
BIG HOLLOW SCHOOL DISTRICT



MATHEMATICS CURRICULUM MAP

GRADE 1

2024-2025

Understanding Mathematical Concepts

Illustrative Mathematics is a problem-based core curriculum designed to support a balanced instructional approach to understanding mathematical concepts, building procedural fluency, and engaging in problem solving tasks. With this approach students are the facilitators of their learning and engage with math by doing, exploring complex problems that are age appropriate to solve in real world contexts, and construct arguments using precise mathematical language. Teachers shift their instructional practices and facilitate student learning by developing math communities that leverage high impact strategies and routines to guide learners to understand and make connections between concepts and procedures.

All students will:

- Develop mathematical reasoning and problem-solving abilities
- Deepen conceptual understanding, number sense, and numeracy
- Engage in peer conversations and math talks
- Use precise mathematical language when speaking, writing, or engaging in math tasks
- Use multiple strategies and representations to explain mathematical concepts
- Learn to work collaboratively with peers
- Relate math to real world situations

[Standards for Mathematical Practice](#)

Grade level Mathematical Practices Posters

The Standards for Mathematical Practice describe the skills that mathematics educators should seek to develop in their students. The descriptions of the mathematical practices in this document provide examples of how student performance will change and grow as they engage with and master new and more advanced mathematical ideas across the grade levels.

MP.1 Make sense of problems and persevere in solving them.

In first grade, students realize that doing mathematics involves solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Younger students may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, “Does this make sense?” They are willing to try other approaches.

MP.2 Reason abstractly and quantitatively.

Younger students recognize that a number represents a specific quantity. They connect the quantity to written symbols. Quantitative reasoning entails creating a representation of a problem while attending to the meanings of the quantities. In first grade students make sense of quantities and relationships while solving tasks. They represent situations by decontextualizing tasks into numbers and symbols. For example, “There are 60 children on the playground and some children line up. If there are 20 children still playing, how many children are lined up?” Students translate the situation into the equation: $60 - 20 =$ and then solve the task. Students also contextualize situations during the problem-solving process. For example, students refer to the context of the task to determine they need to subtract 20 from 60 because the total number of children on the playground is the total number less the 20 that are still playing. Students might also reason about ways to partition two-dimensional geometric figures into halves and fourths.

MP.3 Construct viable arguments and critique the reasoning of others.

First graders construct arguments using concrete referents, such as objects, pictures, drawings, and actions. They also practice their mathematical communication skills as they participate in mathematical discussions involving questions like “How did you get that?”, “Explain your thinking.”, and “Why is that true?” They not only explain their own thinking, but listen to others’ explanations. They decide if the explanations make sense and ask questions. For example, “There are 15 books on the shelf. If you take some books off the shelf and there are now 7 left, how many books did you take off the shelf?” Students might use a variety of strategies to solve the task and then share and discuss their problem-solving strategies with their classmates.

MP.4 Model with mathematics.

In early grades, students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart or list, creating equations, etc. Students need opportunities to connect the different representations and explain the connections. They should be able to use all of these representations as needed. First grade students model real-life mathematical situations with a number sentence or an equation and check to make sure equations accurately match the problem context. Students use concrete models and pictorial representations while solving tasks and also write an equation to model problem situations. For example, to solve the problem, “There are 11 bananas on the counter. If you eat 4 bananas, how many are left?” students could write the equation $11 - 4 = 7$. Students also create a story context for an equation such as $13 - 7 = 6$.

MP.5 Use appropriate tools strategically.

In first grade, students begin to consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, first graders decide it might be best to use colored chips to model an addition problem. In first grade students use tools such as counters, place value (base ten) blocks, hundreds number boards, number lines, concrete geometric shapes (e.g., pattern blocks, 3-dimensional solids), and virtual representations to support conceptual understanding and mathematical thinking. Students

determine which tools are the most appropriate to use. For example, when solving $12 + 8 =$, students explain why place value blocks are more appropriate than counters.

MP.6 Attend to precision.

As young children begin to develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and when they explain their own reasoning. In grade one, students use precise communication, calculation, and measurement skills. Students are able to describe their solutions strategies to mathematical tasks using grade-level appropriate vocabulary, precise explanations, and mathematical reasoning. When students measure objects iteratively (repetitively), they check to make sure there are no gaps or overlaps. Students regularly check their work to ensure the accuracy and reasonableness of solutions.

MP.7 Look for and make use of structure.

First graders begin to discern a pattern or structure. For instance, if students recognize $12 + 3 = 15$, then they also know $3 + 12 = 15$. (Commutative property of addition.) To add $4 + 6 + 4$, the first two numbers can be added to make a ten, so $4 + 6 + 4 = 10 + 4 = 14$. While solving addition problems, students begin to recognize the commutative property, for example $7 + 4 = 11$, and $4 + 7 = 11$. While decomposing two-digit numbers, students realize that any two-digit number can be broken up into tens and ones, e.g. $35 = 30 + 5$, $76 = 70 + 6$. Grade one students make use of structure when they work with subtraction as a missing addend problem, such as $13 - 7 =$ can be written as $7 + = 13$ and can be thought of as how much more do I need to add to 7 to get to 13?

MP.8 Look for and express regularity in repeated reasoning.

Grade one students begin to look for regularity in problem structures when solving mathematical tasks. For example, students add three one-digit numbers by using strategies such as “make a ten” or doubles. Students recognize when and how to use strategies to solve similar problems. For example, when evaluating $8 + 7 + 2$, a student may say, “I know that 8 and 2 equals 10, then I add 7 to get to 17. It helps if I can make a 10 out of two numbers when I start.” Students use repeated reasoning while solving a task with multiple correct answers. For example, solve the problem, “There are 12 crayons in the box. Some are red and some are blue. How many of each could there be?” Students use repeated reasoning to find pairs of numbers that add up to 12 (e.g., the 12 crayons could include 6 of each color ($6 + 6 = 12$), 7 of one color and 5 of another ($7 + 5 = 12$), etc.)

(Adapted from Ohio Department of Education, Arizona Department of Education, California Mathematics Framework, and North Carolina Department of Public Instruction) Standards for Mathematical Practice: Grade 1 | October 2017

Connection to Standards Based Grading

Teachers at Big Hollow have worked to unpack and understand more deeply the learning targets that align with our goals of students grasping key mathematical concepts. Through this work teachers have prioritized standards, created learning targets, and developed proficiency scales aligned with each prioritized standard. This work enables learning to be more visible for student learning and allows students to be reflective learners. By students engaging in reflective practice, they will be able to more accurately determine where they are in relation to the learning journey and develop goals to continue to improve their mastery of skills. These proficiency scales are linked below, as well as on our Teaching and Learning page. This is the “rubric” teachers use to report final grades.

Grade 1 Scope & Sequence

Unit	Standards	Trimester/Time Frame	Proficiency Scales
Unit 1: Adding, Subtracting, and Working with Data	1.MD.4: Organize, represent, and interpret data with 3 categories, answer questions about data 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10	Trimester 1 3 weeks	1.OA.6
Unit 2: Addition and Subtraction Story Problems	1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.3: Apply properties to add and subtract-commutative, associative 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.MD.4: Organize, represent, and interpret data with 3 categories, answer questions about data	Trimester 1 3-4 weeks	1.OA.1 1.OA.6
Unit 3: Adding and Subtracting within 20	1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.3: Apply properties to add and subtract-commutative, associative 1.OA.4: Understand subtraction as an unknown addend	Trimester 1-2 5-6 weeks	1.OA.1 1.OA.6

	1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.2: Understand that digits represent tens and ones (introduced, but will be fully assessed in Unit 4)		
Unit 4: Numbers to 99	1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.2: Understand that digits represent tens and ones 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.NBT.6: Subtract multiples of 10 within 100 using manipulatives, pictures, and words 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers	Trimester 2 4-5 weeks	1.NBT.2 1.NBT.3
Unit 5: Adding within 100	1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.2: Understand that digits represent tens and ones 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.NBT.6: Subtract multiples of 10 within 100 using manipulatives, pictures, and words 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking	Trimester 2-3 3 weeks	1.NBT.4

	apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers		
Unit 6: Length Measurements within 120 Units	1.MD.1: Order objects by length 1.MD.2: Measure length 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	Trimester 3 3-4 weeks	1.MD.1 1.MD.2
Unit 7: Geometry and Time	1.G.1: Build and draw shapes to possess defining attributes 1.G.2: Compose 2-d shapes or 3-d shapes to create composite shapes 1.G.3: Partition circles and rectangles into halves and fourths 1.MD.3: Tell and write time in hours and $\frac{1}{2}$ hours 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.4: Add within 100 using objects, pictures and words 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	Trimester 3 3-4 weeks	1.G.3

Unit 8: Putting It All Together Review Unit	1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words	Trimester 3 2-3 weeks	
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Unit 1: Adding, Subtracting, and Working with Data
Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.OA.6: Add and subtract within 20, with fluency within 10	- How can we apply different strategies to add and subtract within 10? - How can you represent and interpret categorical data?	- category - data - difference - sum - survey
Supporting Standards: 1.MD.4: Organize, represent, and interpret data with 3 categories, answer questions about data 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand that...</i> - They can add and subtract within 10. - Add and Subtract within 10 - Build toward fluency by adding and subtracting within 10 in a way that makes sense to them. - They can answer questions about data. - Show Us Your Data - Organize and represent data. - What Does the Data Tell Us? - Interpret data representations to ask and answer questions.	<i>Students will be skilled at (be able to do)...</i> - Count and represent a collection of objects. - Relate counting to addition. - Write addition expressions within 10 based on images and add in a way that makes sense to them. - Add and subtract within 10. - Add within 10, given expressions with an addend of 1 or 2, in a way that makes sense to them. - Subtract within 10, given expressions in which 1 or 2 is subtracted, in a way that makes sense to them. - Describe (orally) the categories chosen for sorting math tools and tell how many in each category. - Sort math tools into categories in a way that makes sense to them.	

Unit 2: Addition and Subtraction Story Problems

Approximate Time Frame: 3-4 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.3: Apply properties to add and subtract-commutative, associative 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	• How do you solve new types of story problems within 10 using the relationship between addition and subtraction? • How can you prove an equation is true? • How can we represent a story problem with more than 1 equation?	<i>No new terms are included in this unit.</i>
Supporting Standards: 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.MD.4: Organize, represent, and interpret data with 3 categories, answer questions about data		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> * 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	

Students will understand that...

- They can solve new types of story problems within 10.
- The meaning of the equal sign.
- They can connect story problems to equations.

Students will know...

- Add To and Take From Story Problems
 - Solve Add To and Take From, Result Unknown and Add To, Change Unknown story problems.
 - Understand the meaning of the equal sign.
- Put Together/Take Apart Story Problems
 - Solve Put Together/Take Apart problems with unknowns in different positions.
 - Write equations to represent problems.
- Compare Story Problems
 - Relate addition and subtraction.
 - Solve Compare, Difference Unknown problems.
- All Kinds of Story Problems
 - Apply understanding of the meaning of the equal sign to make sense of equations with a symbol for the unknown.
 - Solve different types of story problems, limited to those learned in this unit.

Students will be skilled at (be able to do)...

- Represent and solve Add To and Take From, Result Unknown problems in a way that makes sense to them.
- Write an expression to represent the action in a story problem.
- Write addition or subtraction equations to represent a story problem and orally explain why it matches.
- Identify the answer to a story problem in an equation.
- Solve Add To, Change Unknown story problems in a way that makes sense to them.
- Solve Add To, Result or Change Unknown, and Take From, Result Unknown story problems.
- Write an equation and explain why it matches a story problem.
- Tell and solve math stories based on a representation.
- Solve Put Together, Total Unknown story problems in a way that makes sense to them.
- Write an equation and explain why it matches a story problem.
- Relate different equations to the same story problem.
- Solve Put Together/Take Apart problems with the result, one addend, or both addends unknown.
- Write an equation that matches the story problem, and put a box around the unknown number.
- Add and subtract within 10 in a way that makes sense to them.
- Relate counting to addition and subtraction.
- Solve Compare, Difference Unknown story problems in a way that makes sense to them.
- Solve Compare, Difference Unknown story problems through a data context.
- Match addition and subtraction equations to a story problem.
- Write addition and subtraction equations to represent story problems.
- Tell and solve math stories based on a representation.
- Identify how a variety of story types are the same and different.
- Solve a story problem and write an equation to match the problem.
- Interpret equations with a symbol for the unknown in relation to story problems.
- Write two different equations to match a story problem.
- Write a story problem to match an equation.
- Use data to ask and answer questions.
- Use data to write equations.
- Write equations that represent a story problem.

Assessments

- ☐ Pre-Assessment
- ☒ Checks for Understanding

- ☒ Summative Assessment
- ☐ Performance-Based Task

Unit 3: Adding and Subtracting within 20

Approximate Time Frame: 5-6 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.3: Apply properties to add and subtract-commutative, associative 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.NBT.2: Understand that digits represent tens and ones	• How can we apply different strategies to add and subtract within 20? • How can we use the commutative property to solve addition problems? • How can the relationship between addition and subtraction be used to solve problems?	• teen number
Supporting Standards: 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> * 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand that...</i>	<i>Students will be skilled at (be able to do)...</i>	

- They can add and subtract within 20.
 - Develop Fluency with Addition and Subtraction within 10
 - Build toward fluency with adding and subtracting within 10.
 - Add and Subtract using Ten as a Unit
 - Add and subtract one-digit numbers from teen numbers without composing or decomposing a ten.
 - Find the value that makes an addition or subtraction equation true, involving 10.
 - Understand 10 ones as a ten and the numbers 11 to 19 as a ten and some ones.
 - Add within 20
 - Add within 20, including 3 addends.
 - Subtract within 20
 - Subtract within 20.

- Add within 10.
- Identify known sums within 10.
- Understand and apply counting on as a method for addition.
- Understand and use the commutative property.
- Interpret equations with expressions on both sides of the equal sign.
- Look for and make use of patterns in addition expressions that have a sum of 10.
- Use the relationship between addition and subtraction to find the differences within 10.
- Solve Add To and Put Together story problems with unknowns in all positions.
- Compose and decompose teen numbers into 1 ten plus some number of ones.
- Understand 10 ones as a unit called a ten.
- Find the value that makes an addition equation true, where one addend is 10.
- Find the value that makes an equation true where the total is a teen number.
- Use the relationship between addition and subtraction to find missing values.
- Add within 20 when one addend is a teen number.
- Add and subtract single-digit numbers from teen numbers without composing or decomposing a ten.
- Solve Take From, Result or Change Unknown story problems.
- Solve story problems within 20 with three addends, two of which make a ten.
- Make sense of equations with addition expressions on both sides of the equal sign (For example, $3+6+7=10+6$).
- Use the associative property to make a ten when adding three numbers.
- Analyze methods for adding within 20 that involve making a ten.
- Look for and use patterns in addition expressions to add within 20.
- Make a ten to find the sum of two numbers within 20.
- Analyze methods for adding within 20.
- Use addition methods flexibly to find sums based on the numbers in a given problem.
- Solve story problems with three addends.
- Students add two and three numbers within 20.
- Students write equations with three addends.
- Subtract within 20 in a way that makes sense to them.
- Use the unit of a ten to find differences within 20.
- Analyze and use counting up and taking away as methods to subtract.
- Use subtraction methods flexibly to find differences based on the numbers in a given problem.
- Solve addition and subtraction story problems with unknowns in all positions.

	• Add and subtract within 20. • Add within 20 with three addends. • Write and solve story problems.
Assessments	
☐ Pre-Assessment ☐ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task

Unit 4: Numbers to 99
Approximate Time Frame: 4-5 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
<u>Priority Standards:</u> 1.NBT.2: Understand that digits represent tens and ones 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	How can we extend our understanding of tens and ones to represent & compare numbers up to 99?	- estimate - greater than - less than - two-digit number
<u>Supporting Standards:</u> 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.NBT.6: Subtract multiples of 10 within 100 using manipulatives, pictures, and words 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.5: Relate counting to addition and subtraction 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		

Knowledge and Understanding:	Skills:
<i>Students will understand that...</i> ● They can develop an understanding of place value for numbers up to 99. ● They can start learning the base-ten system. ● They can learn that units of tens and ones will be the foundation for base-ten work, including decimals, that continues through grade 5. <i>Students will know...</i> ● Units of Ten ○ Add and subtract multiples of 10. ○ Represent the base-ten structure of multiples of 10 up to 90 using drawings, numbers and words. ● Tens and Ones ○ Add and subtract multiples of 10. ○ Represent the base-ten structure of numbers up to 99 using drawings, numbers, and words. ○ Understand that the two digits of a two-digit number represent amounts of tens and ones. ● Compare Numbers to 99 ○ Compare two two-digit numbers based on the values of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$. ● Different Ways to Make a Number ○ Represent two-digit numbers in different ways, using different amounts of tens and ones.	<i>Students will be skilled at (be able to do)...</i> ● Count up to 60 objects (multiples of 10) in a way that makes sense to them. ● Interpret different base-ten representations of multiples of 10. ● Add and subtract 10 from multiples of 10. ● Add and subtract multiples of 10 from multiples of 10. ● Add and subtract within 20. ● Count up to 60 objects in a way that makes sense to them. ● Read two-digit numbers. ● Understand any two-digit number as composed of tens and ones. ● Interpret different base-ten representations of two-digit numbers (drawings, words, and addition expressions). ● Represent the base-ten structure of two-digit numbers with drawings, words, and addition expressions. ● Write numbers to represent different base-ten representations. ● Add a two-digit number and a multiple of 10. ● Mentally find 10 more or 10 less than a number. ● Add tens to two-digit numbers. ● Count and represent a collection. ● Compare two-digit numbers based on the value of the tens and ones digits. ● Use “greater than” and “less than” to describe comparisons. ● Interpret comparison statements that use $<$, $>$, or $=$. ● Understand that the $>$ symbol means greater than and the $<$ symbol means less than. ● Read and write comparisons using $<$, $>$, or $=$. ● Compare and order numbers based on the value of the tens and ones digits. ● Count objects in a collection and record the count. ● Create, compare, and order two-digit numbers. ● Write numbers up to 99. ● Understand that a two-digit number can be represented in different ways using tens and ones. ● Identify two-digit numbers represented in different ways. ● Represent two-digit numbers in different ways using tens and ones. ● Compare two-digit numbers represented in different ways. ● Compare numbers within 99. ● Use place value understanding to identify two-digit numbers. ● Estimate, count, and represent collections of up to 99 objects.
Assessments	
☐ Pre-Assessment ☐ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task

Unit 5: Adding within 100
Approximate Time Frame: 3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.NBT.2: Understand that digits represent tens and ones 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.6: Add and subtract within 20, with fluency within 10	How can you use place value understanding and properties of operations to add within 100?	<i>No new terms are included in this unit.</i>
Supporting Standards: 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.NBT.6: Subtract multiples of 10 within 100 using manipulatives, pictures, and words 1.OA.5: Relate counting to addition and subtraction 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> * 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will understand that...</i>	<i>Students will be skilled at (be able to do)...</i>	

• They can use place value understanding and properties of operations to add within 100. <i>Students will know...</i> • Add Without Making a Ten ○ Add within 100 without composing a ten. ○ Use equations to represent addition methods. • Make a Ten: Add One- and Two-digit Numbers ○ Add a one-digit and a two-digit number within 100 that require composing a ten. ○ Use equations to represent addition methods. • Make a Ten: Add Within 100 ○ Add 2 two-digit numbers within 100, that require composing a ten. ○ Use equations to represent addition methods.	• Add tens or ones to two-digit numbers, without composing a ten, in a way that makes sense to them. • Add 2 two-digit numbers, without composing a ten, using methods based on place value. • Make sense of equations that represent addition methods. • Add 2 two-digit numbers, without composing a ten, using methods based on place value. • Write equations to represent addition methods. • Add within 100, without composing a ten. • Add a one-digit and a two-digit number, with composing a ten, in a way that makes sense to them. • Add a one-digit and a two-digit number, with composing a ten, using place value understanding and the properties of operations. • Make sense of equations that represent addition methods. • Add a one-digit and a two-digit number and recognize when a new ten will be composed. • Write equations that represent addition methods. • Add within 100. • Add 2 two-digit numbers within 100, with composing a ten, in a way that makes sense to them. • Add two-digit numbers by adding tens and tens and ones and ones. • Add 2 two-digit numbers using methods based on place value and properties of operations. • Make sense of equations that represent addition methods. • Write equations to represent addition methods. • Add numbers within 100.
Assessments	
☐ Pre-Assessment ☐ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task

Unit 6: Length Measurements within 120 Units

Approximate Time Frame: 3-4 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
<u>Priority Standards:</u> 1.MD.1: Order objects by length 1.MD.2: Measure length 1.NBT.3: Compare 2 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	• How can we measure different lengths accurately? • How can we compare the lengths of different objects using another object? • How can you solve addition and subtraction story • problems with unknowns in all positions?	• length
<u>Supporting Standards:</u> 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.4: Understand subtraction as an unknown addend 1.OA.5: Relate counting to addition and subtraction		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. * 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	

Students will know and understand that...

- They can measure length and count measurement units up to 120.
 - From Direct to Indirect Comparisons
 - Compare the lengths of objects indirectly.
 - Order objects by length.
 - Measure by Iterating up to 120 Length Units
 - Count groups of up to 120 objects and write a number to represent them.
 - Lay length units end-to-end with no gaps or overlaps and count the units to determine length.
- They can solve addition and subtraction story problems with unknowns in all positions.

Students will be skilled at (be able to do)...

- Compare the length of objects by lining up the endpoints.
- Order three objects by length and use language such as “shorter than” and “longer than” to describe the relationship between the lengths.
- Compare the length of two objects indirectly by using a third object.
- Choose and use objects to compare lengths of other objects indirectly.
- Add within 100.
- Compare addition and subtraction expressions to 20.
- Measure objects in connecting cube side lengths using connecting cube towers.
- Understand that a connecting cube tower with x cubes in it can be described as being “x cubes long.”
- Measure length by iterating same-size length units without gaps or overlaps.
- Measure lengths of objects using different length units.
- Understand that the number associated with a length depends on the chosen length unit.
- Measure length and count the number of length units for quantities up to 110.
- Read numbers to 110.
- Measure length and determine an efficient way to count the number of length units up to 120.
- Read and write numbers to 120.
- Measure length by iterating same-size length units without gaps or overlaps.
- Use addition and subtraction to solve story problems about measurement.
- Analyze and solve Compare story problems with unknowns in all positions.
- Solve Take From story problems, with unknowns in all positions, in a way that makes sense to them.
- Analyze story problems with unknowns in all positions.
- Match addition and subtraction equations to story problems.
- Use addition and subtraction to solve story problems with unknowns in all positions.
- Write equations to represent story problems.
- Count groups of up to 120 objects and write a number to represent them.
- Measure length by iterating same-size length units without gaps or overlaps.
- Write equations to represent story problems.

Assessments

- ☐ Pre-Assessment
- ☐ Checks for Understanding

- ☐ Summative Assessment
- ☐ Performance-Based Task

Unit 7: Geometry and Time
Approximate Time Frame: 3-4 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.G.3: Partition circles and rectangles into halves and fourths 1.NBT.4: Add within 100 using objects, pictures and words 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false	• How can you describe shapes using their attributes? • How can you create shapes to include specific attributes? • How can you partition shapes into equal pieces? • How can you tell time to the hour and half hour?	• a fourth • a half • fourths • half-past • halves • o'clock
Supporting Standards: 1.G.1: Build and draw shapes to possess defining attributes 1.G.2: Compose 2-d shapes or 3-d shapes to create composite shapes 1.MD.3: Tell and write time in hours and ½ hours 1.NBT.1: Count to 120, read, write, and represent with objects and numerals 1.NBT.5: Find 10 more or 10 less than a given 2-digit number and explain		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. * 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand that...</i> • They can reason with shapes and their attributes. ○ Flat and Solid Shapes ■ Describe attributes of two-dimensional and three-dimensional shapes.	<i>Students will be skilled at (be able to do)...</i> • Sort three-dimensional shapes in a way that makes sense to them. • Use their own language to describe three-dimensional shapes. • Compose shapes from other three-dimensional shapes. • Sort two-dimensional shapes in a way that makes sense to them.	

■ Compose two- dimensional or three-dimensional shapes to create a composite shape. ■ Build and draw shapes to possess defining attributes. ● They can split shapes into equal pieces. ○ Halves and Quarters ■ Partition circles and rectangles into two and four equal pieces, describe the pieces with words (halves, fourths, and quarters) ● They can tell and write time to the hour and half hour.	● Use their own language to describe two-dimensional shapes. ● Draw two-dimensional shapes based on shared attributes. ● Use increasingly precise language to describe the attributes of two-dimensional shapes. ● Draw triangles based on their defining attributes. ● Identify defining and non-defining attributes of triangles. ● Draw squares and rectangles based on defining attributes. ● Identify defining and non-defining attributes of rectangles and squares. ● Recognize a square as a special rectangle. ● Compose shapes in different ways. ● Add and subtract within 20. ● Compose objects using solid shapes and describe the objects. ● Find, describe, and compare shapes. ● Determine whether shapes are partitioned into equal pieces. ● Partition circles and rectangles into halves and fourths. ● Describe the whole as two of the halves or four of the fourths. ● Partition circles and rectangles into halves and fourths and describe one piece as “a half of”, “a fourth of” or “a quarter of” the whole shape. ● Compare the size of halves and fourths of the same shape. ● Understand that for halves and fourths, partitioning a shape into more equal pieces creates smaller pieces. ● Add within 100. ● Compose objects using solid shapes and describe the objects. ● Recognize and describe shapes seen in picture books. ● Subtract within 10. ● Understand time as a unit of measurement. ● Relate halves of circles to half hours. ● Tell and write time in hours and half hours. ● Relate time to a daily schedule. ● Describe two-dimensional and three-dimensional shapes.
Assessments	
☐ Pre-Assessment ☐ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task

Unit 8: Putting It All Together
Approximate Time Frame: 2-3 weeks

DESIRED RESULTS		
Content Standards:	Essential Questions:	Essential Vocabulary:
Priority Standards: 1.OA.1: Solve word problems involving addition and subtraction within 20 for adding to, taking from, putting together, taking apart, and comparing situations with unknowns in all 3 positions using objects, pictures, and equations 1.OA.6: Add and subtract within 20, with fluency within 10 1.OA.7: Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false 1.NBT.3: Compare two 2-digit numbers 1.NBT.4: Add within 100 using objects, pictures and words	How can you consolidate your understanding of concepts and skills from this course and work towards fluency goals?	<i>No new terms are introduced in this unit.</i>
Supporting Standards: 1.OA.2: Solve word problems involving 3 whole number addends within 20 using objects, pictures, and equations 1.OA.8: Determine unknowns in addition or subtraction equations with whole numbers 1.NBT.1: Count to 120, read, write, and represent with objects and numerals		
Mathematical Practices		
Highlighted Mathematical Practices (Practices to be explicitly emphasized are indicated with an *). <i>Students will be able to independently use their learning to...</i> * 1. Make sense of problems and persevere in solving them. * 2. Reason abstractly and quantitatively. * 3. Construct viable arguments and critique the reasoning of others. * 4. Model with mathematics. 5. Use appropriate tools strategically. * 6. Attend to precision. * 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.		
Acquisition		
Knowledge and Understanding:	Skills:	
<i>Students will know and understand that...</i> They can consolidate and solidify their understanding of various concepts and skills related to major work of the grade. They also continue to work	<i>Students will be skilled at (be able to do)...</i> Develop fluency with sums within 10.	

toward fluency goals of the grade. ○ Add and Subtract within 20 ■ Add and subtract within 20. ■ Fluently add and subtract within 10. ○ Story Problems ■ Solve Add To and Take From, Change Unknown story problems in a way that makes sense to them. ■ Solve Compare, Difference Unknown story problems in a way that makes sense to them. ■ Solve Put Together/Take Apart, Addend Unknown story problems in a way that makes sense to them. ○ Numbers to 120 ■ Apply place value understanding to represent a quantity with written numerals and expressions. ■ Count a group of up to 120 objects.	● Develop fluency with addition and subtraction within 10, using the relationship between addition and subtraction. ● Add and subtract within 20. ● Solve Add To and Take From, Change Unknown story problems in a way that makes sense to them. ● Solve Put Together/Take Apart, Addend Unknown story problems in a way that makes sense to them. ● Solve Compare, Difference Unknown story problems in a way that makes sense to them. ● Count to 120, starting at a number other than 1. ● Organize, count, and represent a collection of up to 120 objects or images. ● Represent two-digit numbers in different ways. ● Apply place value understanding to solve number riddles. ● Apply place value reasoning to write and solve number riddles.
Assessments	
☐ Pre-Assessment ☐ Checks for Understanding	☐ Summative Assessment ☐ Performance-Based Task