

ELA | Math | Science | Social Studies



Year Long English Language Arts Standards:

Reading Foundational

- **RF3a:** Distinguish long and short vowels when reading regularly spelled one-syllable words.
- **RF3b:** Know spelling-sound correspondences for additional common vowel teams.
- **RF3c:** Decode regularly spelled two-syllable words with long vowels.
- **RF3d:** Decode words with common prefixes and suffixes.
- **RF3e:** Identify words with inconsistent but common spelling-sound correspondences.
- RF4a: Read on-level text with purpose and understanding.
- **RF4b:** Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
- **RF4c:** Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
- **RF4d:** Recognize and read grade-appropriate irregularly spelled words.

Writing

- W5: With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
- W6: With guidance and support from adults, use a variety of tools to produce and publish writing, including digital tools and collaboration with peers.
- **W8:** Recall information from experiences or gather information from provided sources to answer a question.

Language

- **L2d** Generalize learned spelling patterns when writing words (e.g., cage \rightarrow badge; boy \rightarrow boil).
- L2e: Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
- L3a: Compare formal and informal uses of English.
- L4a: Use sentence-level context as a clue to the meaning of a word or phrase.
- L4b: Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).



- L4c: Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
- L4d: Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).
- L4e: Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
- L6: Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., When other kids are happy that makes me happy).

Speaking and Listening

- **SL1:** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **SL2:** Recount or describe key ideas or details from written texts read aloud or information presented orally or through other media.
- **SL3:** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue
- **SL4:** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
- **SL5:** With guidance and support, create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts and feelings.
- **SL6:** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)



Semester 1 (August – December)

Unit A – Fiction Text Structure/Narrative (6 Weeks)

Overarching Standards for Unit A

Reading Literary

	RL1:	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.		
	RL2:	Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.		
	RL5:	Describe the overall structure of a story including describing how the beginning introduces the story, the middle provides major events and challenges, and the ending concludes the action.		
Writing				
	W3:	Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.		
Language				
	L1a:	Use collective nouns (e.g., group).		
	L1b:	Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).		
Speaking and Listening				
	SL1a:	Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).		
	SL1b:	Build on others' talk in conversations by linking their comments to the remarks of others.		
	SL1c:	Ask for clarification and further explanation as needed about the topics and texts under discussion.		

Supporting Standards for Unit A

Reading Literary

RL3: Describe how characters in a story respond to major events and challenges.



- **RL4:** Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- **RL7:** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

Language

- L1g: Creates documents with legible handwriting.
- L2a: Capitalize holidays, product names, and geographic names.

Unit B – Nonfiction Text Structure/Narrative (6 Weeks)

Overarching Standards for Unit B

Reading Informational

	RI1:	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
	RI5	Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key fac information in a text efficiently.	
Writing	riting		
	W2:	Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.	
Language			
	L1d:	Form and use the past tense of frequently occurring irregular verbs (e.g., sat, hid, told).	
	L2a:	Capitalize holidays, product names, and geographic names.	

Supporting Standards for Unit B

Reading Informational

RI2: Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.



- RI3: Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- **RI4:** Determine the meanings of words and phrases in a text relevant to a grade 2 topic or subject area.
- **RI7:** Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

Writing

W7: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

Language

- L1a: Use collective nouns (e.g., group).
- L1g: Creates documents with legible handwriting.

Unit C – Reasons and Evidence/Opinion (6 Weeks)

Overarching Standards for Unit C

Reading Informational

	RI1:	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text
	RI2	Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.
	RI3:	Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
	RI9:	Compare and contrast the most important points presented by two texts on the same topic.
Writing		
	W1:	Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.
anguag	e	
	L1e:	Use adjectives and adverbs and choose between them depending on what is to be modified.
	L2b:	Use commas in greetings and closings of letters.



Supporting Standards for Unit C

Reading Literary

- RL1: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text
- **RL3:** Describe how characters in a story respond to major events and challenges.
- **RL4:** Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- **RL7:** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

Reading Informational

- RI4: Determine the meanings of words and phrases in a text relevant to a grade 2 topic or subject area.
- **RI6:** Identify the main purpose of a text, including what the author wants to answer, explain, or describe
- **RI7:** Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- RI8: Describe how reasons support specific points the author makes in a text.

Writing

W7: Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

Language

- L1g: Creates documents with legible handwriting.
- L5a: Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).

2nd Grade English Language Arts



Semester 2 (January – May)

Unit D – Analyze Fiction Text /Narrative (8 Weeks)

Overarching Standards for Unit D

Reading Literary

	RL1:	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.	
	RL2:	Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.	
	RL5:	Describe the overall structure of a story including describing how the beginning introduces the story, the middle provides major events and challenges, and the ending concludes the action.	
	RL9:	Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	
Writing			
	W3:	Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.	
Language			

- L1c: Use reflexive pronouns (e.g., myself, ourselves).
 - **L1f:** Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).
 - L2c: Use an apostrophe to form contractions and frequently occurring possessives

Supporting Standards for Unit D

Reading Literary

- **RL3:** Describe how characters in a story respond to major events and challenges.
- **RL4:** Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- **RL6:** Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

RL7: Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

Language

- L1g: Creates documents with legible handwriting.
- L5b: Form and use frequently occurring irregular plural nouns (e.g., feet, children, teeth, mice, fish).

Unit E – Compare and Contrast (8 Weeks)

Overarching Standards for Unit E

Reading Informational

- **RI1:** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text
- **RI2** Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.
- **RI5:** Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- **RI9:** Compare and contrast the most important points presented by two texts on the same topic.

Writing

W1: Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section.

Language

L1f: Produce, expand, and rearrange complete simple and compound sentences (e.g., The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy).

Supporting Standards for Unit E

Reading Literary

- **RL6:** Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
- **RL9:** Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.



Reading Informational

- RI3: Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- **RI4:** Determine the meanings of words and phrases in a text relevant to a grade 2 topic or subject area.
- **RI6:** Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- **RI7:** Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- **RI8:** Describe how reasons support specific points the author makes in a text.

Writing

- **W2:** Write informative/explanatory text in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
- W7: Participate in shared research and writing projects.

Language

L5: Demonstrate understanding of word relationships and nuances in word meanings.



Year Long Mathematical Practices (MP):

Display perseverance and patience in problem-solving. Demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, and effective collaboration, and expression. Seek help and apply feedback. Set and monitor goals.

- **MP.1** Make sense of problems and persevere in solving them.
- MP.2 Reason abstractly and quantitatively
- **MP.3** Construct viable arguments and critique 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.



Semester 1 (August – December)

Unit 1 – Using Tables, Graphs, and Charts (2-3 weeks)

In this unit students will use statistical investigative questions to learn more about their class. Students will have the opportunity to collect, analyze and display data through picture and bar graphs. Throughout this unit, students will extend their understanding of the value of numbers to 1,000 by representing, ordering, and comparing. Students will demonstrate an understanding of counting sequences. Students will solve problems involving addition and subtraction within 100 using strategies based on place value, including decomposing a ten, the properties of operations, relationship between addition and subtraction, and part-whole strategies. Students will begin to develop fluency using mental math and strategies.

Overarching Standards for Unit 1

- **MDR.5:** Estimate and measure the lengths (height) of objects in my class to solve problems found in real-life using standard units of measurement, including inches, feet, and yards.
 - **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
 - **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 100 for this unit.
- PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.

- **MDR.5.4:** Ask questions about my class, including problems with length (height), and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
- NR.1.1: Explain the value of a three-digit number(up to 1000) using hundreds, tens, and ones in a variety of ways.
- **NR.1.2:** Count forward and backward by 1s from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward to 1000 by 25s from 0.
- **NR.1.3:** Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.



- **NR.2.1:** Add and subtract fluently within 20 using a variety of mental math strategies.
- NR.2.2: Find 10 more or 10 less than a given three-digit number. Find 100 more or 100 less than a given three-digit number.
- **NR.2.3:** Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.
- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **MDR.5.5:** Represent whole-number sums and differences within a standard unit of measurement on a number line diagram up to 100.
- **PAR.4.1:** Identify, describe, and create a numerical pattern up to 100 that represents a real-life situation resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- **PAR.4.2:** Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction within 20.



Unit 2 – Building Fluency with Addition and Subtraction (4-5 weeks)

In Unit 2, students will solve addition and subtraction problems within 100 using strategies based on place value, including decomposing a ten, the properties of operations, relationship between addition and subtraction, and part-whole strategies. Students will solve real-life addition and subtraction problems including problems involving charts and graphs. Students will continue to develop their understanding of the value of numbers to 1,000 by representing, ordering, and comparing. Students will demonstrate an understanding of counting sequences. Students will continue to develop fluency using mental math and strategies.

Overarching Standards for Unit 2

- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 100 for this unit.
- **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
- **PAR.4**: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.
- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards

- **NR.2.1:** Add and subtract fluently within 20 using a variety of mental math strategies.
- NR.2.2: Find 10 more or 10 less than a given three-digit number. Find 100 more or 100 less than a given three-digit number.
- **NR.2.3:** Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.
- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **MDR.5.4:** Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems involving numbers up to 100 relevant to everyday life.
- NR.1.1: Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.





- **NR.1.2:** Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.
- **NR.1.3:** Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.
- **PAR.4.1:** Identify, describe, and create a numerical pattern up to 100 that represents a real-life situation resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.



Unit 3– Measuring Lengths and Distances (3-4 weeks)

In Unit 3, students will construct measurement instruments. Students will learn about standard units to estimate, measure, and compare length and distances (inches, feet, and yards). Students will use addition and subtraction to solve problems involving measurement. Students will continue to develop their understanding of the value of numbers to 1,000 by representing, ordering, and comparing. Students will demonstrate an understanding of counting sequences. Students will solve problems involving addition and subtraction within 1,000. Students will continue to develop fluency using mental math and strategies.

Overarching Standards for Unit 3

- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards.
 - **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
 - **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 100 for this unit.
- **PAR.4**: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.

- MDR.5.1: Construct simple measuring instruments using unit models. Compare unit models to rulers.
- **MDR.5.2:** Estimate and measure the length of an object or distance to the nearest whole unit using appropriate units and standard measuring tools.
- **MDR.5.3:** Measure to determine how much longer one object is than another and express the length difference in terms of a standard-length unit.
- MDR.5.5: Represent whole-number sums and differences within a standard unit of measurement on a number line diagram.
- **NR.1.1:** Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.
- **NR.1.2:** Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.



- **NR.1.3:** Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.
- **NR.2.3:** Solve problems involving the addition and subtraction of two-digit and three-digit numbers, and up to four two-digit numbers using part-whole strategies. Include problems with numerical values up to 1000.
- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **PAR.4.1:** Identify, describe, and create a numerical pattern up to 100 that represents a real-life situation resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- PAR.4.2: Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction within 20.



Unit 4 – Extending Place Value Understanding to 1,000 (4-5 weeks)

In this unit, students will extend their understanding of the value of numbers to 1,000 by representing, ordering, and comparing. Students will demonstrate an understanding of counting sequences. Students will solve problems involving addition and subtraction within 1,000 using strategies based on place value, including decomposing a ten, the properties of operations, relationship between addition and subtraction, and part-whole strategies. Students will continue to develop fluency using mental math and strategies.

Overarching Standards for Unit 4

- **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- **PAR.4**: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.
- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards

- **NR.1.1:** Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.
- **NR.1.2:** Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.
- **NR.1.3:** Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.
- **NR.2.2:** Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number up to 1000.
- NR.2.3: Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies up to 1000.
- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.



- **PAR.4.1:** Identify, describe, and create a numerical pattern up to 1000 that represents a real-life situation resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- PAR.4.2: Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction within 20.

MDR.5.5: Represent whole-number sums and differences within a standard unit of measurement on a number line diagram up 100.



Semester 2 (January – May)

Unit 5 - Representing Sums and Differences within 1000 (4-5 weeks)

Students will create, locate numbers, and represent whole number sums and differences within a standard unit of measurement on a number line diagram. Students will use these diagrams to illustrate part-whole strategies. Students will continue to develop their understanding of the value of numbers to 1,000 by representing, ordering, and comparing. Students will demonstrate an understanding of counting sequences. Students will apply the understanding of addition to 100 to solve real world problems involving addition and subtraction within 1,000.

Overarching Standards for Unit 5

- **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.
- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards

- **NR.1.1:** Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.
- **NR.1.2:** Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0.
- **NR.1.3:** Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =, and < symbols to record the results of comparisons.
- **NR.2.1:** Add and subtract fluently within 20 using a variety of mental math strategies.
- NR.2.2: Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number.
- **NR.2.3:** Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.



- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **PAR.4.1:** Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- PAR.4.2: Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction up to 20.
- **MDR.5.4:** Ask questions about lengths and intervals and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
- **MDR.5.5:** Represent whole-number sums and differences within a standard unit of measurement on a number line diagram up to 100.



Unit 6 – Exploring Geometry and Patterns (3-4 weeks)

Students reason about attributes (features) of shapes as they describe, compare, and draw them. Students identify lines of symmetry in everyday objects. Students partition circles and rectangles and recognize that equal shares may be different shapes. Students will use shapes to create growing and shrinking patterns and identify and describe these patterns using addition and subtraction.

Overarching Standards for Unit 6

- **GSR.7:** Draw and partition shapes and other objects with specific attributes and conduct observations of everyday items and structures to identify how shapes exist in the world.
- PAR.4: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.
- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards

- **GSR.7.1:** Describe, compare and sort 2-D shapes including polygons, triangles, quadrilaterals, pentagons, hexagons, and 3-D shapes including rectangular prisms and cones, given a set of attributes.
- **GSR.7.2:** Identify at least one line of symmetry in everyday objects to describe each object as a whole.
- **GSR.7.3:** Partition circles and rectangles into two, three, or four equal shares. Identify and describe equal-sized parts of the whole using fractional names ("halves," "thirds," "fourths", "half of," "third of," "quarter of," etc.)
- **GSR.7.4:** Recognize that equal shares of identical wholes may be different shapes within the same whole.
- NR.2.1: Add and subtract fluently within 20 using a variety of mental math strategies.
- **PAR.4.1:** Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- **PAR.4.2:** Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction up to 20.
- **MDR.5.5:** Represent whole-number sums and differences within a standard unit of measurement on a number line diagram.



Unit 7 – Measuring Time and Money (2-3 weeks)

In Unit 7 students will learn to read analog and digital clocks to the nearest 5 minutes, estimate and measure elapsed time to the hour and half hour. Students will use coins learned in previous grades to determine the value of a combination of coins or bills. Students will use addition and subtraction to solve problems involving time and money. *Students continue to review and develop their understanding of the value of numbers to 1,000, the counting sequence, and solve real-world problems involving + and - within 1,000.

Overarching Standards for Unit 7

- **MDR.6:** Solve real-life problems involving time and money.
 - **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- **PAR.4**: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.

- **MDR.6.1:** Tell and write time from analog and digital clocks to the nearest five minutes. Estimate elapsed time using a timeline, to the hour or $\frac{1}{2}$ hour on the hour or $\frac{1}{2}$ hour. Measure elapsed time on a timeline, to the hour or $\frac{1}{2}$ hour on the hour or $\frac{1}{2}$ hour.
- **MDR.6.2:** Find the value of a group of coins. Determine combinations of coins that equal a given amount that is less than one hundred cents. Solve problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and \$ symbols appropriately in the answer.
- NR.2.1: Add and subtract fluently within 20 using a variety of mental math strategies.
- NR.2.2: Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number.
- NR.2.3: Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies.
- **NR.2.4:** Add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **PAR.4.1:** Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- PAR.4.2: Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction within 20.



Unit 8 – Reasoning with Equal Groups (3-4 weeks)

In this unit, students will work with equal groups. They will create arrays to solve problems. Students will extend their knowledge of equal groups to determine odd and even. Students will write and solve equations to represent equal groups and arrays with up to 5 rows and 5 columns. Students will also identify, describe, create, and extend numerical patterns in addition and subtraction as related to equal groups and arrays. *Students will continue to review and develop their understanding of the value of numbers to 1,000, the counting sequence, and solve real world problems involving addition and subtraction within 1,000.

Overarching Standards for Unit 8

- **NR.3:** Work with equal groups to gain foundations for multiplication through real-life, mathematical problems.
- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- **PAR.4**: Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.

- **NR.3.1:** Determine whether a group of up to 20 objects has an odd or even number. Write an equation to express an even number as a sum of two equal addends.
- **NR.3.2:** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends.
- NR.2.1: Add and subtract fluently within 20 using a variety of mental math strategies.
- **PAR.4.1:** Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction. Use intervals of 1s, 5s, 10s, 25s and 100s.
- **PAR.4.2:** Identify, describe, and create growing patterns and shrinking patterns involving addition and subtraction within 20.



Unit 9 - Culminating Capstone Unit - Using Mathematics to Answer Questions in My World (3-4 weeks)

The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)

Overarching Standards for Unit 9

- **NR.1:** Using the place value structure, explore the count sequences to represent, read, write, and compare numerical values to 1000 and describe basic place-value relationships and structures.
- **NR.2:** Apply multiple part-whole strategies, properties of operations and place value understanding to solve real-life, mathematical problems involving addition and subtraction within 1,000.
- **NR.3:** Work with equal groups to gain foundations for multiplication through real-life, mathematical problems.
- **PAR.4:** Identify, describe, extend, and create repeating patterns, growing patterns, and shrinking patterns.
- **GSR.7:** Draw and partition shapes and other objects with specific attributes and conduct observations of everyday items and structures to identify how shapes exist in the world.
- **MDR.5:** Estimate and measure the lengths of objects and distance to solve problems found in real-life using standard units of measurement, including inches, feet, and yards.
- MDR.6: Solve real-life problems involving time and money.

Standards for Student Mastery for Unit 9

ALL associated learning objectives.

2nd Grade Science

Course Description

The Second Grade Cherokee Teaching & Learning Standards for Science engage students in raising questions about the world around them and seeking answers by making observations and exploring phenomena. At the appropriate times, students will ask, "How do you know?" and will attempt to answer the question. They will use whole numbers as well as basic fractions (such as one-half and one-fourth) to identify and analyze scientific data. Second graders will find sums and differences of single digit numbers and then justify the answer. They will give rough estimates to problems and estimate lengths, weights, and time intervals. They will explain to others how to solve numerical problems related to a science activity. Second grade students push, pull, and manipulate things to see what will happen. They study the changing patterns of the moon and the sun and its effects on Earth. Second graders conduct simple investigations to understand that no matter how parts of an object are assembled their overall weight is the same as the total weight of the parts. They understand that heating and cooling cause changes in the properties of the materials. They observe changes caused by weather, plants, animals, and humans to the environment and study the life cycle of different organisms.

Science standards integrate the three dimensions of Science and Engineering Practices (SEPs), Crosscutting Concepts (CCCs), and Disciplinary Core Ideas (DCIs) to provide a comprehensive framework that emphasizes active engagement, interdisciplinary connections, and core scientific principles. Together, they show how science standards engage *students* in obtaining, evaluating, and communicating information.

Science and Engineering Practices	Crosscutting Concepts	Disciplinary Core Ideas
Asking Questions (Science) and Defining Problems (Engineering)	Patterns Engineering, Technology, and t	Engineering, Technology, and the
Developing and Using Models	Cause and Effect: Mechanism and Explanation	Application of Science (TLS)
Planning and Carrying Out Investigations	Scale, Proportion, and Quantity	Physical Science (P)
Analyzing and Interpreting Data	Systems and System Models	
Mathematics and Computational Thinking	E	Life Science (L)
Constructing Explanations (Science) and Designing Solutions (Engineering)	Flows, Cycles, and Conservation	
Engaging in Argument from Evidence	Structure and Function	
Obtaining, Evaluating, and Communicating Information	Stability and Change	Earth and Space Science (E)

Science and Engineering Practices are fundamental approaches that scientists and engineers use to investigate the natural world and solve practical problems. **Crosscutting Concepts** in science are overarching themes that bridge various disciplines, helping students and researchers see connections and deepen their understanding of the natural world. **Disciplinary Core Ideas** are fundamental concepts that students need to understand to develop a deep knowledge of science across various disciplines.

Teochino e

Thinking Like a Scientist

Thinking Like a Scientist standards represent scientific thinking skills that should be incorporated throughout the entire course.

Overarching Standard

TLS2: Enhance scientific thinking skills by formulating questions, making detailed observations, conducting structured experiments, and communicating findings clearly.

Supporting Standards for Student Mastery

- TLS2.a: Use and expand basic scientific vocabulary to include terms such as evidence, compare, contrast, and classify.
- TLS2.b: Make detailed observations and comparisons in the natural world.
- TLS2.c: Use a variety of tools to collect data and represent it through drawings, charts, and sentences.
- TLS2.d: Present findings and explanations to peers using appropriate scientific terms.

<u>Semester 1 (August – December)</u>

Unit 1: Structure and Properties of Matter (6 weeks)

In this unit, students will learn to recognize physical properties and changes in matter by observing and asking questions to describe and classify objects. Students will use cause and effect to explain reversible and irreversible changes in matter due to heating or cooling.

Overarching Standard for Unit 1

- P1: Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects.
- **P1.c**: Provide evidence from observations to construct an explanation that some changes in matter caused by heating or cooling can be reversed and some changes are irreversible.

(*Clarification statement:* Changes in matter could include heating or freezing of water, baking a cake, boiling an egg.)

• Identify the states of matter.

Supporting Standards for Student Mastery in Unit 1

P1.a: Ask questions to describe and classify different objects according to their physical properties.

(*<u>Clarification statement</u>: Examples of physical properties could include color, mass, length, texture, hardness, strength, absorbency, and flexibility.*)

P1.b: Construct an explanation for how structures made from small pieces (linking cubes, building blocks) can be disassembled and then rearranged to make new and different structures.

Unit 2: The Sun and Other Stars (6 weeks)

In this unit, students will investigate scale, proportion, and quantity to understand the relative sizes and brightness of stars. Students will recognize how stars' attributes can be compared by asking questions and constructing arguments to support the claim that the sun is medium in size and brightness.

Cochina a

Overarching Standard for Unit 2

- E1: Obtain, evaluate, and communicate information about stars having different sizes and brightness.
- **E1.b:** Construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is actually medium in size and brightness.

Supporting Standards for Student Mastery in Unit 2

E1.a: Ask questions to describe the physical attributes (size and brightness) of stars.

Unit 3: Patterns in Day and Night (6 weeks)

In this unit, students will investigate how the sun's position affects shadows throughout the day, changes in day and night lengths, and seasonal changes. Students will identify patterns in the moon's appearance over time and use cause and effect to understand the sun's position relative to a fixed object on Earth at various times.

Overarching Standard for Unit 3

- E2: Obtain, evaluate, and communicate information to develop an understanding of the patterns of the sun and the moon and the sun's effect on Earth.
- **E2.a:** Plan and carry out an investigation to determine the effect of the position of the sun in relation to a fixed object on Earth at various times of the day.
 - Explain how the position of the sun affects the time of day.
- **E2.d**: Use data from personal observations to describe, illustrate, and predict how the appearance of the moon changes over time in a pattern.

(*<u>Clarification statement</u>*: Students are not required to know the names of the phases of the moon or understand the tilt of the Earth. Names of moon phases are not taught until 4th Grade.)

Supporting Standards for Student Mastery in Unit 3

- **E2.b:** Design and build a structure that demonstrates how shadows change throughout the day based on the sun's position.
- E2.c: Represent data in tables and/or graphs of the length of the day and night to recognize the change in seasons.
 - Explain patterns of objects in the day and night sky.

Semester 2 (January – May)

Unit 4: Forces at Work: Push and Pull (6 weeks)

In this unit, students will conduct investigations, design, and engineer devices to demonstrate the effects of pushing and pulling on an object's motion. Cause and effect are emphasized to help students understand how forces impact motion and how to design a device that manipulates an object's speed or direction.

Overarching Standard for Unit 4

- P2: Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).
- P2.b: Design a device to change the speed or direction of an object.
 - Understand the difference between speed and direction.

Supporting Standards for Student Mastery in Unit 4

- **P2.a:** Plan and carry out an investigation to demonstrate how pushing and pulling on an object affects the motion of the object.
- **P2.c:** Record and analyze data to decide if a design solution works as intended to change the speed or direction of an object with a force (a push or a pull).

Unit 5: Life Cycles (6 weeks)

In this unit, students will investigate the life cycles of various living organisms by asking questions, conducting experiments, developing models, and explaining the sequences and stages. Students will explore systems to understand the interconnected roles organisms play in their environments and illustrate their life cycles through models.

Overarching Standard for Unit 5

- L1: Obtain, evaluate, and communicate information about the life cycles of different living organisms.
- **L1.d:** Develop models to illustrate the unique and diverse life cycles of organisms other than humans.

Supporting Standards for Student Mastery in Unit 5

- L1.a: Ask questions to determine the sequence of the life cycle of common animals in your area: a mammal such as a cat, dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.
- **L1.b:** Plan and carry out an investigation of the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time.
- **L1.c:** Construct an explanation of an animal's role in dispersing seeds or in the pollination of plants.



Unit 6: Environmental Changes (6 weeks)

In this unit, students will observe their school or home grounds to identify examples of how weather, plants, animals, and humans cause changes to the environment. Students will focus on understanding the relationships between environmental factors and changes observed.

Free Chine &

Overarching Standard for Unit 6

E3: Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.

(Clarification statement: Changes should be easily observable and could be seen on school grounds or at home.)

E3.b: Construct an explanation of the causes and effects of a change to the environment in your community

Supporting Standards for Student Mastery in Unit 6

E3.a: Ask questions to obtain information about major changes to the environment in your community.



Georgia My State

In second grade, the various social studies strands become interwoven with the historical strand. The history strand focuses on important historical figures in Georgia and the Muscogee (Creek) and Cherokee cultures in Georgia. The geography strand emphasizes the geography of Georgia and relates to the historical study. In addition to the positive character traits of the individuals and groups in the historical strand, the basic concept of government is also introduced. Basic economics concepts continue to be introduced.

Social Studies standards integrate the three dimensions of **Information Processing Skills (ISPs)**, **Map and Globe Skills (MGSs)**, and **Disciplinary Domains (DDs)** to provide a comprehensive framework that emphasizes active engagement, interdisciplinary connections, and K-12 Connecting Themes and Enduring Understandings. Together, they show how social studies standards engage *students* in obtaining, evaluating, and communicating information.

Information Processing Skills	Map and Globe Skills	Disciplinary Domains
IPS. 1 : Compare similarities and differences (M)	MGS.1: Introduce the use of a compass rose to successfully identify cardinal directions (north, south, east, west). (A)	Historical Understandings (H)
IPS. 2: Organize items chronologically (D)	MGS.2: Introduce the use of intermediate directions when describing location (northeast,	
IPS.3 : Identify issues and/or problems and alternative solutions (D)	southeast, northwest, southwest). (M)	
IPS.4: Distinguish between facts and opinion.	MGS.3: Use a letter/number grid system to	
(D)	determine location. (I)	Geographic Understandings (G)
IPS.5: Identify main idea, detail, sequence of	MGS.4: Compare and contrast the categories	
events, and cause and effect in a social studies	of natural, cultural, and political features on a	
context. (D)	map. (I)	



 IPS.6: Identify and use primary and secondary sources. (D) IPS.7: Interpret timelines, charts, and tables. (D) 	MGS.6: Use a map key/legend to acquire information from historical, physical, political, resource, product, and economic maps. (I)	Government/Civic Understandings (CG)
 IPS.8: Identify social studies reference resources to use for a specific purpose. (I) IPS.9: Construct charts and tables. (I) IPS.10: Analyze artifacts. (I) 	MGS.7: Use a map to explain the impact of geography on historical and current events. (D)	Economic Understandings (E)

The goal of the **Information Processing Skills (IPS)** is for a student to be able to locate, analyze, and synthesize information related to social studies topics and apply this information to solve problems and/or make decisions. Students are working to master these skills over multiple grade levels. **Map and Globe Skills (MGS)** are the expected skills that a student should successfully use to retrieve social studies information from maps. The expected level of mastery for IPS and MGS are indicated by one of the following letters in parentheses: Introduced (I), Developing (D), Mastery (M), and Application (A). **Disciplinary Domains** are the four areas of fundamental concepts that students need to understand to develop a deep knowledge of social studies.



Semester 1 (August – December)

- Unit 1 Government (5 weeks)
- **CG.1:** Define the concept of government and the need for rules and laws.
- **CG.2:** Identify the following elected officials of the executive branch and where they work:
 - **CG.2.a:** President (leader of our nation) and Washington, D.C. White House
 - CG.2.b: Governor (leader of our state) and Atlanta, GA State Capitol Building
 - **CG.2.c:** Mayor (leader of a city) and city hall
- **E.2:** Identify some ways in which goods and services are allocated (such as: price, majority rule, contests, force, sharing, lottery, authority, first-come-first-served, and personal characteristics).

Unit 2 – Muscogee (Creek) & Cherokee (7 weeks)

- **G.2**: Describe the cultural and geographic systems associated with historical figures and Georgia's Muscogee (Creek) and Cherokee.
 - **H1.b:** Describe the lives and contributions of historical figures in Georgia history Sequoyah (development of a Cherokee alphabet).
 - **CG.3:** Give examples of how the historical figure (Sequoyah) demonstrated positive citizenship traits such as: honesty, dependability, trustworthiness, honor, civility, good sportsmanship, patience, and compassion.
 - **G2.a:** Identify specific locations significant to the life and times of Sequoyah, and the Muscogee (Creek) and Cherokee, on a political or physical map.
 - MGS.2: Use intermediate directions when describing location (northeast, southeast, northwest, southwest).
 - **MGS.3:** Use a letter/number grid system to determine location.
 - MGS.4: Compare and contrast the categories of natural, cultural, and political features on a map.
 - MGS.7: Use a map to explain the impact of geography on historical and current events.



- **G2.b:** Describe how each historic figure and the Muscogee (Creek) and Cherokee adapted to and were influenced by their environments.
- **G2.d:** Describe the regions in Georgia where the Muscogee (Creek) and Cherokee lived and how the people used their local resources.
- **H2.a:** Compare and contrast the Georgia Muscogee (Creek) and Cherokee cultures of the past to those of Georgians today in terms of tools, clothing, homes, ways of making a living, and accomplishments.
- **E.1:** Explain that because of scarcity, people must make choices that result in opportunity costs.

Unit 3 – Georgia Regions – (6 weeks)

- **G.1:** Locate and compare major topographical features of Georgia and describe how these features define Georgia's surface.
 - **G.1.a:** Locate and compare the geographic regions of Georgia: Blue Ridge, Piedmont, Coastal Plain, Ridge and Valley, and Appalachian Plateau.
 - **G.1.b** Locate on a physical map the major rivers: Savannah, Flint, and Chattahoochee.
 - MGS.1: Use a compass rose to successfully identify cardinal directions (north, south, east, west).
 - **MGS.2:** Use intermediate directions when describing location (northeast, southeast, northwest, southwest).
 - **MGS.3:** Use a letter/number grid system to determine location.
 - **MGS.6:** Use a map key/legend to acquire information from historical, physical, political, resource, product, and economic maps.

2nd Grade Social Studies



Semester 2 (January – May)

- Unit 4 Famous Georgians Founding of Georgia (5 weeks)
- **H1:** Describe the lives and contributions of historical figures in Georgia history.
- H1.a: James Oglethorpe, Tomochichi, and Mary Musgrove (founding of Georgia)
- H1.b: Sequoyah (development of a Cherokee alphabet)
 - **CG.3:** Give examples of how these historical figures demonstrate positive citizenship traits such as: honesty, dependability, trustworthiness, honor, civility, good sportsmanship, patience, and compassion.
 - **G2.c:** Describe how the region in which these historic figures lived affected their lives and compare these regions to the region in which students live.
 - MGS.2: Use intermediate directions when describing location (northeast, southeast, northwest, southwest).
 - **MGS.3:** Use a letter/number grid system to determine location.
 - MGS.4: Compare and contrast the categories of natural, cultural, and political features on a map.
 - MGS.7: Use a map to explain the impact of geography on historical and current events.

Unit 5 - Famous Georgians - Leadership & Civil Rights - Part 1 (4 weeks)

- H1: Describe the lives and contributions of historical figures in Georgia history.
- H1.c: Jackie Robinson (sportsmanship and civil rights)
- H1.d: Martin Luther King, Jr. (civil rights)
 - **CG.3:** Give examples of how these historical figures demonstrate positive citizenship traits such as: honesty, dependability, trustworthiness, honor, civility, good sportsmanship, patience, and compassion.



- **G2.c:** Describe how the region in which these historic figures lived affected their lives and compare these regions to the region in which students live.
- MGS.2: Use intermediate directions when describing location (northeast, southeast, northwest, southwest).
- **MGS.3:** Use a letter/number grid system to determine location.
- **MGS.4:** Compare and contrast the categories of natural, cultural, and political features on a map.
- MGS.7: Use a map to explain the impact of geography on historical and current events.

Unit 6 – Economics (4 weeks)

- **E.3:** Explain that people usually use money to obtain the goods and services they want and explain how money makes trade easier than barter.
 - **E.4:** Describe the costs and benefits of personal saving and spending choices.

Unit 7 - Famous Georgians – Leadership & Civil Rights – Part 2 (5 weeks)

- **H1:** Describe the lives and contributions of historical figures in Georgia history.
- H1.e: Juliette Gordon Low (Girl Scouts and leadership)
- H1.f: Jimmy Carter (leadership and human rights)
 - **CG.3:** Give examples of how these historical figures demonstrate positive citizenship traits such as: honesty, dependability, trustworthiness, honor, civility, good sportsmanship, patience, and compassion.
 - **G2.c:** Describe how the region in which these historic figures lived affected their lives and compare these regions to the region in which students live.



- MGS.2: Use intermediate directions when describing location (northeast, southeast, northwest, southwest).
- **MGS.3:** Use a letter/number grid system to determine location.
- **MGS.4:** Compare and contrast the categories of natural, cultural, and political features on a map.
- **MGS.7:** Use a map to explain the impact of geography on historical and current events.