• Report on a topic or text, telling a story, or recounting an event in an organized, logical manner • Present information orally and in coherent, spoken sentences • Use an appropriate pace when presenting • Present and logically support personal opinions
SL.5.6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 here for specific expectations.)	• Speak for a variety of purposes • Distinguish between formal and informal discourse • Adapt speech to a variety of contexts and tasks
Unit 2 Language Standards	**Unit 2 Language Critical Knowledge and Skills**
L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1.A. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1.C. Use verb tense to convey various times, sequences, states, and conditions.	• Define conjunctions, prepositions, and interjections • Identify conjunctions, prepositions, and interjections in sentences • Explain the purpose of conjunctions, prepositions, and interjections in sentences • Identify the tense of verbs describe time, sequences, states, and conditions in reading • Convey various times, sequences, states, and conditions using verb tenses in writing
L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2.B. Use a comma to separate an introductory element from the rest of the sentence. L.5.2.E. Spell grade-appropriate words correctly, consulting references as	• Outline comma rules for setting off introductory words and phrases, the words *yes* and *no,* tag questions, and direct address • Identify introductory words and phrases • Separate an introductory element from the rest of the sentence by using commas

Unit 2 Grade 5	
needed.	• Spell grade-appropriate words correctly • Use references as needed to aid in spelling
L.5.3. Use knowledge of language and its conventions when writing, speaking, or listening. L.5.3.A. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3.B. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.	• Identify sentences in writing that need revision • Revise writing by expanding, combining, and reducing sentences • Determine similarities and differences in the presentation of English used in stories
L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.4.4.A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of keywords and phrases	• Decipher the meanings of words and phrases by using sentence context • Identify the purpose and use of glossaries and dictionaries • Determine the structure of glossaries and dictionaries • Use both print and digital glossaries and dictionaries to define and clarify words
L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).	• Use 5th grade vocabulary fluently when discussing academic or domain-specific topics • Choose the most accurate word when describing contrast, addition, or other relationships • Choose the most accurate word when discussing a particular topic • Use knowledge of conjunctions to broaden vocabulary

Unit 2 Grade 5 Township of Union Instructional Unit	
District/School Formative Assessment Plan	**District/School Summative Assessment Plan**
• *Exit Tickets* • *Unit Tests* • *Quizzes* • *Summaries/Reflections* • *Text Dependent Questions*	• *Edconnect* • *Iready diagnostics* • *End of Unit Tests*
District/School Texts	**District/School Supplementary Resources**
• Wonders Texts • Strategies for Writers	• Storyworks • Common Core Writing to Texts • Grade Level Writing Guide

Unit 2 Grade 5		
District/School Writing Tasks		
Primary Focus • Opinion • Narrative • Informative	**Secondary Focus** • *Writing to one text* • *Writing to multiple texts*	**Routine Writing** • *RAPP* • *Journal* • *Everyday responses during class*

Instructional Best Practices and Exemplars

Text Exemplars

Stories

Carroll, Lewis. *Alice's* Adventures in Wonderland

Burnett, Frances Hodgson. The Secret Garden

Farley, Walter. The Black Stallion

Saint-Exupéry, Antoine de. The Little Prince

Babbitt, Natalie. Tuck Everlasting

Singer, Isaac Bashevis. "Zlateh the Goat."

Hamilton, Virginia. M. C. Higgins, the Great

Erdrich, Louise. The Birchbark House

Curtis, Christopher Paul. Bud, Not Buddy

Lin, Grace. Where the Mountain Meets the Moon

Poetry

Blake, William. "The Echoing Green."

Lazarus, Emma. "The New Colossus."

Thayer, Ernest Lawrence. "Casey at the Bat."

Dickinson, Emily. "A Bird Came Down the Walk."

Sandburg, Carl. "Fog."

Frost, Robert. "Dust of Snow."

Dahl, Roald. "Little Red Riding Hood and the Wolf."

Nichols, Grace. "They Were My People."

Mora, Pat. "Words Free As Confetti."

Informational Texts

Berger, Melvin. Discovering Mars: The Amazing Story of the Red Planet

Carlisle, Madelyn Wood. *Let's* Investigate Marvelously Meaningful Maps

Lauber, Patricia. Hurricanes: *Earth's* Mightiest Storms

Otfinoski, Steve. The Kid's Guide to Money: Earning It ***Saving It, Spending It, Growing It, Sharing It***

Wulffson, Don. *Toys!:* Amazing Stories Behind Some Great Inventions

Schleichert, Elizabeth. "Good Pet, Bad Pet."

Kavash, E. Barrie. "Ancient Mound Builders."

Koscielniak, Bruce. About Time: A First Look at *Time* and Clocks

Banting, Erinn. England the Land

Hakim, Joy. A History of US

Ruurs, Margriet. My Librarian Is a Camel: How Books ***Are Brought to Children Around the World***

Simon, Seymour. Horses