Winslow Schools
Mathematics Curriculum - Grade 2
Unit 1

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice
Unit 1 **Add and Subtract within 100 and Understand Place Value to 1000**	• 2.OA.A.1* • 2.OA.B.2* • 2.NBT.A.1 • 2.NBT.A.2* • 2.NBT.A.3 • 2.NBT.A.4 • 2.NBT.B.8	• Represent and solve problems involving addition and subtraction • Add and subtract within 20 • Understand place value • Use place value understanding and properties of operations to add and subtract	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	2.OA.A.1 Pencil and a Sticker 2.OA.B.2 Building toward fluency 2.NBT.A.1 Making 124 2.NBT.A.1 Largest Number Game 2.NBT.A.3 Looking at Numbers Every Which Way 2.NBT.A.4 Ordering 3-digit numbers 2.NBT.B.8 Choral Counting		

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

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Curriculum Unit 1	Standards		Pacing	
			Days	Unit Days
Unit 1 **Add and Subtract within 100 and Understand Place Value to 1000**	• 2.OA.A.1*	Add and subtract within 20 to solve 1- and 2-step word problems with unknowns in any position.	8	45
	• 2.OA.B.2*	Fluently add and subtract within 10 using mental strategies.	7	
	• 2.NBT.A.1	Represent a 3-digit number as specific amounts of *hundreds*, *tens*, and *ones*. 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*).	6	
	• 2.NBT.A.2*	Skip count by 5s and 10s up to 100...beginning at any multiple of 5.	5	
	• 2.NBT.A.3	Read numbers to 1000 using base-ten numerals, number names, and expanded form. Write numbers to 1000 using base-ten numerals, number names, and expanded form.	7	
	• 2.NBT.A.4	Use symbols >, =, < to record the results of comparing two 3-digit numbers by decomposing the number into a number (100s, 10s, and 1s).	5	
	• 2.NBT.B.8	Mentally add or subtract 10 or 100 from any given number between 100 and 900.	3	
		Assessment, Re-teach and Extension	4	

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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." 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).	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. 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, 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.

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School/District Formative Assessment Plan	**School/District Summative Assessment Plan**
Pre-Assessment, Quizzes Exit Tickets Daily Monitoring Interactive Notebook Math Portfolio Go Math Mid Chapter Checkpoint Go Math Show What You Know Go Math Quick Checks	Link It Chapter Assessments Go Math Performance Assessment Task

Focus Mathematical Concepts

Prerequisite skills:

Achieve the Core Coherence Map

https://achievethecore.org/coherence-map/

Standards:

2.OA.A.1	1.OA.1
2.OA.B.2	1.OA.6
2.NBT.A.1	1.NBT.2
2.NBT.A.2	1.NBT.1
2.NBT.A.3	1.NBT.2
2.NBT.A.4	1.NBT.3
2.NBT.B.8	1.NBT.5

Common Misconceptions:

2.OA.A.1

Some students end their solution to a two-step problem after they complete the first step. They may have misunderstood the question or only focused on finding the first part of the problem. Students need to check their work to see if their answer makes sense in terms of the problem situation. They need many opportunities to solve a variety of two-step problems and develop the habit of reviewing their solution after they think they have finished.

2.OA.B.2

Students may over-generalize the idea that answers to addition problems must be greater. Adding 0 to any number results in a sum that is equal to that number. Provide word problems involving 0 and have students model using drawings with an empty space for 0.Students are usually proficient when they focus on a strategy relevant to particular facts. When these facts are mixed with others, students may revert to counting as a strategy and ignore the efficient strategies they learned. Provide a list of facts from two or more strategies and ask students to name a strategy that would work for that fact. Students should be expected to explain why they chose that strategy then show how to use it.

2.NBT.A.1

Some students may not move beyond thinking of the number 358 as 300 ones plus 50 ones plus 8 ones to the concept of 8 singles, 5 bundles of 10 singles or tens, and 3 bundles of 10 tens or hundreds. Use base-ten blocks to model the collecting of 10 ones (singles) to make a ten (a rod) or 10 tens to make a hundred (a flat). It is important that students connect a group of 10 ones with the word ten and a group of 10 tens with the word hundred.

2.NBT.A.3. Students tend to shift place value when there is no value in a given column. (Ex. Writing 106 as 16). Students tend to vertically align numbers from left to right as they read them versus right to left based on place value.

Number Fluency:

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.
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.*
2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s.
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.

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**

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District/School Tasks	District/School Primary and Supplementary Resources
Examples of CCSS Items - Delaware Comparison Document **Delaware DOE Common Core Item Bank for Mathematics – Grade 2** **http://www.doe.k12.de.us/cms/lib09/DE01922744/Centricity/Domain/111/Math_Grade_2-Nov.pdf**	Text – Go Math **Think Central** https://www-k6.thinkcentral.com/ePC/viewResources.do?method=retrieveResources&pageName=resourcepage **North Carolina Dept of Ed. Wikispaces:** http://maccss.ncdpi.wikispaces.net/Elementary **Flip Book** http://community.ksde.org/Default.aspx?tabid=5646 **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 **Xtra Math** https://xtramath.org/#/home/index **Prodigy** https://www.prodigygame.com/Play/

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

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Vocabulary	
2.OA.A.1 Represent and **solve problems involving addition and subtraction.** add, subtract, more, less, equal, equation, putting together, taking from, taking apart, addend, comparing, unknown 2.OA.B.2 **Add and subtract within 20.** add, subtract, sum, more, less, equal, equation, putting together, taking from, taking apart, addend 2.OA.C.3 **Work with equal groups of objects to gain foundations for multiplication.** even numbers, odd numbers	2.NBT.A.1, 2, 3, & 4 **Understand place value.** hundreds, tens, ones, skip count, base-ten, *number names to 1,000* (e.g., one, two, thirty, etc.), expanded form, greater than (>), less than (<), equal to (=), digit, compare 2.NBT.B.8 **Use place value understanding and properties of operations to add and subtract.** fluent, compose, decompose, place value, digit, ten more, ten less, one hundred more, one hundred less, add, subtract, sum, equal, addition, subtraction

9.1 Personal Financial Literacy, 9.2 Career Awareness, Exploration, and Preparation and Training, 9.4 Life Literacies and Key Skills

9.1.2.FP.2 Differentiate between financial wants and needs
9.1.2.PB.1 Determine various ways to save and places in the local community that help people save and accumulate money over time
9.1.2.PB.2 Explain why an individual would choose to save money

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/

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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:

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:

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English Language Learners	Modifications for Gifted Students
All WIDA Can Do Descriptors can be found at this link: https://wida.wisc.edu/teach/can-do/descriptors ☐ Grades 2-3 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	☐ CAFÉ
☐ Whole Group	☐ Centers
☐ Small Groups	☐ Intervention/Remediation
☐ Guided Practice	☐ Projects
☐ Independent Practice	☐Academic Games
☐ Daily 5	☐ Other Suggested Activities:

Interdisciplinary Connections

Go Math Big Idea Vocabulary Reader: Whales (Math, Reading, Writing, Science)
Go Math Big Idea Vocabulary Reader: All About Animals (Math, Reading, Writing, Science)
Go Math Real World Project: My Math Project Storybook "By the Sea" (Social Studies)
Go Math ThinkCentral STEM Activities (Science)
Go Math Cross-Curricular Science and Social Studies questions, experiments, and activities embedded throughout the chapter

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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.