The Natrona County School District empowers every learner to grow, excel, and be successful contributors to the local and global community.

NATRONA COUNTY SCHOOLS

Math Curriculum

Grade 1

Including Grades K-5 Computer Science Final Curriculum Integration Opportunities

August 2022

Timeline of NCSD Math Curriculum Versions		
Date	**Version**	**Details**
May 2020	Draft for Grades K-12 Math Curriculum	2019-2020 School Year ● The Math Subject Area Committee wrote the draft curriculum. May 2020 ● The draft version was published and open for validation comments.
August 2021	Final for Grades K-12 Math Curriculum Draft for Grades K-5 Computer Science Curriculum Integration	2020-2021 School Year ● The Math Subject Area Committee validated the K-12 math draft curriculum. ● The Computer Science Subject Area Committee wrote the K-12 computer science draft curriculum. ○ Suggested Curriculum Integration was included in the K-5 math curriculum. August 2021 ● The NCSD Board of Education approved the K-12 math final curriculum. ● The Computer Science Draft Curriculum version was published and open for validation comments.
August 2022*	Final for Grades K-5 Computer Science Curriculum Additions	2021-2022 School Year ● The Computer Science Subject Area Committee validated the K-12 computer science draft curriculum (including suggested curriculum integration in the K-5 math curriculum). August 2022 ● The NCSD Board of Education approved the K-12 computer science final curriculum. ○ Suggested Curriculum Integration was included in the K-5 math curriculum.

* No changes were made to the math curriculum with this update.

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Christine Bartlett
Elizabeth Becher
Jennifer Bonnett
Timbree Brown
Kolleen Buckallew
Brystal Chaput
Seth Conine
Aubrey Corbett
Elizabeth Cornett
Diana Craig
Darcy Croell
Kerin Dillon
Elizabeth Fauber
Kristin Fauss
Tim Fauss
Johanna Findley
Kerri Flammang
Kelsey Fowler
Shawn Galles
Erendira Garcia
Matt Gardiner
Erin Gazda
Kendall Gilmore
Robert Gilmore
Jolyn Hallgren
Tanya Harris
Ashlie Howell
Carole Jackson
Erin Jackson-Ries
Jonna Johnson
Wendy Johnson
Christy Jourgensen
Jann Keller
Kim Kent
Kristin Landry
Bryce Leonhardt
Heather Malody
Anne Marken
Mike Mohr
Rachel Moturi
Jason O'Briant
Danna Parker
Carrie Patterson
Ann Perko
Megan Propp
Ryan Rivera
Karen Ryan
Melanie Shutts
Misti Simmons
Ashley Ujvary
Zach Vaporis
Deb White
Kayla Wilcox
Shanae Wilfong
Beth Williams
Rachel Winckler
Janie Woolson
David Wright
Kathy Zhao

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Introduction

NCSD#1 Math Mission Statement

Students completing the NCSD#1 Mathematics curriculum will be proficient problem solvers, critical thinkers, and decision makers in order to be productive citizens who contribute to their community.

Purpose

The purpose of this document is to communicate the guaranteed and viable curriculum for Math in Natrona County School District. This document has been aligned with the 2018 Wyoming Math Content and Performance Standards. However, our curriculum will continue to evolve as we work to ensure our students have the knowledge and skills they need to be successful in the 21st Century.

Rationale

Mathematics is the language that defines the blueprint of the universe. Mathematics is woven into all parts of our lives and is more than a list of skills to be mastered. The essence of mathematics is the ability to employ critical thinking and reasoning to solve problems. To be successful in mathematics, one must see mathematics as sensible, useful, and worthwhile. The 2018 Wyoming Mathematics Content and Performance Standards address two kinds of knowledge: mathematical content and mathematical practice.

Standards for Mathematical Practice

Procedural knowledge alone will not prepare our 21st Century students to be globally competitive. Mathematical thinkers also visualize problems and recognize that multiple strategies may lead to a single solution. They realize mathematics is applicable outside of the classroom and are confident in their ability to apply mathematical concepts to all aspects of life. The Standards for Mathematical Practice cultivate mathematically literate and informed citizens. Using mathematics as a means of synthesizing complex concepts and making informed decisions is paramount to college and career success. The Standards for Mathematical Practice develop skills that serve students beyond the math classroom.

Standards for Mathematical Practices

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.

Organization of Standards

Content Standards

Content standards define what students are expected to know and be able to do by the time they graduate. They do not dictate what methodology or instructional materials should be used, nor how the material is delivered.

Benchmarks

Benchmarks specify what students are expected to know and be able to do at the end of each of the grade levels. Benchmarks specify the skills and content students must master in order to demonstrate proficiency of the content standard by the time they graduate. In this standards document, you will find the benchmarks are broken out into individual grades for Kindergarten through 8th grade (K-8) and into Conceptual Categories at the high school grade levels (9-12).

Grades K-5 Summary of Grade-Level Purpose Statements

Grade Level	**A Purpose Statement describes the focus of the subject at this grade level. A Purpose Statement points out what is new or different at this level that the student will accomplish.**
Kindergarten	In Kindergarten, instructional time should focus on two critical areas: (1) representing, relating, and operating on whole numbers, initially with sets of objects; and (2) describing shapes and space. More learning time in Kindergarten should be devoted to numbers than to other topics. *Note: Many kindergarten benchmarks that are ongoing throughout the year can be taught and assessed in smaller segments.*
Grade 1	In Grade 1, instructional time should focus on the following critical areas: Students will extend their number sequence to 120. Students will add and subtract whole numbers while solving problems within 20. Based on their prior work with small numbers, students will understand connections between addition and subtraction. Students will begin to think of whole numbers between 10 and 100 in terms of tens and ones. Students use this number sense to compare, add and subtract whole numbers to 100. Students will build understanding of part-whole relationships by partitioning shapes into equal shares. Students will be able to tell time to the half hour. Students will be able to identify the value of all standard U.S. coins.
Grade 2	In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation, (2) building fluency with addition and subtraction, (3) using standard units of measure, and (4) describing and analyzing shapes.
Grade 3	Students will (1) use fluent addition and subtraction strategies within 1,000, (2) develop fluent multiplication and division strategies within 100, (3) work with unit fractions with a numerator of 1, (4) develop a strong understanding of rectangular arrays and area/perimeter, (5) describe and analyze two-dimensional shapes, (6) use standard units of measure (time, data, mass, and volume), and (7) draw and interpret scaled picture and bar graphs. *Note: Many third grade benchmarks that are ongoing throughout the year can be taught and assessed in smaller segments.*
Grade 4	In Grade 4, student learning is focused on three critical areas: (1) develop understanding and fluency using strategies based on place value with multi-digit multiplication, and developing understanding of dividing using strategies based on place value, to find quotients involving multi-digit dividends; (2) develop understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understand that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.
Grade 5	In Grade 5, instructional time should focus on the following four critical areas: (1) develop understanding and fluency of operations with multi-digit whole numbers and decimals to hundredths; (2) develop fluency with adding, subtracting, multiplying, and dividing fractions; (3) extend division to 2-digit divisors; and (4) develop an understanding of volume. Outcomes 2, 4, and 5 are arranged by operations. This is to see the operational relationships between whole numbers, decimals, and fractions (for example, multiplying whole numbers and multiplying decimals are similar procedures). This is also to increase students' exposure within all related skills.

Grades K-5 District Priorities

The purpose for including priority standards (or benchmarks in the case of the WY Math Content and Performance Standards) in the NCSD Math curriculum is to identify benchmarks for course or grade level teams to build common assessments and analyze student results to ensure proficiency by the end of each grade level or course. The identified benchmarks were chosen by the Math Subject Area Committee using the REAL (Readiness, Endurance, Assessed, Leveraged) Criteria and feedback submitted by teachers and teacher teams across NCSD. Identifying NCSD priority benchmarks should not deter grade levels or courses at NCSD schools from identifying additional priorities. Schools have the option of adding priority benchmarks at the building level as they see fit.

Grades K-2	Counting and Cardinality	Operations and Algebraic Thinking	Number and Operations in Base Ten	Number and Operations Fractions	Measurement and Data	Geometry
Kindergarten	K.CC.A.1.A K.CC.A.3 K.CC.B.4.A K.CC.B.4.C K.CC.C.6	K.OA.D.2	K.NBT.E.1.A K.NBT.E.1.B			K.G.I.4
Grade 1		1.OA.A.1 1.OA.C.6	1.NBT.E.1.A 1.NBT.E.1.B 1.NBT.E.1.C 1.NBT.E.1.D 1.NBT.F.2.A 1.NBT.F.2.B 1.NBT.F.2.C 1.NBT.G.4.B 1.NBT.G.4.C		1.MD.J.4	1.G.K.3.A 1.G.K.3.B 1.G.K.3.C
Grade 2		2.OA.A.1 2.OA.B.2 2.OA.C.4	2.NBT.D.1.C 2.NBT.E.7.A		2.MD.H.7 2.MD.I.10.A-B	2.G.J.3.A-C

Grades 3-5	Counting and Cardinality	Operations and Algebraic Thinking	Number and Operations in Base Ten	Number and Operations Fractions	Measurement and Data	Geometry
Grade 3		3.OA.A.1 3.OA.A.3 3.OA.C.7 3.OA.D.8.A		3.NF.F.2.A 3.NF.F.3.A 3.NF.F.3.B 3.NF.F.3.C 3.NF.F.3.D	3.MD.H.3 3.MD.I.7.A 3.MD.I.7.B 3.MD.I.7.C 3.MD.J.8	3.G.K.1
Grade 4		4.OA.A.3.A	4.NBT.E.5.C 4.NBT.E.6	4.NF.F.1 4.NF.F.2.C 4.NF.G.3.B 4.NF.G.3.D 4.NF.G.4.C 4.NF.H.5	4.MD.I.3	4.G.L.2
Grade 5		5.OA.A.2	5.NBT.C.1 5.NBT.D.5 5.NBT.D.7	5.NF.E.2 5.NF.F.6 5.NF.F.7.C	5.MD.I.5.B	5.G.J.2

How to Read the NCSD Math Curriculum

Grades K-5

The **Purpose Statement** describes the focus of the subject at this grade level or in this course. It points out what is new or different at this level that the student will accomplish.

Kindergarten Purpose Statement
In Kindergarten, instructional time should focus on two critical areas: (1) representing, relating, and operating on whole numbers, initially with sets of objects; and (2) describing shapes and space. More learning time in Kindergarten should be devoted to numbers than to other topics. *Note: Many kindergarten benchmarks that are ongoing throughout the year can be taught and assessed in smaller segments.*

The **Outcome Description** is aligned to the Standards and Performance Expectations (Benchmarks). Outcomes are the expected result of student learning for a grade level or course.

Kindergarten: Outcome 1

Students use numbers, including written numerals, to represent quantities, such as counting objects in a set; counting out a given number of objects. Students choose, combine, and apply effective strategies for answering quantitative questions, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards in this outcome:

- K.CC.A Know number names and the count sequence.
- K.CC.B Count to tell the number of objects.

The **Content and Performance Standards** addressed in the outcome are listed.

District Priority Benchmarks in this outcome:

- K.CC.A.1.A
- K.CC.A.3
- K.CC.B.4.A
- K.CC.B.4.C

The **District Priority Benchmarks** addressed in the outcome are listed.

The **Benchmarks (Components)** are word-for-word Benchmarks from the WY State Standards. These are the specific concepts or skills necessary for students to know and do in order to meet an outcome. The Benchmarks (Components) are listed in a suggested order to be taught in each outcome.

Benchmark Code	Benchmarks (Components) for Outcome 2 continued	Math Practice Standards
K.G.H.2	Correctly name shapes regardless of their orientations or overall size. *Note:* • *In Outcome 2 the focus is on 2D shapes.* • *In Outcome 3 the focus is on 3D shapes.* *Note:* • *Kindergarten two-dimensional geometry standards only require: squares, circles, triangles, rectangles, and hexagons.*	MP.6
K.G.I.4 **Priority** **Priority Connection**	Analyze and compare two- and three-dimensional shapes, using informal language to describe their similarities, differences, and attributes. *Example:* Show the student a rectangle and triangle and ask them to name at least one way that they are the same and one way that they are different. Write down the student's response. *Note:* • *In Outcome 2 the focus is on 2D shapes.* • *In Outcome 3 the focus is on 3D shapes.* *Apply learning target(s) from Outcome 1:* • Count objects using one-to-one correspondence. (K.CC.B.4.A) Learning Targets: • Analyze and compare 2D shapes by describing similarities of attributes. (DOK 3 Strategic Thinking) • Analyze and compare 2D shapes by describing differences of attributes. (DOK 3 Strategic Thinking) Vocabulary: • compare, same and different, similarities, differences, two-dimensional, 2D shape, corners, sides, vertices, attributes (formal vocabulary not assessed).	MP.2 MP.6 MP.8

The **Math Practice Standard(s)** for each benchmark are listed.

District **Priority** Benchmarks are noted under the benchmark code.

Examples and/or **Notes** are included to help clarify, as needed.

Priority Connection signifies that a previous Learning Target from another Outcome applies to the benchmark.

Every District **Priority** Benchmark has Learning Targets included. They are found in an orange shaded row. Vocabulary might be included as well.

Grade 1 Sequence of Benchmarks by Outcome

Grade 1 WY Content and Performance Standards	Outcome						
Operations and Algebraic Thinking	1	2	3	4	5	6	7
1.OA.A Represent and solve problems involving addition and subtraction.			1.OA.A.1* 1.OA.A.2				
1.OA.B Understand and apply properties of operations and the relationship between addition and subtraction.		1.OA.B.3 1.OA.B.4					
1.OA.C Add and subtract within 20.		1.OA.C.5 1.OA.C.6*					
1.OA.D Work with addition and subtraction equations.		1.OA.D.7 1.OA.D.8					
Number and Operations in Base Ten	1	2	3	4	5	6	7
1.NBT.E Extend the counting sequence.	1.NBT.E.1.A* 1.NBT.E.1.B* 1.NBT.E.1.C* 1.NBT.E.1.D*						
1.NBT.F Understand place value.				1.NBT.F.2.A* 1.NBT.F.2.B* 1.NBT.F.2.C* 1.NBT.F.3			
1.NBT.G Use place value understanding and properties of operations to add and subtract.					1.NBT.G.4.A 1.NBT.G.4.B* 1.NBT.G.4.C* 1.NBT.G.4.D 1.NBT.G.5 1.NBT.G.6		

* District Priority Benchmark.

Grade 1 Sequence of Benchmarks by Outcome Continued

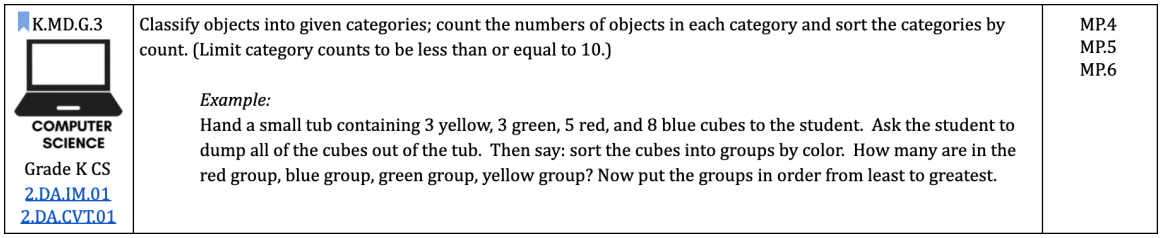
Grade 1 WY Content and Performance Standards	Outcome						
Measurement and Data	1	2	3	4	5	6	7
1.MD.H Measure lengths indirectly and by iterating length units.							1.MD.H.1 1.MD.H.2
1.MD.I Work with time and money.							1.MD.I.3.A 1.MD.I.3.B
1.MD.J Represent and interpret data.			1.MD.J.4*				
Geometry	1	2	3	4	5	6	7
1.G.K Reason with shapes and their attributes.						1.G.K.1 1.G.K.2 1.G.K.3.A* 1.G.K.3.B* 1.G.K.3.C*	

* District Priority Benchmarks.

Computer Science Integration Opportunities for Grades K-5

The Computer Science Final Curriculum includes suggested curriculum integration opportunities in the K-5 math curriculum. Specific computer science components can be taught in conjunction with specific math benchmarks/components. These integration opportunities within the NCSD Math Curriculum are noted with a computer science symbol. There is also a link to the computer science component that is connected to the opportunity. The image below shows how this integration opportunity will look in the math curriculum.

Example:



Draft Computer Science Integration Suggestions with the Math Curriculum K-5							
Grade	Math Outcome	Math Component	Computer Science Benchmark	Grade	Math Outcome	Math Component	Computer Science Benchmark
K	Outcome 1	K.MD.G.3	2.DA.CVT.01	3	Outcome 3	3.MD.H.3	5.DA.CVT.01
			2.DA.IM.01				5.DA.IM.01
1	Outcome 3	1.MD.J.4	2.DA.CVT.01		Outcome 6	3.OA.D.8.A	5.AP.A.01
			2.DA.IM.01	4	Outcome 3	4.OA.A.3.A	5.AP.M.01
			2.AP.V.01		Outcome 7	4.MD.I.2	5.DA.CVT.01
2	Outcome 3	2.NBT.E.7.A	2.AP.PD.02	5	Outcome 2	5.MD.G.1	5.AP.M.01
		2.NBT.E.7.B	2.AP.PD.02		Outcome 7	5.G.J.1.B	5.DA.CVT.01
		2.NBT.E.7.C	2.AP.PD.02	The Computer Science Final Curriculum was approved in 2022. • Suggested computer science integration opportunities were included in the K-5 math curriculum. • No changes were made to the actual math curriculum.			
		2.NBT.E.9	2.AP.PD.02				
	Outcome 7	2.MD.I.10.A-B	2.DA.IM.01				

Grade 1 Purpose Statement
In Grade 1, instructional time should focus on the following critical areas: Students will extend their number sequence to 120. Students will add and subtract whole numbers while solving problems within 20. Based on their prior work with small numbers, students will understand connections between addition and subtraction. Students will begin to think of whole numbers between 10 and 100 in terms of tens and ones. Students use this number sense to compare, add, and subtract whole numbers to 100. Students will build understanding of part-whole relationships by partitioning shapes into equal shares. Students will be able to tell time to the half hour. Students will be able to identify the value of all standard U.S. coins.

1 1 Number Sequence

First Grade: Outcome 1

Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; counting from a given number forward and backward. This will later support student understanding of the connections between counting and addition and subtraction.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards in this outcome:

- 1.NBT.E Extend the counting sequence

District Priority Benchmarks in this outcome:

- 1.NBT.E.1.A
- 1.NBT.E.1.B
- 1.NBT.E.1.C
- 1.NBT.E.1.D

Benchmark Code	Benchmarks (Components) for Outcome 1	Math Practice Standards
1.NBT.E.1.A **Priority**	Extend the number sequences to 120. In this range: A. Count forward and backward, starting at any number less than 120. *Examples:* "Start counting forward from (choose a number), and I will tell you when to stop." Be sure your students can cross the decades. "Start counting backward from (choose a number), and I will tell you when to stop." Be sure your students can cross the decades. *Note:* ● *This benchmark is ongoing all year long. It can be taught and assessed in smaller segments.*	MP.7 MP.8
	Learning Targets: ● Count a number sequence forward within 120, starting from any number. (DOK 1 Recall) ● Count a number sequence backward within 120, starting from any number. (DOK 1 Recall)	
1.NBT.E.1.B **Priority**	Extend the number sequences to 120. In this range: B. Read numerals. *Example:* "Read this number." Show the student a number between 1 and 120. (Pick any number.) *Note:* ● *This benchmark is ongoing all year long. It can be taught and assessed in smaller segments.*	MP.7 MP.8
	Learning Targets: ● Identify written numerals to 120. (DOK 1 Recall)	

Benchmark Code	Benchmarks (Components) for Outcome 1 continued	Math Practice Standards
1.NBT.E.1.C **Priority**	Extend the number sequences to 120. In this range: C. Write numerals. *Example:* "Write the number 51." (Pick any number.) *Note:* ● *This benchmark is ongoing all year long. It can be taught and assessed in smaller segments.*	MP.7 MP.8
	Learning Targets: ● Write numbers to 120. (DOK 1 Recall)	
1.NBT.E.1.D **Priority**	Extend the number sequences to 120. In this range: D. Represent a number of objects with a written numeral. *Example:* ● "Count the number of objects in the picture, then write the number." Some representations might be a picture of a large number of objects, bundles of tens and ones, base ten blocks (once this has been taught), objects on ten frames, a pile of manipulatives, and subitizing cards. Other representations are acceptable. *Note:* ● *This benchmark is ongoing all year long. It can be taught and assessed in smaller segments.*	MP.7 MP.8
	Learning Targets: ● Represent the number of objects with the appropriate written numeral. (DOK 1 Recall)	

1 2 Conceptual and Procedural Addition and Subtraction

First Grade: Outcome 2

Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards in this outcome:

- 1.OA.B Understand and apply properties of operations and the relationship between addition and subtraction
- 1.OA.C Add and subtract within 20
- 1.OA.D Work with addition and subtraction equations

District Priority Benchmarks in this outcome:

- 1.OA.C.6

Benchmark Code	Benchmarks (Components) for Outcome 2	Math Practice Standards
1.OA.C.5	Relate counting to addition and subtraction using strategies, such as, by counting on and back. *Example:* Counting on two in order to add two.	MP.2 MP.4 MP.7 MP.8

Benchmark Code	Benchmarks (Components) for Outcome 2 continued	Math Practice Standards
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? a. 6 = 6 b. 7 = 8 – 1 c. 5 + 2 = 2 + 5 d. 4 + 1 = 5 + 2	MP.7 MP.8
1.OA.C.6 **Priority** **Priority Connection**	Add and subtract within 20, demonstrating fluency in addition and subtraction within 10. Use strategies such as counting on; making ten using the relationship between addition and subtraction. *Note:* ● *Students do not need to know addition and subtraction facts from memory at this point.* ● *Fluency does not equal a timed assessment. Students should demonstrate fluency by using efficient, accurate, and appropriate strategies for addition and subtraction, working toward automaticity by the end of grade 2.* *Apply learning target(s) from Outcome 1:* ● Count a number sequence forward within 120, starting from any number. (1.NBT.E.1) ● Count a number sequence backward within 120, starting from any number. (1.NBT.E.1)	MP.6 MP.7
	Learning Targets: ● Add within 20 using strategies. (DOK 2 Skill/Concept) ● Add within 10 demonstrating fluency. (DOK 2 Skill/Concept) ● Subtract within 20 using strategies. (DOK 2 Skill/Concept) ● Subtract within 10 demonstrating fluency. (DOK 2 Skill/Concept) Vocabulary: ● addition, difference, related facts, subtraction, sum	

Benchmark Code	Benchmarks (Components) for Outcome 2 continued	Math Practice Standards
1.OA.B.3	Apply commutative and associative properties of addition as strategies to add and subtract. *Example:* 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.) *Note: These are fact families and number bonds. (Students need not to use formal terms for these properties.)*	MP.7 MP.8
1.OA.B.4	Understand subtraction as an unknown-addend problem. *Example:* If you know that 3 + 4 = 7 then you know that (7 - 3 = __) or (7 - 4 = __) or (7 - __ = 3) or (7 - __ = 4).	MP.1 MP.7 MP.8
1.OA.D.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *Example:* Determine the unknown that makes the equation true in each of the equations: a. 8 + __ = 11 b. 5 = __ - 3 c. 6 + 6 = __	MP.1 MP.4 MP.7 MP.8

1 3 Application of Addition and Subtraction

First Grade: Outcome 3

Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards in this outcome:

- 1.OA.A Represent and solve problems involving addition and subtraction
- 1.MD.J Represent and interpret data

District Priority Benchmarks in this outcome:

- 1.OA.A.1
- 1.MD.J.4

Benchmark Code	Benchmarks (Components) for Outcome 3	Math Practice Standards
1.OA.A.1 **Priority** **Priority Connection**	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, by using objects, drawings, or equations with a symbol for the unknown number to represent the problem. *Apply learning target(s) from Outcome 2:* ● Add within 20 using strategies. (1.OA.C.6) ● Add within 10 demonstrating fluency. (1.OA.C.6) ● Subtract within 20 using strategies. (1.OA.C.6) ● Subtract within 10 demonstrating fluency. (1.OA.C.6)	MP.1 MP.2
	Learning Targets: ● Solve addition word problems within 20 using objects, drawings, or equations to represent a problem that involves adding and putting together with a symbol for the unknowns in all positions. (DOK 3 Strategic Thinking) ● Solve subtraction word problems within 20 using objects, drawings, or equations to represent a problem that involves taking from, taking apart, and comparing with a symbol for the unknowns in all positions. (DOK 3 Strategic Thinking) Vocabulary: ● equation, equal to, difference, less than, more than, sum, symbols, total, unknown	

Benchmark Code	Benchmarks (Components) for Outcome 3 continued	Math Practice Standards
1.MD.J.4 **Priority** **Priority Connection**  **COMPUTER SCIENCE** Grade 1 CS 2.DA.CVT.01 2.DA.IM.01 2.AP.V.01	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. *Note: All other Measurement and Data benchmarks are addressed in Outcome 7.* *Apply learning target(s) from Outcome 2:* • Add within 20 using strategies. (1.OA.C.6) • Add within 10 demonstrating fluency. (1.OA.C.6) • Subtract within 20 using strategies. (1.OA.C.6) • Subtract within 10 demonstrating fluency. (1.OA.C.6) Learning Targets: • Represent data with up to three categories into tally charts, tables, picture graphs, etc. (DOK 2 Skill/Concept) • Ask questions about data, such as the total number of data points, how many in each category, and how many more or less are in one category than in another. (DOK 3 Strategic Thinking) • Answer questions about data, such as the total number of data points, how many in each category, and how many more or less are in one category than in another. (DOK 3 Strategic Thinking) Vocabulary: • categories, data, how many more, how many less, picture graph, table, tally chart	MP.2 MP.3 MP.4
1.OA.A.2	Solve word problems that call for the addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, or equations. *Example:* You have a bag of toys. In the bag there are 5 trucks, 6 cars, and 2 motorcycles. How many toys are in the bag? Students can use objects, drawings, or equations to solve.	MP.1 MP.2 MP.4

1 4 Place Value

First Grade: Outcome 4

Students think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, students understand the order of the counting numbers and their relative magnitudes.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards in this outcome:

- 1.NBT.F Understand place value

District Priority Benchmarks in this outcome:

- 1.NBT.F.2.A
- 1.NBT.F.2.B
- 1.NBT.F.2.C

Benchmark Code	Benchmarks (Components) for Outcome 4	Math Practice Standards
1.NBT.F.2.A **Priority**	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: A. 10 can be thought of as a bundle of ten ones — called a "ten".	MP.4 MP.5 MP.7
	Learning Targets: ● Compose ones into a group of ten. (DOK 1 Recall) Vocabulary: ● digit, ones, ten	

Benchmark Code	Benchmarks (Components) for Outcome 4 continued	Math Practice Standards
1.NBT.F.2.B **Priority**	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: B. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	MP.4 MP.5 MP.7
	Learning Targets: ● Represent a teen number with a group of ten and some ones. (DOK 1 Recall) Vocabulary: ● base ten drawing, compose, digit, ones, ten	
1.NBT.F.2.C **Priority**	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 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).	MP.4 MP.5 MP.7
	Learning Targets: ● Represent a two-digit number with groups of tens and zero ones using manipulatives, drawings, etc. (DOK 1 Recall) Vocabulary: ● base ten drawing, digit, ones, ten	
1.NBT.F.3	Compare pairs of two-digit numbers based on the values of the tens digit and the ones digits, recording the results of comparisons with the words "is greater than," "is equal to," "is less than," and with the symbols >, =, and <. *Example:* Use the symbols < , >, = to make the statement true. 34 ___ 45 65___65 21___78	MP.1 MP.6 MP.7

1 5 Apply Place Value

First Grade: Outcome 5

Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

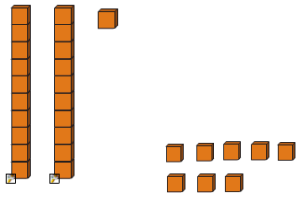
Standards are broken down by benchmarks and are listed in the component column of the document.

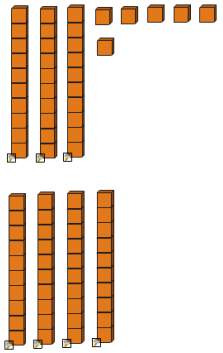
WY Content and Performance Standards addressed in this outcome:

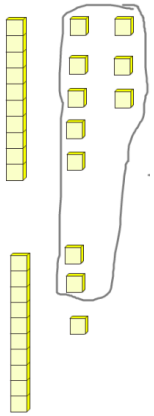
- 1.NBT.G Use place value understanding and properties of operations to add and subtract

District Priority Benchmarks in this outcome:

- 1.NBT.G.4.B
- 1.NBT.G.4.C

Benchmark Code	Benchmarks (Components) for Outcome 5	Math Practice Standards
1.NBT.G.4.A	Add within 100, using concrete models or drawings and strategies based on place value: A. Including adding a two-digit number and a one-digit number. *Example:* 21 + 8 = 29 	MP.2 MP.4 MP.7 MP.8

Benchmark Code	Benchmarks (Components) for Outcome 5 continued	Math Practice Standards
1.NBT.G.4.B **Priority**	Add within 100, using concrete models or drawings and strategies based on place value: B. Adding a two-digit number and a multiple of 10. *Example:* 36 = 40 = 76  *Apply learning target(s) from Outcome 4:* ● Represent a teen number with a group of ten and some ones. (1.NBT.F.2.B) ● Represent a two digit number with groups of tens and zero ones using manipulatives, drawings, etc. (1.NBT.F.2.C)	MP.2 MP.4 MP.7 MP.8
Priority Connection	Learning Targets: ● Add a multiple of 10 to a two digit number within 100 using drawings or models based on place value. (DOK 2 Skill/Concept) Vocabulary: ● base ten drawing, ones, ten	

Benchmark Code	Benchmarks (Components) for Outcome 5 continued	Math Practice Standards
1.NBT.G.4.C **Priority**	Add within 100, using concrete models or drawings and strategies based on place value: C. Understand that in adding two-digit numbers, adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. *Example:* 18 +13 = 31 	MP.2 MP.4 MP.7 MP.8
Priority Connection	*Apply learning target(s) from Outcome 4:* ● Compose ones into a group of ten. (1.NBT.F.2.A) ● Represent a teen number with a group of ten and some ones. (1.NBT.F.2.B) ● Represent a two digit number with groups of tens and zero ones using manipulatives, drawings, etc. (1.NBT.F.2.C)	
	Learning Targets: ● Add two digit numbers within 100 by adding tens to tens, and ones to ones using models, drawings, or place value strategies. (DOK 1 Recall) ● Compose a ten when necessary by circling or grouping ten ones. (DOK 2 Skill/Concept) Vocabulary: ● base ten drawing, compose, grouping, ones, ten	

Benchmark Code	Benchmarks (Components) for Outcome 5 continued	Math Practice Standards
1.NBT.G.4.D	Add within 100, using concrete models or drawings and strategies based on place value: D. Relate the strategy to a written method and explain the reasoning used.	MP.2 MP.4 MP.7 MP.8
1.NBT.G.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.6 MP.7 MP.8
1.NBT.G.6	Subtract multiples of 10 from an equal or larger multiple of 10 both in the range 10-90, using concrete models, drawings, and strategies based on place value.	MP.6 MP.7 MP.8

1 6 Geometry

First Grade: Outcome 6

Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, determine how they are alike and different, and develop the background for measurement and initial understandings of properties such as congruence and symmetry.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards addressed in this outcome:

- 1.G.K Reason with shapes and their attributes

District Priority Benchmarks in this outcome:

- 1.G.K.3.A
- 1.G.K.3.B
- 1.G.K.3.C

Benchmark Code	Benchmarks (Components) for Outcome 6	Math Practice Standards
1.G.K.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); for a wide variety of shapes; build and draw shapes to possess defining attributes.	MP.3 MP.6

Benchmark Code	Benchmarks (Components) for Outcome 6 continued	Math Practice Standards
1.G.K.3.A **Priority**	Partition circles and rectangles into two and four equal shares and: A. Describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and a quarter of.	MP.4 MP.6 MP.7
	Learning Targets: ● Partition a circle into two equal shares/parts. (DOK 1 Recall) ● Partition a rectangle into two equal shares/parts. (DOK 1 Recall) ● Partition a circle into four equal shares/parts. (DOK 1 Recall) ● Partition a rectangle into four equal shares/parts. (DOK 1 Recall) ● Describe the shares/parts using halves, fourths, and quarters, using the phrases half of, fourth of, and quarter of. (DOK 1 Recall) Vocabulary: ● partition, equal shares/parts, halves, fourths, quarters, half of, fourth of, quarter of	
1.G.K.3.B **Priority**	Partition circles and rectangles into two and four equal shares and: B. Describe the whole as two of, or four of the shares.	MP.4 MP.6 MP.7
	Learning Targets: ● Describe the whole as two of, or four of the shares/parts. (DOK 1 Recall) Vocabulary: ● shares/parts, whole	
1.G.K.3.C **Priority**	Partition circles and rectangles into two and four equal shares and: C. Recognize that decomposing into more equal shares creates smaller shares.	MP.4 MP.6 MP.7
	Learning Targets: ● Demonstrate and explain that decomposing into more equal shares creates smaller shares. (DOK 2 Skill/Concept) Vocabulary: ● decompose, equal, shares/parts	

Benchmark Code	Benchmarks (Components) for Outcome 6 continued	Math Practice Standards
1.G.K.2	Use two-dimensional shapes (rectangles, squares, trapezoids, rhombuses, and triangles) or three-dimensional shapes (cubes, rectangular prisms, cones, and cylinders) to create a composite figure, and create new figures from the composite figure.	MP.4 MP.8

1 7 Measurement

First Grade: Outcome 7

Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement. For example, if object A is heavier than object B, and object B is heavier than object C, then object A is heavier than object C through indirect measurement. Students engage in activities that lay the foundation to tell time to the hour and half hour and to identify and differentiate the value of standard US coins.

Standards are broken down by benchmarks and are listed in the component column of the document.

WY Content and Performance Standards addressed in this outcome:

- 1.MD.H Measure lengths indirectly and by iterating length units
- 1.MD.I Work with time and money

District Priority Benchmarks in this outcome:

- None

Benchmark Code	Benchmarks (Components) for Outcome 7	Math Practice Standards
1.MD.H.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object. *Example:* Students make play-doh worms and are given linking cubes. Each student compares his or her worm to the linking cubes. Then students make statements such as, "My worm is longer than the cubes. Your worm is shorter than the cubes."	MP.5 MP.6

Benchmark Code	Benchmarks (Components) for Outcome 7 continued	Math Practice Standards
1.MD.H.2	Use nonstandard units to show the length of an object as the number of same size units of length with no gaps or overlaps. *Example:* Use but not limited to cubes, counting bears, links, etc. that are the same size (teacher discretion). Have students use connecting blocks or some other nonstandard unit to measure three pencils and then put them in order from shortest to longest. For example, students may use buttons to measure the pencils and determine that a pencil is 6 buttons long.	MP.5 MP.6
1.MD.I.3.A	A. Tell and write time in hours and half-hours using analog and digital clocks. *Example:* Teacher displays an analog or digital clock and asks, "What time does the clock show?"	MP.4 MP.5 MP.6
1.MD.I.3.B	B. Identify U.S. coins by value (pennies, nickels, dimes, quarters). *Example:* Teacher shows the students a coin and asks, "What is the value of this coin?"	MP.4 MP.5 MP.6

NATRONA COUNTY SCHOOLS

Long-Range Plan

Reviewed & Revised Annually

Subjects	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
ELA	C	VC	A/R	VA		*C/VC	*VC			C	VC	A/R	VA		
Health	C	VC	A/R	VA					C	VC	A/R	VA			
PE		C	VC	A/R	VA				C	VC	A/R	VA			
Social Studies		C	VC	**VC	A/R	VA	VA	***C/VC				C	VC	A/R	VA
FPA		C	VC	A/R	VA				C	VC	A/R	VA			
Foreign Language			C	VC	A/R	VA	VA			C	VC	A/R	VA		
CVE			C	VC	A/R	VA	VA					C	VC	A/R	VA
Science				C	VC	A/R	VA						C	VC	A/R
Math	*VC, VA*	*A*	*VA*			C	VC	A/R	VA						C
Computer Science							C	VC	A/R	VA					
Math Extended Standards				C/A	VA			C/A	VA				C/A	VA	
ELA Extended Standards					C/A			VA						C/A	VA
Science Extended Standards							C/A	VA							C/A

Key

C	Development of Draft Curriculum	VC	Implementation and Validation of Draft Curriculum	A/R	Development of Assessments / Resource Selection	*VA*	Implementation and Validation of Assessments

Reviewed and revised annually
Date(s): Developed 12.1.15, Updated 3.31.16, Updated 5.4.17, Updated 2.14.18, Updated 2.1.19, Updated 7.16.19, Updated 1.9.20, Updated 5.12.20, Updated 10.22.20, Updated 5.13.21, Updated 1.5.22

*realignment of ELA curriculum grades 3-5
**addition of Native American Education for K-12
***realignment of SS curriculum grades 8-10