Georgia Alternate Assessment (GAA) Standards

2016–2017

Kindergarten Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Language (L)	ELAGSEK.L.1		Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
			a.	Print many upper- and lowercase letters.
			c.	Form regular plural nouns orally by adding /s/ or /es/ *(e.g., dog, dogs; wish, wishes)* when speaking.
			f.	Produce and expand complete sentences in shared language activities.
		ELAGSEK.L.2		Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
			a.	Capitalize the first word in a sentence and the pronoun *I*.
			b.	Recognize and name end punctuation.
			d.	Spell simple words phonetically, drawing on knowledge of sound-letter relationships.
		ELAGSEK.L.4		With guidance and support, determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.
			a.	Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* as a bird and learning the verb *to duck*).
		ELAGSEK.L.5		With guidance and support from adults, explore word relationships and nuances in word meanings.
			c.	Identify real-life connections between words and their use (e.g., note places at school that are *colorful*).
		ELAGSEK.L.6		Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
	Reading Foundational (RF)	ELAGSEK.RF.1		Demonstrate understanding of the organization and basic features of print.
			d.	Recognize and name all upper- and lowercase letters of the alphabet.
		ELAGSEK.RF.2		Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
			a.	Recognize and produce rhyming words.
	Reading Informational (RI)	ELAGSEK.RI.1		With prompting and support, ask and answer questions about key details in a text.
		ELAGSEK.RI.3		With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
		ELAGSEK.RI.4		With prompting and support, ask and answer questions about unknown words in a text.
		ELAGSEK.RI.7		With prompting and support, describe the relationship between illustrations and the text (how the illustrations support the text).
		ELAGSEK.RI.10		Actively engage in group reading of informational text with purpose and understanding.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Reading Literary (RL)	ELAGSEK.RL.1		With prompting and support, ask and answer questions about key details in a text.
		ELAGSEK.RL.2		With prompting and support, retell familiar stories, including key details.
		ELAGSEK.RL.3		With prompting and support, identify characters, settings, and major events in a story.
		ELAGSEK.RL.4		With prompting and support, ask and answer questions about unknown words in a text.
		ELAGSEK.RL.5		Recognize common types of texts (e.g., storybooks, poems).
		ELAGSEK.RL.7		With prompting and support, describe the relationship between illustrations and the story (how illustrations support the text).
		ELAGSEK.RL.9		With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.
		ELAGSEK.RL.10		Actively engage in group reading activities with purpose and understanding.
	Writing (W)	ELAGSEK.W.1		Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are "writing" about and state an opinion or preference about the topic or book (e.g., *My favorite book is…*).
		ELAGSEK.W.2		Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
		ELAGSEK.W.3		Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened.
		ELAGSEK.W.5		With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.
		ELAGSEK.W.6		With guidance and support from adults, use a variety of tools to produce and publish writing, including digital tools in collaboration with peers.
		ELAGSEK.W.8		With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
	Speaking and Listening (SL)	ELAGSEK.SL.1		Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
			a.	Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).
			b.	Continue a conversation through multiple exchanges.
		ELAGSEK.SL.2		Confirm understanding of written texts read aloud or information presented orally or through media by asking and answering questions about key details and requesting clarification if something is not understood.
		ELAGSEK.SL.3		Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		ELAGSEK.SL.4		Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.
		ELAGSEK.SL.5		Add drawings or other visual displays to descriptions as desired to provide additional detail.
		ELAGSEK.SL.6		Speak audibly and express thoughts, feelings, and ideas clearly.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Counting and Cardinality (GSE)			**Know number names and the count sequence.**
		MGSEK.CC.3		Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
				Count to tell the number of objects.
		MGSEK.CC.5		Count to answer "how many?" questions.
			a.	Count to answer "how many?" questions about as many as 20 things arranged in a variety of ways (a line, a rectangular array, or a circle), or as many as 10 things in a scattered configuration.
			b.	Given a number from 1-20, count out that many objects.
			c.	Identify and be able to count pennies within 20. (Use pennies as manipulatives in multiple mathematical contexts.)
				Compare numbers.
		MGSEK.CC.6		Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
	Operations and Algebraic Thinking (OA)			**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
		MGSEK.OA.1		Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
		MGSEK.OA.2		Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
		MGSEK.OA.3		Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation. (drawings need not include an equation)
		MGSEK.OA.4		For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
	Measurement and Data (MD)			**Describe and compare measurable attributes.**
		MGSEK.MD.2		Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*
				Classify objects and count the number of objects in each category.
		MGSEK.MD.3		Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Geometry (G)**			**Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**
		MGSEK.G.1		Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of, behind*, and *next to*.
		MGSEK.G.2		Correctly name shapes regardless of their orientations or overall size.
		MGSEK.G.3		Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
				Analyze, compare, create and compose shapes.
		MGSEK.G.5		Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
		MGSEK.G.6		Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

Grade 3 Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Language (L)**	ELAGSE3.L.4		Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on *grade 3 reading and content*, choosing flexibly from a range of strategies.
			a.	Use sentence-level context as a clue to the meaning of a word or phrase.
			b.	Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*).
			c.	Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company, companion*).
			d.	Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.
		ELAGSE3.L.5		With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.
			a.	Distinguish the literal and non-literal meanings of words and phrases in context (e.g., *take steps*).
			b.	Identify real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*).
			c.	Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*).
		ELAGSE3.L.6		Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific vocabulary, including words and phrases that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*).
	Reading Foundational (RF)	ELAGSE3.RF.3		Know and apply grade-level phonics and word analysis skills in decoding words.
			a.	Identify and know the meaning of the most common prefixes and suffixes.
		ELAGSE3.RF.4		Read with sufficient accuracy and fluency to support comprehension.
			a.	Read on-level text with purpose and understanding.
			b.	Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
			c.	Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Reading Informational (RI)**		ELAGSE3.RI.1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
			ELAGSE3.RI.2	Determine the main idea of a text; recount the key details and explain how they support the main idea.
			ELAGSE3.RI.3	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
			ELAGSE3.RI.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
			ELAGSE3.RI.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic quickly and efficiently.
			ELAGSE3.RI.6	Distinguish their own point of view from that of the author of a text.
			ELAGSE3.RI.7	Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
			ELAGSE3.RI.8	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).
	Reading Literary (RL)		ELAGSE3.RL.1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
			ELAGSE3.RL.2	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
			ELAGSE3.RL.3	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
			ELAGSE3.RL.4	Determine the meaning of words and phrases both literal and non-literal language as they are used in the text.
			ELAGSE3.RL.5	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
			ELAGSE3.RL.6	Distinguish their own point of view from that of the narrator or those of the characters.
			ELAGSE3.RL.7	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
			ELAGSE3.RL.9	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Writing (W)	ELAGSE3.W.1		Write opinion pieces on topics or texts, supporting a point of view with reasons.
			a.	Introduce the topic or book they are writing about, state an opinion, and create an organizational structure that lists reasons.
			b.	Provide reasons that support the opinion.
			c.	Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
			d.	Provide a concluding statement or section.
		ELAGSE3.W.2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
			a.	Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
			b.	Develop the topic with facts, definitions, and details.
			c.	Use linking words and phrases (e.g., *also*, *another*, *and*, *more*, *but*) to connect ideas within categories of information.
			d.	Provide a concluding statement or section.
		ELAGSE3.W.3		Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
			a.	Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
			b.	Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
			c.	Use temporal words and phrases to signal event order.
			d.	Provide a sense of closure.
		ELAGSE3.W.5		With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
		ELAGSE3.W.7		Conduct short research projects that build knowledge about a topic.
		ELAGSE3.W.8		Recall information from experience or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Speaking and Listening (SL)**	ELAGSE3.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.
			b.	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).
		ELAGSE3.SL.2		Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
		ELAGSE3.SL.4		Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Operations and Algebraic Thinking (OA)			**Represent and solve problems involving multiplication and division.**
		MGSE3.OA.1		Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*
		MGSE3.OA.2		Interpret whole number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares (How many in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each (How many groups can you make?). *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*
		MGSE3.OA.3		Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities,‡ e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ‡See Glossary: *Multiplication and Division Within 100.*
		MGSE3.OA.4		Determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division. *For example, determine the unknown number that makes the equation true in each of the equations, 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.*
				Understand properties of multiplication and the relationship between multiplication and division.
		MGSE3.OA.5		Apply properties of operations as strategies to multiply and divide. *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*
		MGSE3.OA.6		Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*
				Multiply and divide within 100.
		MGSE3.OA.7		Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
				Solve problems involving the four operations, and identify and explain patterns in arithmetic.
		MGSE3.OA.8		Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
		MGSE3.OA.9		Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.‡ *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.* ‡ See Glossary, Table 3.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Number and Operations in Base Ten (NBT)**			**Use place value understanding and properties of operations to perform multi-digit arithmetic.**
		MGSE3.NBT.1		Use place value understanding to round whole numbers to the nearest 10 or 100.
		MGSE3.NBT.2		Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
		MGSE3.NBT.3		Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
	Number and Operations– Fractions (NF)			**Develop understanding of fractions as numbers.**
		MGSE3.NF.1		Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$. *For example,* $\frac{3}{4}$ *means there are three* $\frac{1}{4}$ *parts, so* $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$.
		MGSE3.NF.2		Understand a fraction as a number on the number line; represent fractions on a number line diagram.
			a.	Represent a fraction $\frac{1}{b}$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$. Recognize that a unit fraction $\frac{1}{b}$ is located $\frac{1}{b}$ whole unit from 0 on the number line.
			b.	Represent a non-unit fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths of $\frac{1}{b}$ (unit fractions) from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the non-unit fraction $\frac{a}{b}$ on the number line.
		MGSE3.NF.3		Explain equivalence of fractions through reasoning with visual fraction models. Compare fractions by reasoning about their size.
			a.	Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
			b.	Recognize and generate simple equivalent fractions with denominators of 2, 3, 4, 6, and 8, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
			c.	Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form* $3 = \frac{6}{2}$ *(3 wholes is equal to six halves); recognize that* $\frac{3}{1} = 3$; *locate* $\frac{1}{4}$ *and 1 at the same point of a number line diagram.*
			d.	Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Measurement and Data (MD)**			**Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**
		MGSE3.MD.1		Tell and write time to the nearest minute and measure elapsed time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram, drawing a pictorial representation of a clock face, etc.
				Represent and interpret data.
		MGSE3.MD.3		Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.*
		MGSE3.MD.4		Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.
				Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
		MGSE3.MD.5		Recognize area as an attribute of plane figures and understand concepts of area measurement.
			a.	A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
			b.	A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of *n* square units.
		MGSE3.MD.6		Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
		MGSE3.MD.7		Relate area to the operations of multiplication and addition.
			a.	Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
			b.	Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
			c.	Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
				Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
		MGSE3.MD.8		Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Geometry (G)		**Reason with shapes and their attributes.**	
		MGSE3.G.1		Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
		MGSE3.G.2		Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.*

Grade 4 Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Language (L)	ELAGSE4.L.3		Use knowledge of language and its conventions when writing, speaking, reading, or listening.
			a.	Choose words and phrases to convey ideas precisely.
			c.	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).
		ELAGSE4.L.4		Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 4 reading and content*, choosing flexibly from a range of strategies.
			a.	Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
			c.	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
		ELAGSE4.L.5		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
			a.	Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
			b.	Recognize and explain the meaning of common idioms, adages, and proverbs.
			c.	Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
		ELAGSE4.L.6		Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and words and phrases basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).
	Reading Foundational (RF)	ELAGSE4.RF.3		Know and apply grade-level phonics and word analysis skills in decoding words.
			a.	Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.
		ELAGSE4.RF.4		Read with sufficient accuracy and fluency to support comprehension.
			a.	Read on-level text with purpose and understanding.
			b.	Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
			c.	Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Reading Informational (RI)		ELAGSE4.RI.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
		ELAGSE4.RI.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.
		ELAGSE4.RI.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
		ELAGSE4.RI.4	Determine the meaning of general academic language and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
		ELAGSE4.RI.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
		ELAGSE4.RI.6	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
		ELAGSE4.RI.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
		ELAGSE4.RI.8	Explain how an author uses reasons and evidence to support particular points in a text.
		ELAGSE4.RI.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
	Reading Literary (RL)	ELAGSE4.RL.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
		ELAGSE4.RL.2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.
		ELAGSE4.RL.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
		ELAGSE4.RL.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).
		ELAGSE4.RL.5	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
		ELAGSE4.RL.6	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.
		ELAGSE4.RL.7	Make connections between the text of a story or drama and a visual or oral presentation of the text identifying similarities and differences.
		ELAGSE4.RL.9	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE4.W.1		Write opinion pieces on topics or texts, supporting a point of view with reasons.
			a.	Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.
			b.	Provide reasons that are supported by facts and details.
			c.	Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
			d.	Provide a concluding statement or section related to the opinion presented.
		ELAGSE4.W.2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
			a.	Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
			b.	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
			c.	Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*).
			d.	Use precise language and domain-specific vocabulary to inform about or explain the topic.
			e.	Provide a concluding statement or section related to the information or explanation presented.
		ELAGSE4.W.3		Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
			a.	Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
			b.	Use dialogue and description to develop experiences and events or show the responses of characters to situations.
			c.	Use a variety of transitional words and phrases to manage the sequence of events.
			d.	Use concrete words and phrases and sensory details to convey experiences and events precisely.
			e.	Provide a conclusion that follows from the narrated experiences or events.
		ELAGSE4.W.5		With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
		ELAGSE4.W.7		Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Writing (W)	ELAGSE4.W.8		Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
		ELAGSE4.W.9		Draw evidence from literary or informational texts to support analysis, reflection, and research.
			a.	Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").
			b.	Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").
	Speaking and Listening (SL)	ELAGSE4.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.
			a.	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
			b.	Follow agreed-upon rules for discussions and carry out assigned roles.
			c.	Pose and respond to specific questions to clarify or follow up on information and make comments that contribute to the discussion and link to the remarks of others.
			d.	Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
		ELAGSE4.SL.2		Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
		ELAGSE4.SL.3		Identify the reasons and evidence a speaker provides to support particular points.
		ELAGSE4.SL.4		Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
		ELAGSE4.SL.5		Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
		ELAGSE4.SL.6		Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Operations and Algebraic Thinking (OA)**			**Use the four operations with whole numbers to solve problems.**
		MGSE4.OA.2		Multiply or divide to solve word problems involving multiplicative comparison. Use drawings and equations with a symbol or letter for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
		MGSE4.OA.3		Solve multistep word problems with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a symbol or letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
				Generate and analyze patterns.
		MGSE4.OA.5		Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. Explain informally why the pattern will continue to develop in this way. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers.*
	Number and Operations in Base Ten (NBT)			**Generalize place value understanding for multi-digit whole numbers.**
		MGSE4.NBT.1		Recognize that in a multi-digit whole number, a digit in any one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*
		MGSE4.NBT.2		Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
		MGSE4.NBT.3		Use place value understanding to round multi-digit whole numbers to any place.
				Use place value understanding and properties of operations to perform multi-digit arithmetic.
		MGSE4.NBT.5		Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
		MGSE4.NBT.6		Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Number and Operations–Fractions (NF)**			**Extend understanding of fraction equivalence and ordering.**
		MGSE4.NF.1		Explain why two or more fractions are equivalent $\frac{a}{b} = \frac{n \times a}{n \times b}$ ex: $\frac{1}{4} = \frac{3 \times 1}{3 \times 4}$ by using usual fraction models. Focus attention on how the number and size of the parts differ even though the fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
		MGSE4.NF.2		Compare two fractions with different numerators and different denominators, e.g., by using visual fraction models, by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions.
				Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
		MGSE4.NF.3		Understand a fraction $\frac{a}{b}$ with a numerator > 1 as a sum of unit fractions $\frac{1}{b}$.
			a.	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
			b.	Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples:* $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.
			c.	Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
			d.	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
		MGSE4.NF.4		Apply and extend previous understandings of multiplication to multiply a fraction by a whole number e.g., by using a visual such as a number line or area model.
			a.	Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. *For example, use a visual fraction model to represent $\frac{5}{4}$ as the product $5 \times \left(\frac{1}{4}\right)$, recording the conclusion by the equation $\frac{5}{4} = 5 \times \left(\frac{1}{4}\right)$.*
			b.	Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express $3 \times \left(\frac{2}{5}\right)$ as $6 \times \left(\frac{1}{5}\right)$, recognizing this product as $\frac{6}{5}$. (In general, $n \times \left(\frac{a}{b}\right) = \frac{n \times a}{b}$.)*
			c.	Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat $\frac{3}{8}$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Number and Operations– Fractions (NF)**			**Understand decimal notation for fractions, and compare decimal fractions.**
		MGSE4.NF.5		Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express* $\frac{3}{10}$ *as* $\frac{30}{100}$ *, and add* $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$ *.*
		MGSE4.NF.6		Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as* $\frac{62}{100}$ *; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*
		MGSE4.NF.7		Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.
	Measurement and Data (MD)			**Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.**
		MGSE4.MD.1		Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb., oz.; l, ml; hr, min, sec.
			a.	Understand the relationship between gallons, cups, quarts, and pints.
			b.	Express larger units in terms of smaller units within the same measurement system.
			c.	Record measurement equivalents in a two column table.
		MGSE4.MD.2		Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
				Represent and interpret data.
		MGSE4.MD.4		Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions with common denominators by using information presented in line plots. *For example, from a line plot, find and interpret the difference in length between the longest and shortest specimens in an insect collection.*
				Geometric measurement: understand concepts of angle and measure angles.
		MGSE4.MD.5		Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.
			a.	An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a "one-degree angle," and can be used to measure angles.
			b.	An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
		MGSE4.MD.6		Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Measurement and Data (MD)**	MGSE4.MD.7		Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol or letter for the unknown angle measure.
		MGSE4.MD.8		Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
	Geometry (G)	**Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**		
		MGSE4.G.1		Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
		MGSE4.G.2		Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Grade 5 Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Language (L)	ELAGSE5.L.4		Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies.
			a.	Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
			b.	Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*).
			c.	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
		ELAGSE5.L.5		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
			a.	Interpret figurative language, including similes and metaphors, in context.
			b.	Recognize and explain the meaning of common idioms, adages, and proverbs.
			c.	Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
		ELAGSE5.L.6		Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).
	Reading Informational (RI)	ELAGSE5.RI.1		Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
		ELAGSE5.RI.2		Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
		ELAGSE5.RI.3		Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
		ELAGSE5.RI.4		Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
		ELAGSE5.RI.5		Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
		ELAGSE5.RI.6		Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
		ELAGSE5.RI.7		Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Reading Literary (RL)	ELAGSE5.RL.1		Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
		ELAGSE5.RL.2		Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
		ELAGSE5.RL.3		Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
		ELAGSE5.RL.4		Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
		ELAGSE5.RL.5		Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
		ELAGSE5.RL.6		Describe how a narrator's or speaker's point of view influences how events are described.
		ELAGSE5.RL.7		Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
	Writing (W)	ELAGSE5.W.1		Write opinion pieces on topics or texts, supporting a point of view with reasons.
			a.	Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
			b.	Provide logically ordered reasons that are supported by facts and details.
			c.	Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*).
			d.	Provide a concluding statement or section related to the opinion presented.
		ELAGSE5.W.2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
			a.	Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
			b.	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
			c.	Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast, especially*).
			d.	Use precise language and domain-specific vocabulary to inform about or explain the topic.
			e.	Provide a concluding statement or section related to the information or explanation presented.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE5.W.3		Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
			a.	Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
			b.	Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
			c.	Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
			d.	Use concrete words and phrases and sensory details to convey experiences and events precisely.
			e.	Provide a conclusion that follows from the narrated experiences or events.
		ELAGSE5.W.5		With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
		ELAGSE5.W.7		Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
		ELAGSE5.W.8		Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
		ELAGSE5.W.9		Draw evidence from literary or informational texts to support analysis, reflection, and research.
			a.	Apply grade 5 Reading Standards to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").
			b.	Apply *grade 5 Reading Standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point[s]").

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Speaking and Listening (SL)**	ELAGSE5.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts,* building on others' ideas and expressing their own clearly.
			a.	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
			b.	Follow agreed-upon rules for discussions and carry out assigned roles.
			c.	Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
			d.	Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
		ELAGSE5.SL.2		Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
		ELAGSE5.SL.3		Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
		ELAGSE5.SL.4		Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
		ELAGSE5.SL.5		Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
		ELAGSE5.SL.6		Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Operations and Algebraic Thinking (OA)**			**Analyze patterns and relationships.**
		MGSE5.OA.3		Generate two numerical patterns using a given rule. Identify apparent relationships between corresponding terms by completing a function table or input/output table. Using the terms created form and graph ordered pairs on a coordinate plane.
	Number and Operations in Base Ten (NBT)			**Understand the place value system.**
		MGSE5.NBT.1		Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
		MGSE5.NBT.2		Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
		MGSE5.NBT.3		Read, write, and compare decimals to thousandths.
			a.	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times \left(\frac{1}{10}\right) + 9 \times \left(\frac{1}{100}\right) + 2 \times \left(\frac{1}{1000}\right)$.
			b.	Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
				Perform operations with multi-digit whole numbers and with decimals to hundredths.
		MGSE5.NBT.7		Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Number and Operations–Fractions (NF)			**Use equivalent fractions as a strategy to add and subtract fractions.**
		MGSE5.NF.1		Add and subtract fractions and mixed numbers with unlike denominators by finding a common denominator and equivalent fractions to produce like denominators.
		MGSE5.NF.2		Solve word problems involving addition and subtraction of fractions, including cases of unlike denominators (e.g., by using visual fraction models or equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $\frac{2}{5}+\frac{1}{2}=\frac{3}{7}$, by observing that $\frac{3}{7}<\frac{1}{2}$.
				Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
		MGSE5.NF.3		Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b}$ = $a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *Example: $\frac{3}{5}$ can be interpreted as "3 divided by 5 and as 3 shared by 5".*
		MGSE5.NF.4		Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
			a.	Apply and use understanding of multiplication to multiply a fraction or whole number by a fraction. *Examples: $\frac{a}{b}\times q$ as $\frac{a}{b}\times\frac{q}{1}$ and $\frac{a}{b}\times\frac{c}{d}=\frac{ac}{bd}$*
			b.	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths.
		MGSE5.NF.5		Interpret multiplication as scaling (resizing), by:
			a.	Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. *Example: 4 x 10 is twice as large as 2 x 10.*
			b.	Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b}=\frac{n\times a}{n\times b}$ to the effect of multiplying $\frac{a}{b}$ by 1.
		MGSE5.NF.6		Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Number and Operations– Fractions (NF)	MGSE5.NF.7		Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
			a.	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $\left(\frac{1}{3}\right) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $\left(\frac{1}{3}\right) \div 4 = \frac{1}{12}$ because $\left(\frac{1}{12}\right) \times 4 = \frac{1}{3}$.
			b.	Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div \left(\frac{1}{5}\right)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div \left(\frac{1}{5}\right) = 20$ because $20 \times \left(\frac{1}{5}\right) = 4$.
			c.	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual *fraction* models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{1}{3}$ -cup servings are in 2 cups of raisins?

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Measurement and Data (MD)**			**Convert like measurement units within a given measurement system.**
		MGSE5.MD.1		Convert among different-sized standard measurement units (mass, weight, length, time, etc.) within a given measurement system (customary and metric) (e.g., convert 5cm to 0.05m), and use these conversions in solving multi-step, real world problems.
				Represent and interpret data.
		MGSE5.MD.2		Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*
				Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
		MGSE5.MD.3		Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
			a.	A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
			b.	A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.
		MGSE5.MD.4		Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
		MGSE5.MD.5		Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
			a.	Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
			b.	Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.
			c.	Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Geometry (G)**		**Graph points on the coordinate plane to solve real-world and mathematical problems.**	
		MGSE5.G.1		Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).
		MGSE5.G.2		Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
			Classify two-dimensional figures into categories based on their properties.	
		MGSE5.G.3		Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*
		MGSE5.G.4		Classify two-dimensional figures in a hierarchy based on properties (*polygons, triangles,* and *quadrilaterals*).

Content Area	Science Strand	Standard	Description	Element	Characteristics of Science
Science	**Earth Science**	S5E1	Students will identify surface features of the Earth caused by constructive and destructive processes.	a. Identify surface features caused by constructive processes. • Deposition (Deltas, sand dunes, etc.) • Earthquakes • Volcanoes • Faults	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records observations – Offers and considers reasoning – Quantifies data – Measures and estimates – Uses scientific tools – Assembles, describes, takes apart, and reassembles – Identifies parts and makes models – Describes changes – Compares physical attributes – Draws and sketches – Questions and seeks to find answers – Researches for scientific information – Replicates investigations – Works safely
				b. Identify and find examples of surface features caused by destructive processes. • Erosion (water−rivers and oceans, wind) • Weathering • Impact of organisms • Earthquake • Volcano	
				c. Relate the role of technology and human intervention in the control of constructive and destructive processes. Examples include, but are not limited to • Seismological studies, • Flood control (dams, levees, storm drain management, etc.) • Beach reclamation (Georgia coastal islands)	
	Physical Science	S5P1	Students will verify that an object is the sum of its parts.	a. Demonstrate that the mass of an object is equal to the sum of its parts by manipulating and measuring different objects made of various parts.	
				b. Investigate how common items have parts that are too small to be seen without magnification.	
		S5P2	Students will explain the difference between a physical change and a chemical change.	a. Investigate physical changes by separating mixtures and manipulating (cutting, tearing, folding) paper to demonstrate examples of physical change.	
				b. Recognize that the changes in state of water (water vapor/ steam, liquid, ice) are due to temperature differences and are examples of physical change.	
				c. Investigate the properties of a substance before, during, and after a chemical reaction to find evidence of change.	

Content Area	Science Strand	Standard	Description	Element	Characteristics of Science
Science	**Physical Science**	S5P3	Students will investigate electricity, magnetism, and their relationship.	a. Investigate static electricity. b. Determine the necessary components for completing an electric circuit. c. Investigate common materials to determine if they are insulators or conductors of electricity. d. Compare a bar magnet to an electromagnet.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records observations – Offers and considers reasoning – Quantifies data – Measures and estimates – Uses scientific tools – Assembles, describes, takes apart, and reassembles – Identifies parts and makes models – Describes changes – Compares physical attributes – Draws and sketches – Questions and seeks to find answers – Researches for scientific information – Replicates investigations – Works safely
	Life Science	S5L1	Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.	a. Demonstrate how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal). b. Demonstrate how plants are sorted into groups.	
		S5L2	Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.	a. Compare and contrast the characteristics of learned behaviors and of inherited traits. b. Discuss what a gene is and the role genes play in the transfer of traits. Teacher's note: Be sensitive to this topic since biological parents may be unavailable.	
		S5L3	Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).	a. Use magnifiers such as microscopes or hand lenses to observe cells and their structure. b. Identify parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus) and determine the function of the parts. c. Explain how cells in multi-celled organisms are similar and different in structure and function to single-celled organisms.	
		S5L4	Students will relate how microorganisms benefit or harm larger organisms.	a. Identify beneficial microorganisms and explain why they are beneficial. b. Identify harmful microorganisms and explain why they are harmful.	

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Historical Understandings**	SS5H1	The student will explain the causes, major events, and consequences of the Civil War.	a. Identify *Uncle Tom's Cabin* and John Brown's raid on Harper's Ferry, and explain how each of these events was related to the Civil War.
				b. Discuss how the issues of states' rights and slavery increased tensions between the North and South.
				c. Identify major battles and campaigns: Fort Sumter, Gettysburg, the Atlanta Campaign, Sherman's March to the Sea, and Appomattox Court House.
				d. Describe the roles of Abraham Lincoln, Robert E. Lee, Ulysses S. Grant, Jefferson Davis, and Thomas "Stonewall" Jackson.
				e. Describe the effects of war on the North and South.
		SS5H2	The student will analyze the effects of Reconstruction on American life.	a. Describe the purpose of the 13th, 14th, and 15th Amendments.
				b. Explain the work of the Freedmen's Bureau.
				c. Explain how slavery was replaced by sharecropping and how African-Americans were prevented from exercising their newly won rights; include a discussion of Jim Crow laws and customs.
		SS5H3	The student will describe how life changed in America at the turn of the century.	a. Describe the role of the cattle trails in the late 19th century; include the Black Cowboys of Texas, the Great Western Cattle Trail, and the Chisholm Trail.
				b. Describe the impact on American life of the Wright brothers (flight), George Washington Carver (science), Alexander Graham Bell (communication), and Thomas Edison (electricity).
				c. Explain how William McKinley and Theodore Roosevelt expanded America's role in the world; include the Spanish-American War and the building of the Panama Canal.
				d. Describe the reasons people emigrated to the United States, from where they emigrated, and where they settled.
				e. Describe the impact of westward expansion on Native Americans; include the Battle of the Little Bighorn and the relocation of Native Americans to reservations.
		SS5H4	The student will describe U.S. involvement in World War I and post-World War I America.	a. Explain how German attacks on U.S. shipping during the war in Europe (1914–1917) ultimately led the U.S. to join the fight against Germany; include the sinking of the *Lusitania* and concerns over safety of U.S. ships, U.S. contributions to the war, and the impact of the Treaty of Versailles in 1919.
				b. Describe the cultural developments and individual contributions in the 1920s of the Jazz Age (Louis Armstrong), the Harlem Renaissance (Langston Hughes), baseball (Babe Ruth), the automobile (Henry Ford), and the airplane (Charles Lindbergh).

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Historical Understandings**	SS5H5	The student will explain how the Great Depression and New Deal affected the lives of millions of Americans.	a. Discuss the Stock Market Crash of 1929, Herbert Hoover, Franklin Roosevelt, the Dust Bowl, and soup kitchens.
				b. Analyze the main features of the New Deal; include the significance of the Civilian Conservation Corps, the Works Progress Administration, and the Tennessee Valley Authority.
				c. Discuss important cultural elements of the 1930s; include Duke Ellington, Margaret Mitchell, and Jesse Owens.
		SS5H6	The student will explain the reasons for America's involvement in World War II.	a. Describe Germany's aggression in Europe and Japan's aggression in Asia.
				b. Describe major events in the war in both Europe and the Pacific; include Pearl Harbor, Iwo Jima, D-Day, VE and VJ Days, and the Holocaust.
				c. Discuss President Truman's decision to drop the atomic bombs on Hiroshima and Nagasaki.
				d. Identify Roosevelt, Stalin, Churchill, Hirohito, Truman, Mussolini, and Hitler.
				e. Describe the effects of rationing and the changing role of women and African-Americans; include "Rosie the Riveter" and the Tuskegee Airmen.
				f. Explain the U.S. role in the formation of the United Nations.
		SS5H7	The student will discuss the origins and consequences of the Cold War.	a. Explain the origin and meaning of the term "Iron Curtain."
				b. Explain how the United States sought to stop the spread of communism through the Berlin airlift, the Korean War, and the North Atlantic Treaty Organization.
				c. Identify Joseph McCarthy and Nikita Khrushchev.
		SS5H8	The student will describe the importance of key people, events, and developments between 1950–1975.	a. Discuss the importance of the Cuban Missile Crisis and the Vietnam War.
				b. Explain the key events and people of the Civil Rights movement; include *Brown v. Board of Education* (1954), Montgomery Bus Boycott, the March on Washington, Civil Rights Act, Voting Rights Act, and civil rights activities of Thurgood Marshall, Rosa Parks, and Martin Luther King, Jr.
				c. Describe the impact on American society of the assassinations of President John F. Kennedy, Robert F. Kennedy, and Martin Luther King, Jr.
				d. Discuss the significance of the technologies of television and space exploration.

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Historical Understandings**	SS5H9	The student will trace important developments in America since 1975.	a. Describe U.S. involvement in world events; include efforts to bring peace to the Middle East, the collapse of the Soviet Union, the Persian Gulf War, and the War on Terrorism in response to September 11, 2001.
				b. Explain the impact the development of the personal computer and the Internet has had on American life.
	Geographic Understandings	SS5G1	The student will locate important places in the United States.	a. Locate important physical features; include the Grand Canyon, Salton Sea, Great Salt Lake, and Mojave Desert.
				b. Locate important man-made places; include the Chisholm Trail; Pittsburgh, PA; Gettysburg, PA; Kitty Hawk, NC; Pearl Harbor, HI; and Montgomery, AL.
		SS5G2	The student will explain the reasons for the spatial patterns of economic activities.	a. Explain how factors such as population, transportation, and resources influenced industrial location in the United States between the end of the Civil War and 1900.
				b. Locate primary agricultural and industrial locations since the turn of the 20th century and explain how factors such as population, transportation, and resources have influenced these areas.
	Government/ Civic Understandings	SS5CG1	The student will explain how a citizen's rights are protected under the U.S. Constitution.	a. Explain the responsibilities of a citizen.
				b. Explain the freedoms granted and rights protected by the Bill of Rights.
				c. Explain the concept of due process of law and describe how the U.S. Constitution protects a citizen's rights by due process.
		SS5CG2	The student will explain the process by which amendments to the U.S. Constitution are made.	a. Explain the amendment process outlined in the Constitution.
				b. Describe the purpose for the amendment process.
		SS5CG3	The student will explain how amendments to the U.S. Constitution have maintained a representative democracy.	a. Explain the purpose of the 12th and 17th Amendments.
				b. Explain how voting rights were protected by the 15th, 19th, 23rd, 24th, and 26th Amendments.

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Economic Understandings**	SS5E1	The student will use the basic economic concepts of trade, opportunity cost, specialization, voluntary exchange, productivity, and price incentives to illustrate historical events.	a. Describe opportunity costs and their relationship to decision-making across time (such as decisions to ration goods during WWII).
				b. Explain how price incentives affect people's behavior and choices (such as decisions to participate in cattle trails because of increased beef prices).
				c. Describe how specialization improves standards of living, (such as how specific economies in the North and South developed at the beginning of the 20th century).
				d. Explain how voluntary exchange helps both buyers and sellers (such as how specialization leads to the need to exchange to get wants and needs).
				e. Describe how trade promotes economic activity (such as how the Panama Canal increases trade between countries).
				f. Give examples of technological advancements and their impact on business productivity during the continuing development of the United States (such as the development of the personal computer and the Internet).
		SS5E2	The student will describe the functions of four major sectors in the U.S. economy.	a. Describe the household function in providing resources and consuming goods and services.
				b. Describe the private business function in producing goods and services.
				c. Describe the bank function in providing checking accounts, savings accounts, and loans.
				d. Describe the government function in taxation and providing certain goods and services.
		SS5E3	The student will describe how consumers and businesses interact in the U.S. economy.	a. Describe how competition, markets, and prices influence people's behavior.
				b. Describe how people earn income by selling their labor to businesses.
				c. Describe how entrepreneurs take risks to develop new goods and services to start a business.
		SS5E4	The student will identify the elements of a personal budget and explain why personal spending and saving decisions are important.	

Grade 6 Standards

Georgia Alternate Assessment (GAA) Standards — 2016–2017

Grade 6

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Language (L)**	ELAGSE6.L.4		Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content,* choosing flexibly from a range of strategies.
			a.	Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
			b.	Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*).
			c.	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
			d.	Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
	Reading Informational (RI)	ELAGSE6.RI.1		Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE6.RI.2		Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
		ELAGSE6.RI.4		Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
		ELAGSE6.RI.5		Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
	Reading Literary (RL)	ELAGSE6.RL.1		Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE6.RL.2		Determine a theme and/or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
		ELAGSE6.RL.3		Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves towards a resolution.
		ELAGSE6.RL.4		Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
		ELAGSE6.RL.6		Explain how an author develops the point of view of the narrator or speaker in a text.
		ELAGSE6.RL.7		Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE6.W.1		Write arguments to support claims with clear reasons and relevant evidence.
			a.	Introduce claim(s) and organize the reasons and evidence clearly.
			b.	Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
			c.	Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
			d.	Establish and maintain a formal style.
			e.	Provide a concluding statement or section that follows from the argument presented.
		ELAGSE6.W.2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
			a.	Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
			b.	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
			c.	Use appropriate transitions to clarify the relationships among ideas and concepts.
			e.	Establish and maintain a formal style.
			f.	Provide a concluding statement or section that follows from the information or explanation presented.
		ELAGSE6.W.3		Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
			a.	Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
			b.	Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
			c.	Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
			d.	Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
			e.	Provide a conclusion that follows from the narrated experiences or events.
		ELAGSE6.W.5		With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Writing (W)	ELAGSE6.W.7		Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
		ELAGSE6.W.8		Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
		ELAGSE6.W.9		Draw evidence from literary or informational texts to support analysis, reflection, and research.
			a.	Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics").
			b.	Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").
	Speaking and Listening (SL)	ELAGSE6.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 6 topics, texts, and issues,* building on others' ideas and expressing their own clearly.
			a.	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
			b.	Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
			c.	Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
			d.	Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
		ELAGSE6.SL.2		Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
		ELAGSE6.SL.3		Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.
		ELAGSE6.SL.4		Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
		ELAGSE6.SL.5		Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
		ELAGSE6.SL.6		Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Ratios and Proportional Relationships (RP)			**Understand ratio concepts and use ratio reasoning to solve problems.**
		MGSE6.RP.1		Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
		MGSE6.RP.2		Understand the concept of a unit rate $\frac{a}{b}$ associated with a ratio $a{:}b$ with $b \neq 0$ (b not equal to zero), and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."*
		MGSE6.RP.3		Use ratio and rate reasoning to solve real-world and mathematical problems utilizing strategies such as tables of equivalent ratios, tape diagrams (bar models), double number line diagrams, and/or equations.
			a.	Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
			b.	Solve unit rate problems including those involving unit pricing and constant speed. *For example, If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
			c.	Find a percent of a quantity as a rate per 100 (e.g. 30% of a quantity means $\frac{30}{100}$ times the quantity); given a percent, solve problems involving finding the whole given a part and the part given the whole.
			d.	Given a conversion factor, use ratio reasoning to convert measurement units within one system of measurement and between two systems of measurements (customary and metric); manipulate and transform units appropriately when multiplying or dividing quantities. *For example, given 1 in. = 2.54 cm, how many centimeters are in 6 inches?*

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**The Number System (NS)**			**Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**
		MGSE6.NS.1		Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, including reasoning strategies such as using visual fraction models and equations to represent the problem. *For example,* • *create a story context for* $\left(\frac{2}{3}\right) \div \left(\frac{3}{4}\right)$ *and use a visual fraction model to show the quotient;* • *use the relationship between multiplication and division to explain that* $\left(\frac{2}{3}\right) \div \left(\frac{3}{4}\right) = \frac{8}{9}$ *because* $\frac{3}{4}$ *of* $\frac{8}{9}$ *is* $\frac{2}{3}$. *(In general,* $\left(\frac{a}{b}\right) \div \left(\frac{c}{d}\right) = \frac{ad}{bc}$ *.)* • *How much chocolate will each person get if 3 people share* $\frac{1}{2}$ *lb of chocolate equally?* • *How many* $\frac{3}{4}$ *-cup servings are in* $\frac{2}{3}$ *of a cup of yogurt?* • *How wide is a rectangular strip of land with length* $\frac{3}{4}$ *mi and area* $\frac{1}{2}$ *square mi?*
				Compute fluently with multi-digit numbers and find common factors and multiples.
		MGSE6.NS.4		Find the common multiples of two whole numbers less than or equal to 12 and the common factors of two whole numbers less than or equal to 100.
			a.	Find the greatest common factor of 2 whole numbers and use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factors. (GCF) *Example: 36 + 8 = 4(9 + 2)*
			b.	Apply the least common multiple of two whole numbers less than or equal to 12 to solve real-world problems.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Expressions and Equations (EE)**			**Apply and extend previous understandings of arithmetic to algebraic expressions.**
		MGSE6.EE.1		Write and evaluate numerical expressions involving whole-number exponents.
		MGSE6.EE.2		Write, read, and evaluate expressions in which letters stand for numbers.
			c.	Evaluate expressions at specific values for their variables. Include expressions that arise from formulas in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.*
				Reason about and solve one-variable equations and inequalities.
		MGSE6.EE.5		Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
		MGSE6.EE.7		Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
				Represent and analyze quantitative relationships between dependent and independent variables.
		MGSE6.EE.9		Use variables to represent two quantities in a real-world problem that change in relationship to another.
			a.	Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable.
			b.	Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.*
	Geometry (G)			**Solve real-world and mathematical problems involving area, surface area, and volume.**
		MGSE6.G.2		Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths ($\frac{1}{2}$ u), and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = (length) x (width) x (height) and V= (area of base) x (height) to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
		MGSE6.G.4		Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Statistics and Probability (SP)**	**Develop understanding of statistical variability.**		
		MGSE6.SP.1		Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
		Summarize and describe distributions.		
		MGSE6.SP.4		Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

Grade 7 Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Language (L)	ELAGSE7.L.4		Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 7 reading and content*, choosing flexibly from a range of strategies.
			a.	Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
			b.	Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent, bellicose, rebel*).
			c.	Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
			d.	Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
		ELAGSE7.L.5		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
	Reading Informational (RI)	ELAGSE7.RI.1		Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE7.RI.2		Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
		ELAGSE7.RI.3		Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).
		ELAGSE7.RI.5		Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.
		ELAGSE7.RI.7		Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).
		ELAGSE7.RI.8		Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Reading Literary (RL)	ELAGSE7.RL.1		Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE7.RL.2		Determine a theme and/or of a text and analyze its development over the course of the text; provide an objective summary of the text.
		ELAGSE7.RL.3		Analyze how particular elements of a story or drama interact (e.g., how settings shape the characters or plot).
		ELAGSE7.RL.4		Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.
		ELAGSE7.RL.5		Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.
		ELAGSE7.RL.6		Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.
		ELAGSE7.RL.7		Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).
		ELAGSE7.RL.9		Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.
	Writing (W)	ELAGSE7.W.1		Write arguments to support claims with clear reasons and relevant evidence.
			a.	Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
			b.	Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
			c.	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
			d.	Establish and maintain a formal style.
			e.	Provide a concluding statement or section that follows from and supports the argument presented.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE7.W.2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
			a.	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
			b.	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
			c.	Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
			e.	Establish and maintain a formal style.
			f.	Provide a concluding statement or section that follows from and supports the information or explanation presented.
		ELAGSE7.W.3		Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
			a.	Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
			b.	Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
			c.	Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
			d.	Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
			e.	Provide a conclusion that follows from and reflects on the narrated experiences or events.
		ELAGSE7.W.5		With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
		ELAGSE7.W.7		Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
		ELAGSE7.W.8		Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE7.W.9		Draw evidence from literary or informational texts to support analysis, reflection, and research.
			a.	Apply *grade 7 Reading standards* to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").
			b.	Apply grade 7 Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").
	Speaking and Listening (SL)	ELAGSE7.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 7 topics, texts, and issues,* building on others' ideas and expressing their own clearly.
			a.	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
			b.	Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
			c.	Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
			d.	Acknowledge new information expressed by others and, when warranted, modify their own views and understanding.
		ELAGSE7.SL.2		Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
		ELAGSE7.SL.4		Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
		ELAGSE7.SL.5		Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
		ELAGSE7.SL.6		Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Ratios and Proportional Relationships (RP)**			**Analyze proportional relationships and use them to solve real-world and mathematical problems.**
		MGSE7.RP.1		Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{\left(\frac{1}{2}\right)}{\left(\frac{1}{4}\right)}$ miles per hour, equivalently 2 miles per hour.*
		MGSE7.RP.2		Recognize and represent proportional relationships between quantities.
			a.	Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
			b.	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
	The Number System (NS)			**Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**
		MGSE7.NS.1		Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
			a.	Show that a number and its opposite have a sum of 0 (are additive inverses). Describe situations in which opposite quantities combine to make 0. *For example, your bank account balance is -$25.00. You deposit $25.00 into your account. The net balance is $0.00.*
			b.	Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative. Interpret sums of rational numbers by describing real world contexts.
			c.	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
			d.	Apply properties of operations as strategies to add and subtract rational numbers.
		MGSE7.NS.2		Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
			a.	Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
			b.	Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers then $-\left(\frac{p}{q}\right) = \frac{(-p)}{q} = \frac{p}{(-q)}$. Interpret quotients of rational numbers by describing real-world contexts.
			c.	Apply properties of operations as strategies to multiply and divide rational numbers.
		MGSE7.NS.3		Solve real-world and mathematical problems involving the four operations with rational numbers.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Expressions and Equations (EE)**			**Use properties of operations to generate equivalent expressions.**
		MGSE7.EE.1		Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
		MGSE7.EE.2		Understand that rewriting an expression in different forms in a problem context can clarify the problem and how the quantities in it are related. *For example a + 0.05a = 1.05a means that adding a 5% tax to a total is the same as multiplying the total by 1.05.*
				Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
		MGSE7.EE.3		Solve multistep real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals) by applying properties of operations as strategies to calculate with numbers, converting between forms as appropriate, and assessing the reasonableness of answers using mental computation and estimation strategies. *For example:* • *If a woman making $25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or $2.50, for a new salary of $27.50.* • *If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*
		MGSE7.EE.4		Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
			a.	Solve word problems leading to equations of the form *px+q=r* and *p(x+q)=r*, where *p*, *q*, and *r* are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
			c.	Solve real-world and mathematical problems by writing and solving equations of the form x+p = q and px = q in which p and q are rational numbers.
	Geometry (G)			**Draw, construct, and describe geometrical figures and describe the relationships between them.**
		MGSE7.G.1		Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
		MGSE7.G.3		Describe the two-dimensional figures (cross sections) that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms, right rectangular pyramids, cones, cylinders, and spheres.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Statistics and Probability (SP)**			**Use random sampling to draw inferences about a population.**
		MGSE7.SP.1		Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
		MGSE7.SP.2		Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*
				Draw informal comparative inferences about two populations.
		MGSE7.SP.3		Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the medians by expressing it as a multiple of the interquartile range.
		MGSE7.SP.4		Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

Grade 8 Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Language (L)**	ELAGSE8.L.4		Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on *grade 8 reading and content*, choosing flexibly from a range of strategies.
			a.	Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
			c.	Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
			d.	Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
		ELAGSE8.L.5		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
	Reading Informational (RI)	ELAGSE8.RI.1		Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE8.RI.2		Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
		ELAGSE8.RI.3		Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
		ELAGSE8.RI.4		Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
		ELAGSE8.RI.5		Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
		ELAGSE8.RI.6		Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
		ELAGSE8.RI.7		Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
		ELAGSE8.RI.8		Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
		ELAGSE8.RI.9		Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	Reading Literary (RL)	ELAGSE8.RL.1		Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
		ELAGSE8.RL.2		Determine a theme and/or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.
		ELAGSE8.RL.3		Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
		ELAGSE8.RL.4		Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
		ELAGSE8.RL.5		Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.
		ELAGSE8.RL.7		Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
		ELAGSE8.RL.9		Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.
	Writing (W)	ELAGSE8.W.1		Write arguments to support claims with clear reasons and relevant evidence.
			a.	Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
			b.	Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
			c.	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
			d.	Establish and maintain a formal style.
			e.	Provide a concluding statement or section that follows from and supports the argument presented.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE8.W.2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
			a.	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
			b.	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
			c.	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
			e.	Establish and maintain a formal style.
			f.	Provide a concluding statement or section that follows from and supports the information or explanation presented.
		ELAGSE8.W.3		Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
			a.	Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
			b.	Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.
			c.	Use a variety of transition words, phrases, and clauses to convey sequence signal shifts from one time frame or setting to another, and show the relationships among experiences and events.
			d.	Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
			e.	Provide a conclusion that follows from and reflects on the narrated experiences or events.
		ELAGSE8.W.5		With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
		ELAGSE8.W.7		Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
		ELAGSE8.W.8		Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

Content Area	Domain	Standard	Indicator	Complete Description
ELA	**Writing (W)**	ELAGSE8.W.9		Draw evidence from literary or informational texts to support analysis, reflection, and research.
			a.	Apply *grade 8 Reading standards* to literature (e.g., "Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new").
			b.	Apply *grade 8 Reading standards* to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").
	Speaking and Listening (SL)	ELAGSE8.SL.1		Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 8 topics and texts*, building on others' ideas and expressing their own clearly.
			a.	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
			b.	Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.
			c.	Pose questions that connect the ideas of several speakers and elicit elaboration and respond to others' questions and comments with relevant evidence, observations, and ideas.
			d.	Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views and understanding in light of the evidence presented.
		ELAGSE8.SL.2		Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
		ELAGSE8.SL.4		Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
		ELAGSE8.SL.5		Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.
		ELAGSE8.SL.6		Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**The Number System (NS)**			**Know that there are numbers that are not rational, and approximate them by rational numbers.**
		MGSE8.NS.1		Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
		MGSE8.NS.2		Use rational approximation of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line, and estimate the value of expressions (e.g., estimate π^2 to the nearest tenth). *For example, by truncating the decimal expansion of √2 (square root of 2), show that √2 is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*
	Expressions and Equations (EE)			**Work with radicals and integer exponents.**
		MGSE8.EE.1		Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{(-5)} = 3^{(-3)} = \frac{1}{(3^3)} = \frac{1}{27}$.
		MGSE8.EE.2		Use square root and cube root symbols to represent solutions to equations. Recognize that $x^2 = p$ (where p is a positive rational number and $|x| \le 25$) has 2 solutions and $x^3 = p$ (where p is a negative or positive rational number and $|x| \le 10$) has one solution. Evaluate square roots of perfect squares ≤ 625 and cube roots of perfect cubes ≥ -1000 and ≤ 1000.
		MGSE8.EE.3		Use numbers expressed in scientific notation to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9, and determine that the world population is more than 20 times larger.*
		MGSE8.EE.4		Add, subtract, multiply and divide numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Understand scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g. use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology (e.g. calculators).
				Understand the connections between proportional relationships, lines, and linear equations.
		MGSE8.EE.5		Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
		MGSE8.EE.6		Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	Expressions and Equations (EE)			**Analyze and solve linear equations and pairs of simultaneous linear equations.**
		MGSE8.EE.7		Solve linear equations in one variable.
			a.	Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
			b.	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
		MGSE8.EE.8		Analyze and solve pairs of simultaneous linear equations (systems of linear equations).
			a.	Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
			b.	Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example,* $3x + 2y = 5$ *and* $3x + 2y = 6$ *have no solution because* $3x + 2y$ *cannot simultaneously be 5 and 6.*
			c.	Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*
	Functions (F)			**Define, evaluate, and compare functions.**
		MGSE8.F.1		Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
		MGSE8.F.2		Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
		MGSE8.F.3		Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function* $A = s^2$ *giving the area of a square as a function of its side length is not linear because its graph contains the points* (1, 1)*,* (2, 4) *and* (3, 9)*, which are not on a straight line.*
				Use functions to model relationships between quantities.
		MGSE8.F.4		Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
		MGSE8.F.5		Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Content Area	Domain	Standard	Indicator	Complete Description
Mathematics	**Geometry (G)**			**Understand congruence and similarity using physical models, transparencies, or geometry software.**
		MGSE8.G.2		Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
		MGSE8.G.5		Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the three angles appear to form a line, and give an argument in terms of transversals why this is so.*
				Understand and apply the Pythagorean Theorem.
		MGSE8.G.6		Explain a proof of the Pythagorean Theorem and its converse.
		MGSE8.G.7		Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
	Statistics and Probability (SP)			**Investigate patterns of association in bivariate data.**
		MGSE8.SP.1		Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
		MGSE8.SP.2		Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
		MGSE8.SP.3		Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*

Content Area	Science Strand	Standard	Description	Element	Characteristics of Science
Science	**Physical Science**	S8P1	Students will examine the scientific view of the nature of matter.	a. Distinguish between atoms and molecules.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Analyzes scientific data via calculations and inference – Recognizes the importance of explaining data with precision and accuracy
				b. Describe the difference between pure substances (elements and compounds) and mixtures.	
				c. Describe the movement of particles in solids, liquids, gases, and plasmas states.	
				d. Distinguish between physical and chemical properties of matter as physical (i.e., density, melting point, boiling point) or chemical (i.e., reactivity, combustibility).	
				e. Distinguish between changes in matter as physical (i.e., physical change) or chemical (development of a gas, formation of precipitate, and change in color).	
				f. Recognize that there are more than 100 elements and some have similar properties as shown on the Periodic Table of Elements.	
				g. Identify and demonstrate the Law of Conservation of Matter.	
		S8P2	Students will be familiar with the forms and transformations of energy.	a. Explain energy transformation in terms of the Law of Conservation of Energy.	
				b. Explain the relationship between potential and kinetic energy.	
				c. Compare and contrast the different forms of energy (heat, light, electricity, mechanical motion, sound) and their characteristics.	
				d. Describe how heat can be transferred through matter by the collisions of atoms (conduction) or through space (radiation). In a liquid or gas, currents will facilitate the transfer of heat (convection).	

Content Area	Science Strand	Standard	Description	Element	Characteristics of Science
Science	**Physical Science**	S8P3	Students will investigate relationship between force, mass, and the motion of objects.	a. Determine the relationship between velocity and acceleration.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Analyzes scientific data via calculations and inference – Recognizes the importance of explaining data with precision and accuracy
				b. Demonstrate the effect of balanced and unbalanced forces on an object in terms of gravity, inertia, and friction.	
				c. Demonstrate the effect of simple machines (lever, inclined plane, pulley, wedge, screw, and wheel and axle) on work.	
		S8P4	Students will explore the wave nature of sound and electromagnetic radiation.	a. Identify the characteristics of electromagnetic and mechanical waves.	
				b. Describe how the behavior of light waves is manipulated causing reflection, refraction, diffraction, and absorption.	
				c. Explain how the human eye sees objects and colors in terms of wavelengths.	
				d. Describe how the behavior of waves is affected by medium (such as air, water, solids).	
				e. Relate the properties of sound to everyday experiences.	
				f. Diagram the parts of the wave and explain how the parts are affected by changes in amplitude and pitch.	
		S8P5	Students will recognize characteristics of gravity, electricity, and magnetism as major kinds of forces acting in nature.	a. Recognize that every object exerts gravitational force on every other object and that the force exerted depends on how much mass the objects have and how far apart they are.	
				b. Demonstrate the advantages and disadvantages of series and parallel circuits and how they transfer energy.	
				c. Investigate and explain that electric currents and magnets can exert force on each other.	

Content Area	Social Studies Strand	Standard	Description	Element
			Georgia Studies	
Social Studies	**Historical Understandings**	SS8H1	The student will evaluate the development of Native American cultures and the impact of European exploration and settlement on the Native American cultures in Georgia.	a. Describe the evolution of Native American cultures (Paleo, Archaic, Woodland, and Mississippian) prior to European contact.
				b. Evaluate the impact of European contact on Native American cultures; include Spanish missions along the barrier islands, and the explorations of Hernando DeSoto.
				c. Explain reasons for European exploration and settlement of North America, with emphasis on the interests of the French, Spanish, and British in the southeastern area.
		SS8H2	The student will analyze the colonial period of Georgia's history.	a. Explain the importance of James Oglethorpe, the Charter of 1732, reasons for settlement (charity, economics, and defense), Tomochichi, Mary Musgrove, and the city of Savannah.
				b. Evaluate the Trustee Period of Georgia's colonial history, emphasizing the role of the Salzburgers, Highland Scots, malcontents, and the Spanish threat from Florida.
				c. Explain the development of Georgia as a royal colony with regard to land ownership, slavery, government, and the impact of the royal governors.
		SS8H3	The student will analyze the role of Georgia in the American Revolution.	a. Explain the immediate and long-term causes of the American Revolution and their impact on Georgia; include the French and Indian War (Seven Years War), Proclamation of 1763, Stamp Act, Intolerable Acts, and the Declaration of Independence.
				b. Analyze the significance of people and events in Georgia on the Revolutionary War; include Loyalists, patriots, Elijah Clarke, Austin Dabney, Nancy Hart, Button Gwinnett, Lyman Hall, George Walton, Battle of Kettle Creek, and siege of Savannah.
		SS8H4	The student will describe the impact of events that led to the ratification of the United States Constitution and the Bill of Rights.	a. Analyze the strengths and weaknesses of both the Georgia Constitution of 1777 and the Articles of Confederation and explain how weaknesses in the Articles of Confederation led to a need to revise the Articles.
				b. Describe the role of Georgia at the Constitutional Convention of 1787; include the role of Abraham Baldwin and William Few, and reasons why Georgia ratified the new constitution.
		SS8H5	The student will explain significant factors that affected the development of Georgia as part of the growth of the United States between 1789 and 1840.	a. Explain the establishment of the University of Georgia, Louisville, and the spread of Baptist and Methodist churches.
				b. Evaluate the impact of land policies pursued by Georgia; include the headright system, land lotteries, and the Yazoo land fraud.
				c. Explain how technological developments, including the cotton gin and railroads, had an impact on Georgia's growth.
				d. Analyze the events that led to the removal of Creeks and Cherokees; include the roles of Alexander McGillivray, William McIntosh, Sequoyah, John Ross, Dahlonega Gold Rush, Worcester v. Georgia, Andrew Jackson, John Marshall, and the Trail of Tears.

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Historical Understandings**			**Georgia Studies**
		SS8H6	The student will analyze the impact of the Civil War and Reconstruction on Georgia.	a. Explain the importance of key issues and events that led to the Civil War; include slavery, states' rights, nullification, Missouri Compromise, Compromise of 1850 and the Georgia Platform, Kansas-Nebraska Act, Dred Scott case, election of 1860, the debate over secession in Georgia, and the role of Alexander Stephens.
				b. State the importance of key events of the Civil War; include Antietam, the Emancipation Proclamation, Gettysburg, Chickamauga, the Union blockade of Georgia's coast, Sherman's Atlanta Campaign, Sherman's March to the Sea, and Andersonville.
				c. Analyze the impact of Reconstruction on Georgia and other southern states, emphasizing Freedmen's Bureau; sharecropping and tenant farming; Reconstruction plans; 13th, 14th, and 15th Amendments to the constitution; Henry McNeal Turner and black legislators; and the Ku Klux Klan.
		SS8H7	The student will evaluate key political, social, and economic changes that occurred in Georgia between 1877 and 1918.	a. Evaluate the impact the Bourbon Triumvirate, Henry Grady, International Cotton Exposition, Tom Watson and the Populists, Rebecca Latimer Felton, the 1906 Atlanta Riot, the Leo Frank Case, and the county unit system had on Georgia during this period.
				b. Analyze how rights were denied to African-Americans through Jim Crow laws, Plessy v. Ferguson, disenfranchisement, and racial violence.
				c. Explain the roles of Booker T. Washington, W.E.B. DuBois, John and Lugenia Burns Hope, and Alonzo Herndon.
				d. Explain reasons for World War I and describe Georgia's contributions.
		SS8H8	The student will analyze the important events that occurred after World War I and their impact on Georgia.	a. Describe the impact of the boll weevil and drought on Georgia.
				b. Explain economic factors that resulted in the Great Depression.
				c. Discuss the impact of the political career of Eugene Talmadge.
				d. Discuss the effect of the New Deal in terms of the impact of the Civilian Conservation Corps, Agricultural Adjustment Act, rural electrification, and Social Security.
		SS8H9	The student will describe the impact of World War II on Georgia's development economically, socially, and politically.	a. Describe the impact of events leading up to American involvement in World War II; include Lend-Lease and the bombing of Pearl Harbor.
				b. Evaluate the importance of Bell Aircraft, military bases, the Savannah and Brunswick shipyards, Richard Russell, and Carl Vinson.
				c. Explain the impact of the Holocaust on Georgians.
				d. Discuss President Roosevelt's ties to Georgia including his visits to Warm Springs and his impact on the state.

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies			**Georgia Studies**	
	Historical Understandings	SS8H10	The student will evaluate key post-World War II developments of Georgia from 1945 to 1970.	a. Analyze the impact of the transformation of agriculture on Georgia's growth.
				b. Explain how the development of Atlanta, including the roles of mayors William B. Hartsfield and Ivan Allen, Jr., and major league sports, contributed to the growth of Georgia.
				c. Discuss the impact of Ellis Arnall.
		SS8H11	The student will evaluate the role of Georgia in the modern civil rights movement.	a. Describe major developments in civil rights and Georgia's role during the 1940s and 1950s; include the roles of Herman Talmadge, Benjamin Mays, the 1946 governor's race and the end of the white primary, Brown v. Board of Education, Martin Luther King, Jr., and the 1956 state flag.
				b. Analyze the role Georgia and prominent Georgians played in the Civil Rights Movement of the 1960s and 1970s; include such events as the founding of the Student Non-Violent Coordinating Committee (SNCC), Sibley Commission, admission of Hamilton Holmes and Charlayne Hunter to the University of Georgia, Albany Movement, March on Washington, Civil Rights Act, the election of Maynard Jackson as mayor of Atlanta, and the role of Lester Maddox.
				c. Discuss the impact of Andrew Young on Georgia.
		SS8H12	The student will explain the importance of significant social, economic, and political developments in Georgia since 1970.	a. Evaluate the consequences of the end of the county unit system and reapportionment.
				b. Describe the role of Jimmy Carter in Georgia as state senator, governor, president, and past president.
				c. Analyze the impact of the rise of the two-party system in Georgia.
				d. Evaluate the effect of the 1996 Olympic Games on Georgia.
				e. Evaluate the importance of new immigrant communities to the growth and economy of Georgia.

Content Area	Social Studies Strand	Standard	Description	Element
Social Studies	**Georgia Studies**			
	Geographic Understandings	SS8G1	The student will describe Georgia with regard to physical features and location.	a. Locate Georgia in relation to region, nation, continent, and hemispheres.
				b. Describe the five geographic regions of Georgia; include the Blue Ridge Mountains, Valley and Ridge, Appalachian Plateau, Piedmont, and Coastal Plain.
				c. Locate and evaluate the importance of key physical features on the development of Georgia; include the Fall Line, Okefenokee Swamp, Appalachian Mountains, Chattahoochee and Savannah Rivers, and barrier islands.
				d. Evaluate the impact of climate on Georgia's development.
		SS8G2	The student will explain how the Interstate Highway System, Hartsfield-Jackson International Airport, and Georgia's deepwater ports, and the railroads help drive the state's economy.	a. Explain how the four transportation systems interact to provide domestic and international goods to the people of Georgia.
				b. Explain how the four transportation systems interact to provide producers and service providers in Georgia with national and international markets.
				c. Explain how the four transportation systems provide jobs for Georgians.
	Government/ Civic Understandings	SS8CG1	The student will describe the role of citizens under Georgia's constitution.	a. Explain the basic structure of the Georgia state constitution.
				b. Explain the concepts of separation of powers and checks and balances
				c. Describe the rights and responsibilities of citizens.
				d. Explain voting qualifications and elections in Georgia.
				e. Explain the role of political parties in government.
				f. Identify wisdom, justice, and moderation as the three principles of the Pledge of Allegiance to the Georgia Flag.

Content Area	Social Studies Strand	Standard	Description	Element
			Georgia Studies	
Social Studies	**Government/ Civic Understandings**	SS8CG2	The student will analyze the role of the legislative branch in Georgia state government.	a. Explain the qualifications, term, election, and duties of members of the General Assembly.
				b. Describe the organization of the General Assembly, with emphasis on leadership and the committee system.
				c. Evaluate how the legislative branch fulfills its role as the lawmaking body for the state of Georgia.
		SS8CG3	The student will analyze the role of the executive branch in Georgia state government.	a. Explain the qualifications, term, election, and duties of the governor and lieutenant governor.
				b. Describe the organization of the executive branch, with emphasis on major policy areas of state programs; include education, human resources, public safety, transportation, economic development, and natural resources.
				c. Evaluate how the executive branch fulfills its role through state agencies that administer programs and enforce laws.
		SS8CG4	The student will analyze the role of the judicial branch in Georgia state government.	a. Explain the structure of the court system in Georgia including trial and appellate procedures and how judges are selected.
				b. Explain the difference between criminal law and civil law.
				c. Describe the adult justice system, emphasizing the different jurisdictions, terminology, and steps in the criminal justice process.
				d. Describe ways to avoid trouble and settle disputes peacefully.
				e. Evaluate how the judicial branch fulfills its role in interpreting the laws of Georgia and ensuring justice in our legal system.
		SS8CG5	The student will analyze the role of local governments in the state of Georgia.	a. Explain the origins, functions, purposes, and differences of county and city governments in Georgia.
				b. Compare and contrast the weak mayor-council, the strong mayor-council, and the council-manager forms of city government.
				c. Describe the functions of special-purpose governments.
				d. Evaluate the role of local government working with state agencies to administer state programs.

Content Area	Social Studies Strand	Standard	Description	Element
	Georgia Studies			
Social Studies	**Government/ Civic Understandings**	SS8CG6	The student will explain how the Georgia court system treats juvenile offenders.	a. Explain the difference between delinquent behavior and unruly behavior and the consequences of each.
				b. Describe the rights of juveniles when taken into custody.
				c. Describe the juvenile justice system, emphasizing the different jurisdictions, terminology, and steps in the juvenile justice process.
				d. Explain the seven delinquent behaviors that can subject juvenile offenders to the adult criminal process, how the decision to transfer to adult court is made, and the possible consequences.
	Economic Understandings	SS8E1	The student will give examples of the kinds of goods and services produced in Georgia in different historical periods.	
		SS8E2	The student will explain the benefits of free trade.	a. Describe how Georgians have engaged in trade in different historical time periods.
				b. Explain how the four transportation systems from SS8G2 contribute to Georgia's role in trade.
		SS8E3	The student will evaluate the influence of Georgia's economic growth and development.	a. Define profit and describe how profit is an incentive for entrepreneurs.
				b. Explain how entrepreneurs take risks to develop new goods and services to start a business.
				c. Evaluate the importance of entrepreneurs in Georgia who developed such enterprises as Coca-Cola, Delta Airlines, Georgia-Pacific, and Home Depot.
		SS8E4	The student will identify revenue sources for and services provided by state and local governments.	a. Trace sources of state revenue such as sales taxes, federal grants, personal income taxes, and property taxes.
				b. Explain the distribution of state revenue to provide services.
				c. Evaluate how choices are made given the limited revenues of state and local governments.
		SS8E5	The student will explain personal money management choices in terms of income, spending, credit, saving, and investing.	

High School Standards

Content Area	Domain	Standard	Indicator	Complete Description
ELA			**Reading and American Literature*** **may use any high school literature*	
	Language (L)	ELAGSE11-12.L.4		Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11–12 reading and content*, choosing flexibly from a range of strategies.
			a.	Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
			b.	Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., *conceive, conception, conceivable*).
			c.	Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology, or its standard usage.
			d.	Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
		ELAGSE11-12.L.5		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
			a.	Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.
			b.	Analyze nuances in the meaning of words with similar denotations.
	Reading Informational (RI)* **may use any high school literature*	ELAGSE11-12.RI.1		Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
		ELAGSE11-12.RI.2		Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
		ELAGSE11-12.RI.3		Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
		ELAGSE11-12.RI.4		Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
		ELAGSE11-12.RI.5		Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
		ELAGSE11-12.RI.6		Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.
		ELAGSE11-12.RI.7		Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

Content Area	Domain	Standard	Indicator	Complete Description
ELA				**Reading and American Literature*** *may use any high school literature*
	Reading Informational (RI)* *may use any high school literature*	ELAGSE11-12.RI.8		Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., *The Federalist*, presidential addresses.)
		ELAGSE11-12.RI.9		Analyze foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features. For British Literature, American Literature, and Multicultural Literature use comparable documents of historical significance.
	Reading Literary (RL)* *may use any high school literature*	ELAGSE11-12.RL.1		Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
		ELAGSE11-12.RL.2		Determine two or more themes or central ideas of text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.
		ELAGSE11-12.RL.3		Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).
		ELAGSE11-12.RL.4		Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)
		ELAGSE11-12.RL.5		Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.
		ELAGSE11-12.RL.6		Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement).
		ELAGSE11-12.RL.7		Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare as well as one play by an American dramatist.)
		ELAGSE11-12.RL.9		Demonstrate knowledge of eighteenth-, nineteenth- and early twentieth-century foundational works (of American Literature, British Literature, World Literature, or Multicultural Literature), including how two or more texts from the same period treat similar themes or topics.

Content Area	Domain	Standard	Indicator	Complete Description
				Communication
ELA	**Writing (W)**	ELAGSE9-10.W.1		Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
			a.	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
			b.	Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.
			c.	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
		ELAGSE9-10.W.2		Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
			a.	Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
			b.	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
			c.	Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
		ELAGSE9-10.W.3		Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
			a.	Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
			b.	Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.
			c.	Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.
			d.	Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.
			e.	Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

Content Area	Domain	Standard	Indicator	Complete Description
				Communication
ELA	**Speaking and Listening (SL)**	ELAGSE9-10.SL.1		Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues,* building on others' ideas and expressing their own clearly and persuasively.
			a.	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
			b.	Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
			c.	Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
			d.	Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
		ELAGSE9-10.SL.2		Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.
		ELAGSE9-10.SL.3		Evaluate and/or reflect on a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.
		ELAGSE9-10.SL.4		Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
		ELAGSE9-10.SL.5		Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Content Area	Domain	Standard	Indicator	Complete Description
Coordinate Algebra	**Algebra** (*Includes Number and Quantity*)			**Create equations that describe numbers or relationships.**
		MGSE9-12.A.CED.1		Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear, ~~quadratic, simple rational~~, and exponential functions (integer inputs only).
		MGSE9-12.A.CED.2		Create linear, ~~quadratic~~, and exponential equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (The phrase "in two or more variables" refers to formulas like the compound interest formula, in which $A = P(1 + r/n)^{nt}$ has multiple variables.)
				Solve equations and inequalities in one variable.
		MGSE9-12.A.REI.3		Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
	Functions			**Understand the concept of a function and use function notation.**
		MGSE9-12.F.IF.2		Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
				Interpret functions that arise in applications in terms of the context.
		MGSE9-12.F.IF.6		Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
				Build a function that models a relationship between two quantities.
		MGSE9-12.F.BF.1		Write a function that describes a relationship between two quantities.
			a.	Determine an explicit expression, a recursive process, or steps for calculation from a context.
	Algebra Connections to Geometry			**Experiment with transformations in the plane.**
		MGSE9-12.G.CO.2		Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
		MGSE9-12.G.CO.3		Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
	Algebra Connections to Statistics and Probability			**Summarize, represent, and interpret data on a single count or measurement variable.**
		MGSE9-12.S.ID.1		Represent data with plots on the real number line (dot plots, histograms, and box plots).
		MGSE9-12.S.ID.2		Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, ~~standard deviation~~)* of two or more different data sets.
				Summarize, represent, and interpret data on two categorical and quantitative variables.
		MGSE9-12.S.ID.6		Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
			c.	Fit a linear function for a scatter plot that suggests a linear association.

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Content Area	Domain	Standard	Indicator	Complete Description
Analytic Geometry	**Congruence and Similarity**			**Understand congruence in terms of rigid motions.**
		MGSE9-12.G.CO.6		Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
		MGSE9-12.G.CO.7		Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
				Make geometric constructions.
		MGSE9-12.G.CO.12		Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
				Understand similarity in terms of similarity transformations.
		MGSE9-12.G.SRT.1		Verify experimentally the properties of dilations given by a center and a scale factor:
			a.	A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
			b.	The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
		MGSE9-12.G.SRT.2		Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
		MGSE9-12.G.SRT.3		Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.
	Circles			**Understand and apply theorems about circles.**
		MGSE9-12.G.C.2		Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
	Equations and Measurement			**Explain volume formulas and use them to solve problems.**
		MGSE9-12.G.GMD.3		Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

Content Area	Domain	Standard	Indicator	Complete Description
Analytic Geometry	**Expressions, Equations, and Functions (***Including Number***)**			**Solve equations and inequalities in one variable.**
		MGSE9-12.A.REI.4		Solve quadratic equations in one variable.
			b.	Solve quadratic equations by inspection (e.g., for x² = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a ± bi for real numbers a and b.
				Interpret functions that arise in applications in terms of the context.
		MGSE9-12.F.IF.4		For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; ~~and periodicity~~.*
	Statistics and Probability			**Understand independence and conditional probability and use them to interpret data.**
		MGSE9-12.S.CP.1		Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").
				Use the rules of probability to compute probabilities of compound events in a uniform probability model.
		MGSE9-12.S.CP.6		Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.

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Content Area	Domain	Standard	Indicator	Complete Description
Algebra I	**Equations**			**Create equations that describe numbers or relationships.**
		MGSE9-12.A.CED.1		Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear, quadratic, ~~simple rational~~, and exponential functions (integer inputs only).
		MGSE9-12.A.CED.2		Create linear, quadratic, and exponential equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (The phrase "in two or more variables" refers to formulas like the compound interest formula, in which $A = P(1 + r/n)^{nt}$ has multiple variables.)
				Solve equations and inequalities in one variable.
		MGSE9-12.A.REI.3		Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
		MGSE9-12.A.REI.4		Solve quadratic equations in one variable.
			b.	Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.
	Functions			**Understand the concept of a function and use function notation.**
		MGSE9-12.F.IF.2		Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
				Interpret functions that arise in applications in terms of the context.
		MGSE9-12.F.IF.4		For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; ~~and periodicity~~.*
		MGSE9-12.F.IF.6		Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
				Build a function that models a relationship between two quantities.
		MGSE9-12.F.BF.1		Write a function that describes a relationship between two quantities.
			a.	Determine an explicit expression, a recursive process, or steps for calculation from a context.
	Algebra Connections to Statistics and Probability			**Summarize, represent, and interpret data on a single count or measurement variable.**
		MGSE9-12.S.ID.1		Represent data with plots on the real number line (dot plots, histograms, and box plots).
		MGSE9-12.S.ID.2		Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, ~~standard deviation~~)* of two or more different data sets.
				Summarize, represent, and interpret data on two categorical and quantitative variables.
		MGSE9-12.S.ID.6		Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
			c.	Fit a linear function for a scatter plot that suggests a linear association.

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Content Area	Domain	Standard	Indicator	Complete Description
Geometry	**Congruence and Similarity**			**Experiment with transformations in the plane.**
		MGSE9-12.G.CO.2		Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
		MGSE9-12.G.CO.3		Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
				Understand congruence in terms of rigid motions.
		MGSE9-12.G.CO.6		Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
		MGSE9-12.G.CO.7		Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
				Make geometric constructions.
		MGSE9-12.G.CO.12		Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
				Understand similarity in terms of similarity transformations.
		MGSE9-12.G.SRT.1		Verify experimentally the properties of dilations given by a center and a scale factor:
			a.	A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
			b.	The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
		MGSE9-12.G.SRT.2		Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
		MGSE9-12.G.SRT.3		Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.
	Circles			**Understand and apply theorems about circles.**
		MGSE9-12.G.C.2		Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
	Equations and Measurement			**Explain volume formulas and use them to solve problems.**
		MGSE9-12.G.GMD.3		Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

Content Area	Domain	Standard	Indicator	Complete Description
Geometry	Statistics and Probability			**Understand independence and conditional probability and use them to interpret data.**
		MGSE9-12.S.CP.1		Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").
				Use the rules of probability to compute probabilities of compound events in a uniform probability model.
		MGSE9-12.S.CP.6		Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	**Biology**	SB1	Students will analyze the nature of the relationships between structures and functions in living cells.	a. Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction. b. Explain how enzymes function as catalysts. c. Identify the function of the four major macromolecules (i.e., carbohydrates, proteins, lipids, nucleic acids). d. Explain the impact of water on life processes (i.e., osmosis, diffusion).	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy

		SB2	Students will analyze how biological traits are passed on to successive generations.	a. Distinguish between DNA and RNA.
				
				b. Explain the role of DNA in storing and transmitting cellular information.
				
				c. Using Mendel's laws, explain the role of meiosis in reproductive variability.
				
				d. Describe the relationships between changes in DNA and potential appearance of new traits including
				• Alterations during replication.
				  • Insertions
				  • Deletions
				  • Substitutions
				• Mutagenic factors that can alter DNA.
				  • High energy radiation (x-rays and ultraviolet)
				  • Chemical
				
				e. Compare the advantages of sexual reproduction and asexual reproduction in different situations.
				
				f. Examine the use of DNA technology in forensics, medicine, and agriculture.	

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	**Biology**	SB3	Students will derive the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.	a. Explain the cycling of energy through the processes of photosynthesis and respiration. b. Compare how structures and function vary between the six kingdoms (archaebacteria, eubacteria, protists, fungi, plants, and animals). c. Examine the evolutionary basis of modern classification systems. d. Compare and contrast viruses with living organisms.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy
		SB4	Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.	a. Investigate the relationships among organisms, populations, communities, ecosystems, and biomes. b. Explain the flow of matter and energy through ecosystems by • Arranging components of a food chain according to energy flow. • Comparing the quantity of energy in the steps of an energy pyramid. • Explaining the need for cycling of major nutrients (C, O, H, N, P). c. Relate environmental conditions to successional changes in ecosystems. d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption. e. Relate plant adaptations, including tropisms, to the ability to survive stressful environmental conditions. f. Relate animal adaptations, including behaviors, to the ability to survive stressful environmental conditions.	

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	**Biology**	SB5	Students will evaluate the role of natural selection in the development of the theory of evolution.	a. Trace the history of the theory. b. Explain the history of life in terms of biodiversity, ancestry, and the rates of evolution. c. Explain how fossil and biochemical evidence support the theory. d. Relate natural selection to changes in organisms. e. Recognize the role of evolution to biological resistance (pesticide and antibiotic resistance).	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy
	Physical Science	SPS1	Students will investigate our current understanding of the atom.	a. Examine the structure of the atom in terms of: • proton, electron, and neutron locations. • atomic mass and atomic number. • atoms with different numbers of neutrons (isotopes). • explain the relationship of the proton number to the element's identity. b. Compare and contrast ionic and covalent bonds in terms of electron movement.	
		SPS2	Students will explore the nature of matter, its classifications, and its system for naming types of matter.	a. Calculate density when given a means to determine a substance's mass and volume. c. Use IUPAC nomenclature for transition between chemical names and chemical formulas of: • binary ionic compounds (containing representative elements). • binary covalent compounds (i.e., carbon dioxide, carbon tetrachloride). d. Demonstrate the Law of Conservation of Matter in a chemical reaction. e. Apply the Law of Conservation of Matter by balancing the following types of chemical equations: • Synthesis • Decomposition • Single Replacement • Double Replacement	

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	**Physical Science**	SPS3	Students will distinguish the characteristics and components of radioactivity.	a. Differentiate among alpha and beta particles and gamma radiation. b. Differentiate between fission and fusion. d. Describe nuclear energy, its practical application as an alternative energy source, and its potential problems.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy
		SPS4	Students will investigate the arrangement of the Periodic Table.	a. Determine the trends of the following: • Number of valence electrons • Types of ions formed by representative elements • Location of metals, nonmetals, and metalloids • Phases at room temperature b. Use the Periodic Table to predict the above properties for representative elements.	
		SPS5	Students will compare and contrast the phases of matter as they relate to atomic and molecular motion.	a. Compare and contrast the atomic/molecular motion of solids, liquids, gases and plasmas. b. Relate temperature, pressure, and volume of gases to the behavior of gases.	
		SPS6	Students will investigate the properties of solutions.	a. Describe solutions in terms of • solute/solvent • conductivity • concentration b. Observe factors affecting the rate a solute dissolves in a specific solvent. c. Demonstrate that solubility is related to temperature by constructing a solubility curve. d. Compare and contrast the components and properties of acids and bases. e. Determine whether common household substances are acidic, basic, or neutral.	

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	**Physical Science**	SPS7	Students will relate transformations and flow of energy within a system.	a. Identify energy transformations within a system (e.g., lighting of a match). b. Investigate molecular motion as it relates to thermal energy changes in terms of conduction, convection, and radiation. c. Determine the heat capacity of a substance using mass, specific heat, and temperature.	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy
		SPS8	Students will determine relationships among force, mass, and motion.	a. Calculate velocity and acceleration. b. Apply Newton's three laws to everyday situations by explaining the following: • Inertia • Relationship between force, mass and acceleration • Equal and opposite forces c. Relate falling objects to gravitational force. d. Explain the difference in mass and weight. e. Calculate amounts of work and mechanical advantage using simple machines.	
		SPS9	Students will investigate the properties of waves.	a. Recognize that all waves transfer energy. b. Relate frequency and wavelength to the energy of different types of electromagnetic waves and mechanical waves. c. Compare and contrast the characteristics of electromagnetic and mechanical (sound) waves. d. Investigate the phenomena of reflection, refraction, interference, and diffraction. e. Relate the speed of sound to different mediums. f. Explain the Doppler effect in terms of everyday interactions.	

Content Area	Science Strand	Standard	Standard Description	Element	Characteristics of Science
Science	Physical Science	SPS10	Students will investigate the properties of electricity and magnetism.	a. Investigate static electricity in terms of • friction • induction • conduction b. Explain the flow of electrons in terms of • alternating and direct current. • the relationship among voltage, resistance and current. • simple series and parallel circuits. c. Investigate applications of magnetism and/or its relationship to the movement of electrical charge as it relates to • electromagnets • simple motors • permanent magnets	**A co-requisite Characteristic of Science standard must be addressed as part of the task on at least one piece of evidence submitted for the science entry.** Please select one item from the list below: – Records investigations clearly and accurately – Uses scientific tools – Interprets graphs, tables, and charts – Writes clearly – Uses proper units – Organizes data into graphs, tables, and charts – Analyzes scientific data via calculations and inference – Uses models – Asks quality questions – Uses technology – Uses safety techniques – Recognizes the importance of explaining data with precision and accuracy

Content Area	Social Studies Strand	Standard	Standard Description	Element
Social Studies	**U.S. History**	SSUSH1	The student will describe European settlement in North America during the 17th century.	a. Explain Virginia's development; include the Virginia Company, tobacco cultivation, relationships with Native Americans such as Powhatan, development of the House of Burgesses, Bacon's Rebellion, and the development of slavery.
				b. Describe the settlement of New England; include religious reasons, relations with Native Americans (e.g., King Phillip's War), the establishment of town meetings and development of a legislature, religious tensions that led to the founding of Rhode Island, the half-way covenant, Salem Witch Trials, and the loss of the Massachusetts charter and the transition to a royal colony.
				c. Explain the development of the mid-Atlantic colonies; include the Dutch settlement of New Amsterdam and subsequent English takeover, and the settlement of Pennsylvania.
				d. Explain the reasons for French settlement of Quebec.
				e. Analyze the impact of location and place on colonial settlement, transportation, and economic development; include the southern, middle, and New England colonies.
		SSUSH2	The student will trace the ways that the economy and society of British North America developed.	a. Explain the development of mercantilism and the trans-Atlantic trade.
				b. Describe the Middle Passage, growth of the African population, and African-American culture.
				c. Identify Benjamin Franklin as a symbol of social mobility and individualism.
				d. Explain the significance of the Great Awakening.
		SSUSH3	The student will explain the primary causes of the American Revolution.	a. Explain how the end of Anglo-French imperial competition as seen in the French and Indian War and the 1763 Treaty of Paris laid the groundwork for the American Revolution.
				b. Explain colonial response to such British actions as the Proclamation of 1763, the Stamp Act, and the Intolerable Acts as seen in Sons and Daughters of Liberty and Committees of Correspondence.
				c. Explain the importance of Thomas Paine's *Common Sense* to the movement for independence.
		SSUSH4	The student will identify the ideological, military, and diplomatic aspects of the American Revolution.	a. Explain the language, organization, and intellectual sources of the Declaration of Independence; include the writing of John Locke and the role of Thomas Jefferson.
				b. Explain the reason for and significance of the French alliance and foreign assistance and the roles of Benjamin Franklin and the Marquis de Lafayette.
				c. Analyze George Washington as a military leader; include the creation of a professional military and the life of a common soldier, and describe the significance of the crossing of the Delaware River and Valley Forge.
				d. Explain the role of geography at the Battle of Yorktown, the role of Lord Cornwallis, and the Treaty of Paris, 1783.

Content Area	Social Studies Strand	Standard	Standard Description	Element
Social Studies	**U.S. History**	SSUSH5	The student will explain specific events and key ideas that brought about the adoption and implementation of the United States Constitution.	a. Explain how weaknesses in the Articles of Confederation and Daniel Shays' Rebellion led to a call for a stronger central government.
				b. Evaluate the major arguments of the anti-Federalists and Federalists during the debate on ratification of the Constitution as put forth in The Federalist concerning form of government, factions, checks and balances, and the power of the executive, including the roles of Alexander Hamilton and James Madison.
				c. Explain the key features of the Constitution, specifically the Great Compromise, separation of powers (influence of Montesquieu), limited government, and the issue of slavery.
				d. Analyze how the Bill of Rights serves as a protector of individual and states' rights.
				e. Explain the importance of the Presidencies of George Washington and John Adams; include the Whiskey Rebellion, non-intervention in Europe, and the development of political parties (Alexander Hamilton).
		SSUSH6	The student will analyze the impact of territorial expansion and population growth and the impact of this growth in the early decades of the new nation.	a. Explain the Northwest Ordinance's importance in the westward migration of Americans, and on slavery, public education, and the addition of new states.
				b. Describe Jefferson's diplomacy in obtaining the Louisiana Purchase from France and the territory's exploration by Lewis and Clark.
				c. Explain major reasons for the War of 1812 and the war's significance on the development of a national identity.
				d. Describe the construction of the Erie Canal, the rise of New York City, and the development of the nation's infrastructure.
				e. Describe the reasons for and importance of the Monroe Doctrine.
		SSUSH7	Students will explain the process of economic growth, its regional and national impact in the first half of the 19th century, and the different responses to it.	a. Explain the impact of the Industrial Revolution as seen in Eli Whitney's invention of the cotton gin and his development of interchangeable parts for muskets.
				b. Describe the westward growth of the United States; include the emerging concept of Manifest Destiny.
				c. Describe reform movements, specifically temperance, abolitionism, and public school.
				d. Explain women's efforts to gain suffrage; include Elizabeth Cady Stanton and the Seneca Falls Conference.
				e. Explain Jacksonian Democracy, expanding suffrage, the rise of popular political culture, and the development of American nationalism.

Content Area	Social Studies Strand	Standard	Standard Description	Element
Social Studies	**U.S. History**	SSUSH8	The student will explain the relationship between growing north-south divisions and westward expansion.	a. Explain how slavery became a significant issue in American politics; include the slave rebellion of Nat Turner and the rise of abolitionism (William Lloyd Garrison, Frederick Douglass, and the Grimke sisters).
				b. Explain the Missouri Compromise and the issue of slavery in western states and territories.
				c. Describe the Nullification Crisis and the emergence of states' rights ideology; include the role of John C. Calhoun and development of sectionalism.
				d. Describe the war with Mexico and the Wilmot Proviso.
				e. Explain how the Compromise of 1850 arose out of territorial expansion and population growth.
		SSUSH9	The student will identify key events, issues, and individuals relating to the causes, course, and consequences of the Civil War.	a. Explain the Kansas-Nebraska Act, the failure of popular sovereignty, Dred Scott case, and John Brown's Raid.
				b. Describe President Lincoln's efforts to preserve the Union as seen in his second inaugural address and the Gettysburg speech and in his use of emergency powers, such as his decision to suspend *habeas corpus*.
				c. Describe the roles of Ulysses Grant, Robert E. Lee, "Stonewall" Jackson, William T. Sherman, and Jefferson Davis.
				d. Explain the importance of Fort Sumter, Antietam, Vicksburg, Gettysburg, and the Battle for Atlanta and the impact of geography on these battles.
				e. Describe the significance of the Emancipation Proclamation.
				f. Explain the importance of the growing economic disparity between the North and the South through an examination of population, functioning railroads, and industrial output.
		SSUSH10	The student will identify legal, political, and social dimensions of Reconstruction.	a. Compare and contrast Presidential Reconstruction with Radical Republican Reconstruction.
				b. Explain efforts to redistribute land in the South among the former slaves and provide advanced education (Morehouse College) and describe the role of the Freedmen's Bureau.
				c. Describe the significance of the 13th, 14th, and 15th Amendments.
				d. Explain Black Codes, the Ku Klux Klan, and other forms of resistance to racial equality during Reconstruction.
				e. Explain the impeachment of Andrew Johnson in relationship to Reconstruction.
				f. Analyze how the presidential election of 1876 and the subsequent compromise of 1877 marked the end of Reconstruction.

Content Area	Social Studies Strand	Standard	Standard Description	Element
Social Studies	**U.S. History**	SSUSH11	The student will describe the economic, social, and geographic impact of the growth of big business and technological innovations after Reconstruction.	a. Explain the impact of the railroads on other industries, such as steel, and on the organization of big business.
				b. Describe the impact of the railroads in the development of the West; include the transcontinental railroad, and the use of Chinese labor.
				c. Identify John D. Rockefeller and the Standard Oil Company and the rise of trusts and monopolies.
				d. Describe the inventions of Thomas Edison; include the electric light bulb, motion pictures, and the phonograph, and their impact on American life.
		SSUSH12	The student will analyze important consequences of American industrial growth.	a. Describe Ellis Island, the change in immigrants' origins to southern and eastern Europe and the impact of this change on urban America.
				b. Identify the American Federation of Labor and Samuel Gompers.
				c. Describe the growth of the western population and its impact on Native Americans with reference to Sitting Bull and Wounded Knee.
				d. Describe the 1894 Pullman strike as an example of industrial unrest.
		SSUSH13	The student will identify major efforts to reform American society and politics in the Progressive Era.	a. Explain Upton Sinclair's *The Jungle* and federal oversight of the meatpacking industry.
				b. Identify Jane Addams and Hull House and describe the role of women in reform movements.
				c. Describe the rise of Jim Crow, Plessy v. Ferguson, and the emergence of the NAACP.
				d. Explain Ida Tarbell's role as a muckraker.
				e. Describe the significance of progressive reforms such as the initiative, recall, and referendum; direct election of senators; reform of labor laws; and efforts to improve living conditions for the poor in cities.
				f. Describe the conservation movement and the development of national parks and forests; include the role of Theodore Roosevelt.
		SSUSH14	The student will explain America's evolving relationship with the world at the turn of the twentieth century.	a. Explain the Chinese Exclusion Act of 1882 and anti-Asian immigration sentiment on the west coast.
				b. Describe the Spanish-American War, the war in the Philippines, and the debate over American expansionism.
				c. Explain U.S. involvement in Latin America, as reflected by the Roosevelt Corollary to the Monroe Doctrine and the creation of the Panama Canal.

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Social Studies	**U.S. History**	SSUSH15	The student will analyze the origins and impact of U.S. involvement in World War I.	a. Describe the movement from U.S. neutrality to engagement in World War I, with reference to unrestricted submarine warfare.
				b. Explain the domestic impact of World War I, as reflected by the origins of the Great Migration, the Espionage Act, and socialist Eugene Debs.
				c. Explain Wilson's Fourteen Points and the proposed League of Nations.
				d. Describe passage of the Eighteenth Amendment, establishing Prohibition, and the Nineteenth Amendment, establishing woman suffrage.
		SSUSH16	The student will identify key developments in the aftermath of WWI.	a. Explain how rising communism and socialism in the United States led to the Red Scare and immigrant restriction.
				b. Identify Henry Ford, mass production, and the automobile.
				c. Describe the impact of radio and the movies.
				d. Describe modern forms of cultural expression; include Louis Armstrong and the origins of jazz, Langston Hughes and the Harlem Renaissance, Irving Berlin, and Tin Pan Alley.
		SSUSH17	The student will analyze the causes and consequences of the Great Depression.	a. Describe the causes, including overproduction, underconsumption, and stock market speculation that led to the stock market crash of 1929 and the Great Depression.
				b. Explain factors (include over-farming and climate) that led to the Dust Bowl and the resulting movement and migration west.
				c. Explain the social and political impact of widespread unemployment that resulted in developments such as Hoovervilles.
		SSUSH18	The student will describe Franklin Roosevelt's New Deal as a response to the depression and compare the ways governmental programs aided those in need.	a. Describe the creation of the Tennessee Valley Authority as a works program and as an effort to control the environment.
				b. Explain the Wagner Act and the rise of industrial unionism.
				c. Explain the passage of the Social Security Act as a part of the second New Deal.
				d. Identify Eleanor Roosevelt as a symbol of social progress and women's activism.
				e. Identify the political challenges to Roosevelt's domestic and international leadership; include the role of Huey Long, the "court packing bill," and the Neutrality Act.

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Social Studies	**U.S. History**	SSUSH19	The student will identify the origins, major developments, and the domestic impact of World War II, especially the growth of the federal government.	a. Explain A. Philip Randolph's proposed march on Washington, D.C., and President Franklin D. Roosevelt's response.
				b. Explain the Japanese attack on Pearl Harbor and the internment of Japanese-Americans, German-Americans, and Italian-Americans.
				c. Explain major events; include the lend-lease program, the Battle of Midway, D-Day, and the fall of Berlin.
				d. Describe war mobilization, as indicated by rationing, war-time conversion, and the role of women in war industries.
				e. Describe the Manhattan Project at Los Alamos and the scientific, economic, and military implications of developing the atomic bomb.
				f. Compare the geographic locations of the European Theater and the Pacific Theater and the difficulties the U.S. faced in delivering weapons, food, and medical supplies to troops.
		SSUSH20	The student will analyze the domestic and international impact of the Cold War on the United States.	a. Describe the creation of the Marshall Plan, U.S. commitment to Europe, the Truman Doctrine, and the origins and implications of the containment policy.
				b. Explain the impact of the new communist regime in China and the outbreak of the Korean War and how these events contributed to the rise of Senator Joseph McCarthy.
				c. Describe the Cuban Revolution, the Bay of Pigs, and the Cuban missile crisis.
				d. Describe the Vietnam War, the Tet Offensive, and growing opposition to the war.
				e. Explain the role of geography on the U.S. containment policy, the Korean War, the Bay of Pigs, the Cuban missile crisis, and the Vietnam War.
		SSUSH21	The student will explain the impact of technological development and economic growth on the United States, 1945–1975.	a. Describe the baby boom and its impact as shown by Levittown and the Interstate Highway Act.
				b. Describe the impact television has had on American culture; include the presidential debates (Kennedy/Nixon, 1960) and news coverage of the Civil Rights Movement.
				c. Analyze the impact of technology on American life; include the development of the personal computer and the expanded use of air conditioning.
				d. Describe the impact of competition with the USSR as evidenced by the launch of Sputnik I and President Eisenhower's actions.

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Social Studies	**U.S. History**	SSUSH22	The student will identify dimensions of the Civil Rights Movement, 1945–1970.	a. Explain the importance of President Truman's order to integrate the U.S. military and the federal government.
				b. Identify Jackie Robinson and the integration of baseball.
				c. Explain Brown v. Board of Education and efforts to resist the decision.
				d. Describe the significance of Martin Luther King, Jr.'s Letter from a Birmingham Jail and his I Have a Dream Speech.
				e. Describe the causes and consequences of the Civil Rights Act of 1964 and the Voting Rights Act of 1965.
		SSUSH23	The student will describe and assess the impact of political developments between 1945 and 1970.	a. Describe the Warren Court and the expansion of individual rights as seen in the Miranda decision.
				b. Describe the political impact of the assassination of President John F. Kennedy; include the impact on civil rights legislation.
				c. Explain Lyndon Johnson's Great Society; include the establishment of Medicare.
				d. Describe the social and political turmoil of 1968; include the assassinations of Martin Luther King, Jr. and Robert F. Kennedy, and the events surrounding the Democratic National Convention.
		SSUSH24	The student will analyze the impact of social change movements and organizations of the 1960s.	a. Compare and contrast the Student Non-Violent Coordinating Committee (SNCC) and the Southern Christian Leadership Conference (SCLC) tactics; include sit-ins, freedom rides, and changing composition.
				b. Describe the National Organization of Women and the origins and goals of the modern women's movement.
				c. Analyze the anti-Vietnam War movement.
				d. Analyze César Chávez and the United Farm Workers' movement.
				e. Explain the importance of Rachel Carson's *Silent Spring* and the resulting developments; include Earth Day, the creation of the Environmental Protection Agency (EPA), and the modern environmental movement.
				f. Describe the rise of the conservative movement as seen in the presidential candidacy of Barry Goldwater (1964) and the election of Richard M. Nixon (1968).

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Social Studies	U.S. History	SSUSH25	The student will describe changes in national politics since 1968.	a. Describe President Richard M. Nixon's opening of China, his resignation due to the Watergate scandal, changing attitudes toward government, and the Presidency of Gerald Ford.
				b. Explain the impact of Supreme Court decisions on ideas about civil liberties and civil rights; include such decisions as Roe v. Wade (1973) and the Bakke decision on affirmative action.
				c. Explain the Carter administration's efforts in the Middle East; include the Camp David Accords, his response to the 1979 Iranian Revolution, and the Iranian hostage crisis.
				d. Describe domestic and international events of Ronald Reagan's presidency; include Reaganomics, the Iran-contra scandal, and the collapse of the Soviet Union.
				e. Explain the relationship between Congress and President Bill Clinton; include the North American Free Trade Agreement and his impeachment and acquittal.
				f. Analyze the 2000 presidential election and its outcome, emphasizing the role of the electoral college.
				g. Analyze the response of President George W. Bush to the attacks of September 11, 2001, on the United States, the war against terrorism, and the subsequent American interventions in Afghanistan and Iraq.

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Social Studies	**Fundamental Economic Concepts**	SSEF1	The student will explain why limited productive resources and unlimited wants result in scarcity, opportunity costs, and trade offs for individuals, businesses, and governments.	a. Define scarcity as a basic condition that exists when unlimited wants exceed limited productive resources.
				b. Define and give examples of productive resources (factors of production) (e.g., land (natural), labor (human), capital (capital goods), entrepreneurship).
				c. List a variety of strategies for allocating scarce resources.
				d. Define opportunity cost as the next best alternative given up when individuals, businesses, and governments confront scarcity by making choices.
		SSEF2	The student will give examples of how rational decision making entails comparing the marginal benefits and the marginal costs of an action.	a. Illustrate by means of a production possibilities curve the trade offs between two options.
				b. Explain that rational decisions occur when the marginal benefits of an action equal or exceed the marginal costs.
		SSEF3	The student will explain how specialization and voluntary exchange between buyers and sellers increase the satisfaction of both parties.	a. Give examples of how individuals and businesses specialize.
				b. Explain that both parties gain as a result of voluntary, non-fraudulent exchange.
		SSEF4	The student will compare and contrast different economic systems and explain how they answer the three basic economic questions of what to produce, how to produce, and for whom to produce.	a. Compare command, market, and mixed economic systems with regard to private ownership, profit motive, consumer sovereignty, competition, and government regulation.
				b. Evaluate how well each type of system answers the three economic questions and meets the broad social and economic goals of freedom, security, equity, growth, efficiency, and stability.
		SSEF5	The student will describe the roles of government in a market economy.	a. Explain why government provides public goods and services, redistributes income, protects property rights, and resolves market failures.
				b. Give examples of government regulation and deregulation and their effects on consumers and producers.
		SSEF6	The student will explain how productivity, economic growth, and future standards of living are influenced by investment in factories, machinery, new technology, and the health, education, and training of people.	a. Define productivity as the relationship of inputs to outputs.
				b. Give illustrations of investment in equipment and technology and explain their relationship to economic growth.
				c. Give examples of how investment in education can lead to a higher standard of living.

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Social Studies	**Microeconomic Concepts**	SSEMI1	The student will describe how households, businesses, and governments are interdependent and interact through flows of goods, services, and money.	a. Illustrate by means of a circular flow diagram, the Product market; the Resource (factor) market; the real flow of goods and services between and among businesses, households, and government; and the flow of money.
				b. Explain the role of money as a medium of exchange.
		SSEMI2	The student will explain how the Law of Demand, the Law of Supply, prices, and profits work to determine production and distribution in a market economy.	a. Define the Law of Supply and the Law of Demand.
				b. Describe the role of buyers and sellers in determining market clearing price.
				c. Illustrate on a graph how supply and demand determine equilibrium price and quantity.
				d. Explain how prices serve as incentives in a market economy.
		SSEMI3	The student will explain how markets, prices, and competition influence economic behavior.	a. Identify and illustrate on a graph factors that cause changes in market supply and demand.
				b. Explain and illustrate on a graph how price floors create surpluses and price ceilings create shortages.
				c. Define price elasticity of demand and supply.
		SSEMI4	The student will explain the organization and role of business and analyze the four types of market structures in the U.S. economy.	a. Compare and contrast three forms of business organization—sole proprietorship, partnership, and corporation.
				b. Explain the role of profit as an incentive for entrepreneurs.
				c. Identify the basic characteristics of monopoly, oligopoly, monopolistic competition, and pure competition.

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Social Studies	**Macroeconomic Concepts**	SSEMA1	The student will illustrate the means by which economic activity is measured.	a. Explain that overall levels of income, employment, and prices are determined by the spending and production decisions of households, businesses, government, and net exports.
				b. Define Gross Domestic Product (GDP), economic growth, unemployment, Consumer Price Index (CPI), inflation, stagflation, and aggregate supply and aggregate demand.
				c. Explain how economic growth, inflation, and unemployment are calculated.
				d. Identify structural, cyclical, and frictional unemployment.
				e. Define the stages of the business cycle; include peak, contraction, trough, recovery, expansion, as well as recession and depression.
				f. Describe the difference between the national debt and government deficits.
		SSEMA2	The student will explain the role and functions of the Federal Reserve System.	a. Describe the organization of the Federal Reserve System.
				b. Define monetary policy.
				c. Describe how the Federal Reserve uses the tools of monetary policy to promote price stability, full employment, and economic growth.
		SSEMA3	The student will explain how the government uses fiscal policy to promote price stability, full employment, and economic growth.	a. Define fiscal policy.
				b. Explain the government's taxing and spending decisions.

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Social Studies	**International Economics**	SSEIN1	The student will explain why individuals, businesses, and governments trade goods and services.	a. Define and distinguish between absolute advantage and comparative advantage.
				b. Explain that most trade takes place because of comparative advantage in the production of a good or service.
				c. Explain the difference between balance of trade and balance of payments.
		SSEIN2	The student will explain why countries sometimes erect trade barriers and sometimes advocate free trade.	a. Define trade barriers as tariffs, quotas, embargoes, standards, and subsidies.
				b. Identify costs and benefits of trade barriers over time.
				c. List specific examples of trade barriers.
				d. List specific examples of trading blocks such as the EU, NAFTA, and ASEAN.
				e. Evaluate arguments for and against free trade.
		SSEIN3	The student will explain how changes in exchange rates can have an impact on the purchasing power of individuals in the United States and in other countries.	a. Define exchange rate as the price of one nation's currency in terms of another nation's currency.
				b. Locate information on exchange rates.
				c. Interpret exchange rate tables.
				d. Explain why, when exchange rates change, some groups benefit and others lose.

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Social Studies	**Personal Finance Economics**	SSEPF1	The student will apply rational decision making to personal spending and saving choices.	a. Explain that people respond to positive and negative incentives in predictable ways.
				b. Use a rational decision making model to select one option over another.
				c. Create a savings or financial investment plan for a future goal.
		SSEPF2	The student will explain that banks and other financial institutions are businesses that channel funds from savers to investors.	a. Compare services offered by different financial institutions.
				b. Explain reasons for the spread between interest charged and interest earned.
				c. Give examples of the direct relationship between risk and return.
				d. Evaluate a variety of savings and investment options; include stocks, bonds, and mutual funds.
		SSEPF3	The student will explain how changes in monetary and fiscal policy can have an impact on an individual's spending and saving choices.	a. Give examples of who benefits and who loses from inflation.
				b. Define progressive, regressive, and proportional taxes.
				c. Explain how an increase in sales tax affects different income groups.
		SSEPF4	The student will evaluate the costs and benefits of using credit.	a. List factors that affect credit worthiness.
				b. Compare interest rates on loans and credit cards from different institutions.
				c. Explain the difference between simple and compound interest rates.
		SSEPF5	The student will describe how insurance and other risk-management strategies protect against financial loss.	a. List various types of insurance such as automobile, health, life, disability, and property.
				b. Explain the costs and benefits associated with different types of insurance; include deductibles, premiums, shared liability, and asset protection.
		SSEPF6	The student will describe how the earnings of workers are determined in the marketplace.	a. Identify skills that are required to be successful in the workplace.
				b. Explain the significance of investment in education, training, and skill development.