Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

Overview		Unit Focus	Standards for Mathematical Practice
Unit 1 **Add and Subtract within 10**	● 1.OA.A.1* ● 1.OA.B.3* ● 1.OA.B.4 ● 1.OA.C.5 ● 1.OA.D.7* ● 1.OA.D.8* ● 1.NBT.A.1*	● Represent and solve problems involving addition and subtraction ● Understand and apply properties of operations and the relationship between addition and subtraction ● Add and subtract within 10 ● Work with addition and subtraction equations ● Extend the counting sequence	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.
Unit 1: *Suggested Open Educational Resources*	1.OA.A.1 Sharing Markers 1.OA.B.3 Domino Addition 1.OA.B.4 Cave Game Subtraction 1.OA.D.7 Equality Number Sentences 1.OA.D.8 Kiri's Mathematics Match Game 1.NBT.A.1 Hundred Chart Digit Game		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.

Major Supporting Additional (Identified by PARCC Model Content Frameworks).

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

Curriculum Unit 1	Standards		Pacing	
			Days	Unit Days
Unit 1 **Add and Subtract within 10**	● 1.OA.A.1*	Use addition and subtraction <u>within 10</u> to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.	13	45
	● 1.OA.B.3*	Apply properties of operations (commutative property) as strategies to add or subtract <u>within 10.</u>	6	
	● 1.OA.B.4	Solve subtraction problems, <u>within 10</u>, by representing subtraction as an unknown added problem and finding the unknown addend	4	
	● 1.OA.C.5	Count on to add and count backwards to subtract to solve addition and subtraction problems <u>within 10.</u>	4	
	● 1.OA.D.7*	Determine if addition and subtraction equations, <u>within 10,</u> are true or false.	4	
	● 1.OA.D.8*	Solve addition and subtraction equations, <u>within 10</u>, by finding the missing whole number in any position.	4	
	● 1.NBT.A.1*	Count to 100 orally, read and write numerals, and write numerals to represent the number of objects <u>(up to 100).</u>	5	
		Assessment, Re-teach and Extension	5	

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

Unit 1 Grade 1		
Content Standards	**Suggested Standards for Mathematical Practice**	**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 <u>within 10</u> 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 <u>within 10.</u>
● 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, <u>within 10</u>, using unknown addends. Learning Goal 3: Solve subtraction problems, <u>within 10</u>, by representing subtraction as an unknown addend 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 <u>within 10.</u>
● **1.OA.D.7.** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *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.*	MP.2 Reason abstractly and quantitatively. 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): ● 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). 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, <u>within 10,</u> are true or false.
● **1.OA.D.8.** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *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, <u>within 10</u>, 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 <u>up to 100.</u> ● 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 represent the number of objects <u>(up to 100).</u>

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

Unit 1 Grade 1	
School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Pre-Assessment, Quizzes Exit Tickets Daily Monitoring Interactive Notebooks Math Journals Portfolios	Chapter Benchmark LinkIt
Focus Mathematical Concepts	

Prerequisite skills:
Achieve the Core Coherence Map
https://achievethecore.org/coherence-map/

Standards:
1.OA.A.1	K.OA.2
1.OA.B.3	K.OA.3
1.OA.B.4	K.OA.1**,** 1.NBT.4, 1.NBT.6
1.OA.C.5	K.CC.5, K.OA.1
1.OA.D.7	K.OA.3, 1.OA.1
1.OA.D.8	K.OA.4
1.NBT.A.1	K.CC.1

Common Misconceptions:

1.OA.A.1

Many children misunderstand the meaning of the equal sign. The equal sign means "is the same as" but most primary students believe the equal sign tells you that the "answer is coming up" to the right of the equal sign. This misconception is over-generalized by only seeing examples of number sentences with an operation to the left of the equal sign and the answer on the right. A second misconception that many students have is that it is valid to assume that a key word or phrase in a problem suggests the same operation will be used every time. For example, they might assume that the word left always means that subtraction must be used to find a solution. Providing problems in which key words like this are used to represent different operations is essential. For example, the use of the word left in this problem does not indicate subtraction as a solution method: Jose took the 8 stickers he no longer wanted and gave them to Anna. Now Jose has 11 stickers left. How many stickers did Jose have to begin with? Students need to analyze word problems and avoid using key words to solve them.

1.OA.B.3 & 1.OA.B.4

A common misconception is that the commutative property applies to subtraction. After students have discovered and applied the commutative property for addition, ask them to investigate whether this property works for subtraction. Have students share and discuss their reasoning and guide them to conclude that the commutative property does not apply to subtraction. First graders might have informally encountered negative numbers in their lives, so they think they can take away more than the number of items in a given set, resulting in a negative number below zero. Provide many problems situations where students take away all objects from a set, e.g. $19 - 19 = 0$ and focus on the meaning of 0 objects and 0 as a number. Ask students to discuss whether they can take away more objects than what they have.

1.OA.C.5

Students ignore the need for regrouping when subtracting with numbers 0 to 20 and think that they should always subtract a smaller number from a larger number. For example, students solve $15 - 7$ by subtracting 5 from 7 and 0 (0 tens) from 1 to get 12 as the incorrect answer. Students need to relate their understanding of place-value concepts and grouping in tens and ones to their steps for subtraction. They need to show these relationships for each step using mathematical drawings, ten-frames or base-ten blocks so they can understand an efficient strategy for multi-digit subtraction.

1.OA.D.7 & 1.OA.D.8

Many students think that the equals sign means that an operation must be performed on the numbers on the left and the result of this operation is written on the right. They think that the equal sign is like an arrow that means becomes and one number can not be alone on the left. Students often ignore the equal sign in equations that are written in a nontraditional way. For instance, students find the incorrect value for the unknown in the equation $9 = \Delta - 5$ by thinking $9 - 5 = 4$. It is important to provide equations with a single number on the left as in $18 = 10 + 8$. Showing pairs of equations such as $11 = 7 + 4$ and $7 + 4 = 11$ gives students experiences with the meaning of the equal sign as is the same as and equations with one number to the left.

Number Fluency:

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem

1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

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

1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Achieve the Core – GoMath Fluency Activities
https://achievethecore.org/page/2853/go-math-k-5-guidance-documents

Achieve the Core – Fluency Activities
https://achievethecore.org/page/2948/fluency-resources-for-grade-level-routines

Math Coach – Fact Fluency http://schoolwires.henry.k12.ga.us/Page/21865
Math Wire – Basic Facts Link http://mathwire.com/numbersense/bfactslinks.html
Math Fact Practice http://www.playkidsgames.com/games/mathfact/mathFact.htm

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

District/School Tasks	District/School Primary and Supplementary Resources
Examples of CCSS Items - Delaware Comparison Document **Delaware Common Core Item Bank for Mathematics – Grade 1** **http://www.doe.k12.de.us/cms/lib09/DE01922744/Centricity/Domain/111/Math_Grade_1.pdf**	Text – Go Math **Think Central** https://www-k6.thinkcentral.com/ePC/viewResources.do?method=retrieveResources&pageName=resourcepage **XtraMath** https://xtramath.org/ **1st Grade Flipbook** http://community.ksde.org/Default.aspx?tabid=5646 **North Carolina Dept of Ed. Wikispaces:** http://maccss.ncdpi.wikispaces.net/Elementary **101 Math Discourse Questions:** http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf **Asking Effective Questions** http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf **ThinkCentral Personal Math Trainer**

Instructional Best Practices and Exemplars	
1. Identifying similarities and differences 2. Summarizing 3. Reinforcing effort and providing recognition 4. Homework and practice 5. Nonlinguistic representations	6. Cooperative learning 7. Setting objectives and providing feedback 8. Generating and testing hypotheses 9. Cues, questions, and advance organizers 10. Manage response rates

Vocabulary	
1.OA.1 **Represent and solve problems involving addition and subtraction.** add, adding to, taking from, putting together, comparing, unknown, sum, less than, equal to, minus, subtract, the same amount as, counting on, making ten, doubles, equation **1.OA.3 & 4** **Understand and apply properties of operations and the relationship between addition and subtraction.** add, subtract, unknown addend, order, first, second **1.OA.5** **Add and subtract within 20.** addition, putting together, adding to, counting on, making ten, subtraction, taking apart, taking from, sum, unknown, equal, counting on, counting back **1.OA.7 & 8** **Work with addition and subtraction equations.** equation, equal, the same amount/quantity as, true, false, addition, putting together, adding to, counting on, making ten, subtract, taking apart, taking from, sum, unknown	**1.NBT.1** **Extend the counting sequence.** number, zero, one, two…thirteen, fourteen…nineteen...one hundred twenty **Go Math Vocabulary** add, addends, addition sentence, is equal to, order, plus, sum, zero, compare, difference, fewer, minus, more, subtract, subtraction sentence, count on, doubles, doubles plus one, doubles minus one, make a ten, count back, related facts

9.1 Personal Financial Literacy, 9.2 Career Awareness, Exploration, And Preparation and Training 9.4 Life Literacies and Key Skills
9.1.2.FI.1 Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards 9.1.2.FP.1 Explain how emotions influence whether a person spends or saves 9.2.2.CAP.1 Make a list of different types of jobs and describe the skills associated with each job The implementation of the 21st Century skills and standards for students of the Winslow Township District is infused in an interdisciplinary format in a variety of curriculum areas that include, English language Arts, Mathematics, School Guidance, Social Studies, Technology, Visual and Performing Arts, Science, Physical Education and Health, and World Language.: Additional opportunities to address 9.1, 9.2 & 9.4: **Philadelphia Mint** https://www.usmint.gov/learn/kids/resources/educational-standards **Different ways to teach Financial Literacy.** https://www.makeuseof.com/tag/10-interactive-financial-websites-teach-kids-money-management-skills/

Suggested Modifications for Special Education/504

Students with special needs: The students' needs will be addressed on an individual and grade level using a variety of modalities. Accommodations will be made for those students who need extra time to complete assignment. Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended to by all instructional leaders. Physical expectations and modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered.

☐ Provide the opportunity to re-take tests
☐ Modify activities/assignments/projects/assessments
☐ Breakdown activities/assignments/projects/assessments into manageable units
☐ Additional time to complete activities/assignments/projects/assessments
☐ Provide an option for alternative activities/assignments/projects/assessments
☐ Modify Content
☐ Modify Amount
☐ Small Group Intervention/Remediation

☐ Individual Intervention/Remediation
☐ Additional Support Materials
☐ Guided Notes
☐ Graphic Organizers
☐ Adjust Pacing of Content
☐ Increase one on one time
☐ Peer Support
☐ Other Modifications for Special Education:

Suggested Modifications for At-Risk Students

Formative and summative data will be used to monitor student success. At first signs of failure, student work will be reviewed to determine support. This may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations

☐ Provide the opportunity to re-take tests
☐ Increase one on one time
☐ Oral prompts can be given
☐ Using visual demonstrations, illustrations, and models
☐ Give directions/instructions verbally and in simple written format
☐ Peer Support
☐ Modify activities/assignments/projects/assessments
☐ Additional time to complete activities/assignments/projects/assessments
☐ Provide an option for alternative activities/assignments/projects/assessments

☐ Modify Content
☐ Modify Amount
☐ Adjust Pacing of Content
☐ Small Group Intervention/Remediation
☐ Individual Intervention/Remediation
☐ Additional Support Materials
☐ Guided Notes
☐ Graphic Organizers
☐ Other Modifications for Students At-Risk:

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

English Language Learners	Suggested Modifications for Gifted Students
All WIDA Can Do Descriptors can be found at this link: https://wida.wisc.edu/teach/can-do/descriptors ☐ Grades 1 WIDA Can Do Descriptors: ☐ Listening ☐ Speaking ☐ Reading ☐ Writing ☐ Oral Language Students will be provided with accommodations and modifications that may include: • Relate to and identify commonalities in mathematics studies in student's home country • Assist with organization • Use of computer • Emphasize/highlight key concepts • Teacher Modeling • Peer Modeling • Label Classroom Materials - Word Walls	Students excelling in mastery of standards will be challenged with complex, high level challenges related to the topic. • Raise levels of intellectual demands • Require higher order thinking, communication, and leadership skills • Differentiate content, process, or product according to student's readiness, interests, and/or learning styles • Provide higher level texts • Expand use of open-ended, abstract questions • Critical and creative thinking activities that provide an emphasis on research and in-depth study • Enrichment Activities/Project-Based Learning/ Independent Study Additional Strategies may be located at the links: ❖ Gifted Programming Standards ❖ Webb's Depth of Knowledge Levels and/or Revised Bloom's Taxonomy ❖ REVISED Bloom's Taxonomy Action Verbs

Suggested Activities	
☐ Do Now/Warm-Up ☐ Whole Group ☐ Small Groups ☐ Guided Practice ☐ Independent Practice ☐ Daily 5 ☐ CAFÉ	☐ Centers ☐ Intervention/Remediation ☐ Standards Review ☐Academic Games ☐ Other Suggested Activities:

Winslow Schools
Mathematics Curriculum - Grade 1
Unit 1

Interdisciplinary Connections
Go Math Big Idea Vocabulary Reader: Animals in Our World (Math, Reading, Writing, Science) Go Math Real World Project: My Animal Stories (Math and Science) Go Math ThinkCentral STEM Activities (Science) Go Math Cross-Curricular Science and Social Studies questions, experiments, and activities embedded throughout the chapter
Integration of Computer Science and Design Thinking
8.2.2.ITH.3 Identify how technology impacts or improves life. 8.2.2.ITH.4 Identify how various tools reduce work and improve daily tasks. 8.1.2.NI.1   Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2   Describe how the internet enables individuals to connect with others worldwide. 8.1.2.CS.3   Describe basic hardware and software problems using accurate terminology.