Winslow Schools
Mathematics Curriculum - Grade 1
Unit 3

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice
Unit 3 **Place Value, Measurement & Shapes**	• 1.NBT.B.2c • 1.NBT.C.4* • 1.NBT.C.5 • 1.NBT.C.6 • 1.MD.A.1 • 1.MD.A.2 • 1.MD.B.3 • 1.OA.C.6*	• Understand place value • Use place value understanding and properties of operations to add and subtract • Measure lengths indirectly by iterating length units • Tell and write time • Add and subtract within 20	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 3: Suggested Open Educational Resources	1.NBT.C.4 Ford and Logan Add 45+36 1.NBT.C.5 Number Square 1.MD.A.2 Measure Me! 1.MD.A.2 Measuring Blocks 1.MD.A.2 Growing Bean Plants 1.MD.B Making a clock 1.OA.C.6 Making a ten		

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

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Curriculum Unit 3	Standards		Pacing	
			Days	Unit Days
Unit 3 **Place Value, Measurement & Shapes**	• 1.NBT.B.2c	Compose and decompose numbers to 90 into tens, identifying the value of the number in the tens and ones place.	4	45
	• 1.NBT.C.4*	Add a 2-digit and a 1-digit number using concrete models and drawings with a place value strategy or properties of operations; explain or show how the model relates to the strategy (sums within 100). Add a 2-digit number and a multiple of 10, using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).	11	
	• 1.NBT.C.5	Explain, given a two-digit number, how to find 10 more or ten less than the number without having to count.	3	
	• 1.NBT.C.6	Subtract a multiple of 10 from a multiple of 10 (both within the range 10-90) using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).	3	
	• 1.MD.A.1	Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil)	3	
	• 1.MD.A.2	Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil).	6	
	• 1.MD.B.3	Tell and write time to the half-hour using the term *o'clock* and using digital notation (include both analog and digital clocks).	4	
	• 1.OA.C.6*	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.	6	
	Assessment, Re-teach and Extension		5	

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Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
● 1.NBT.B.2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 1.NBT.B.2.c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). *(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): ● Two digits represent amounts of tens and ones. ● The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). Students are able to: ● compose tens to make numbers up to 90. ● decompose numbers up to 90, into tens. ● identify the value of the number in the tens or ones place. Learning Goal 1: Compose and decompose numbers to 90 into tens, identifying the value of the number in the tens and ones place.
● 1.NBT.C.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 (e.g. base ten blocks) 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. *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. 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): ● In adding two-digit numbers, add tens with tens and ones with ones. ● In adding two-digit numbers, sometimes it is necessary to compose a ten. Students are able to: ● use concrete models and drawings with a strategy based on place value to add a two-digit number and a one-digit number. ● use concrete models and drawings with properties of operations to add a two-digit number and a one-digit number. ● use concrete models and drawings with a strategy based on place value to add a two-digit number and a multiple of 10. ● use concrete models and drawings with properties of operations to add a two-digit number and a multiple of 10. ● explain or show how the model relates to the strategy. Learning Goal 2*:* Add a 2-digit and a 1-digit number using concrete models and drawings with a place value strategy or properties of operations*;* explain or show how the model relates to the strategy (sums within 100). Learning Goal 3: Add a 2-digit number and a multiple of 10, using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).

• 1.NBT.C.5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	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.	Concept(s): No new concept(s) introduced Students are able to: • given a two-digit number, find 10 more than the number without counting. • given a two-digit number, find 10 less than the number without counting. • explain, given a two-digit number, how to find 10 more or ten less than the number without counting. Learning Goal 4: Explain, given a two-digit number, how to find 10 more or ten less than the number without having to count.
• 1.NBT.C.6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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.	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.	Concept(s): No new concept(s) introduced Students are able to: • use concrete models and drawings with a strategy based on place value to subtract a multiple of 10 from a multiple of 10 (both within the range 10-90). • use concrete models and drawings with properties of operations to subtract a multiple of 10 from a multiple of 10 (both within the range 10-90). • explain or show how the model relates to the strategy. Learning Goal 5: Subtract a multiple of 10 from a multiple of 10 (both within the range 10-90) using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).

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● 1.MD.A.1. Order three objects by length; compare the lengths of two objects indirectly by using a third object	MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ● Objects can be compared and ordered based on length. Students will be able to: ● compare the length of two objects. ● compare the length of two objects by using a third object as a measuring tool. ● order three objects by length. Learning Goal 6: Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil).
● 1.MD.A.2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *it to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps*.	MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ● The length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Students will be able to: ● lay multiple copies of a shorter object (the length unit) end to end. ● use a shorter object to express the length of a longer object. Learning Goal 7: Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil).
● 1.MD.B.3. Tell and write time in hours and half-hours using analog and digital clocks	MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ● Time is represented on analog and on digital clocks. ● Analog clocks have *hands* that indicate the time in hours and minutes. Students are able to: ● tell and write time in hours using analog and digital clocks. ● tell and write time in half-hours using analog and digital clocks. ● use the term *o'clock* in reporting time to the hour. Learning Goal 8: Tell and write time to the half-hour using the term *o'clock* and using digital notation (include both analog and digital clocks).

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● 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.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 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; – relationship between addition and subtraction, and – creating equivalent but easier or known sums. ● fluently add or subtract whole numbers within 20. Learning Goal 9: 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

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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.NBT.B.2c: K.OA.4
1.NBT.C.4: K.NBT.1
1.NBT.C.5: K.CC.1, 1.OA.5
1.NBT.C.6: K.OA.3
1.MD.A.1: K.MD.1, K.MD.2
1.MD.A.2: K.MD.2
1.MD.B.3:
1.OA.C.6: K.OA.5

Common Misconceptions:

1.NBT.C.5: Students lack the concept that 10 in any position (place) makes one (group) and in the next position and vise-versa.

Example:

If students are asked to add a collection of 12 hundreds , 2 tens and 13 ones, students write 12213, possibly squeezing the 2 and the 13 together or separating the three numbers with some space.

1.MD.A.1: Some students may view the measurement process as a procedural counting task. They might count the markings on a ruler rather than the spaces between (the units of measure). Students need numerous experiences measuring lengths with student-made tapes or rulers with numbers in the center of the spaces.

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**

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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

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Vocabulary	
1.NBT.2 **Understand place value.** ones, tens, bundle, left-overs, singles, groups, compare, greater than, less than, equal to, ‹, ›, =	1.MD.1 & 2 **Measure lengths indirectly and by iterating length units.** compare, measure, order, length, height, more, less, longer than, shorter, than, first, second, third, gap, overlap, about, a little less than, a little more than 1.MD.3 **Tell and write time.** time, hour, half-hour, about, o'clock, past, analog clock, digital clock 1.OA.6 **Add and subtract within 20.** addition, putting together, adding to, counting on, making ten, subtraction, taking apart, taking from, equivalent, sum, unknown, equal, equation, counting all, counting on, counting back **Go Math Vocabulary** half hour, hour, hour hand, longest, minute, minute hand, shortest, bar graph, picture graph, tally chart, tally mark
1.NBT.4, 5, & 6 **Use place value understanding and properties of operations to add and subtract.** ones, tens, add, subtract, reason, more, less	

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9.1 Personal Financial Literacy, 9.2 Career Awareness, Exploration, And Preparation and Training, 9.4 Life Literacies and Key Skills
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.CR.2 List ways to give back, including making donations, volunteering and starting a business 9.2.2.CAP.1 Make a list of different types of jobs and describe the skills associated with each job 9.2.2.CAP.3 Define entrepreneurship and social entrepreneurship 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:

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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:

English Language Learners

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

Suggested Modifications for Gifted Students

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

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

Interdisciplinary Connections
Go Math Big Idea Vocabulary Reader: All Kinds of Weather (Math, Reading, Writing, Science)
Go Math Real World Project: Fun with Friends at School (Math and Social Studies)
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.