Eighth Grade Priority Standards

READING: Literature

RL1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences draw from the text.

RL4 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.

RL10 By the end of te year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently.

READING: Informational Text

RI1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences draw from the text. *

RI4 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 choice on meaning and tone, including analogies or allusions to other texts.

RI9 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.

WRITING

W1 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.

W3 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.

W9 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,

SPEAKING AND LISTENING

SL1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade topics, texts, and issues, building on others' ideas and expressing their own clearly.

LANGUAGE

L4	Vocabulary Acquisition and Use: 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. B. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede). 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)..
L5	Demonstrate understanding of figurative language,word relstionships, and nuances in word meanings.
L6	Acquire and use accurately grade-appropriate general academics and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

MATH: Geometry

G3	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
G4	Understand congruence and similarity using physical models, transparencies, or geometry software. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
G5	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.
G7	Understand and apply the Pythagorean Theorem. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
G9	Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. Know the formulas for the volume of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

MATH: Number Systems

NS1	Know that there are numbers that are not rational, and approximate them by rational numbers. 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.

MATH: Expression and Equations

EE1	Work with radicals and integer exponents. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{(-5)} = 3^{(-3)} = 1/(3^3) = 1/27$.
EE4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities. Interpret scientific notation that has been generated by technology.

EE5	Understand the connections between proportional relationships, lines, and linear equations. 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.
EE7	Analyze and solve linear equations and pairs of simultaneous linear equations. Solve linear equations in one variable.
EE8	Analyze and solve linear equations and pairs of simultaneous linear equations. Analyze and solve pairs of simultaneous linear equations.

MATH: Functions

F4	Use functions to model relationships between quantities. 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.

MATH: Statistic and Probability

SP1	Investigate patterns of association in bivariate data. 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.

SOCIAL STUDIES: Geography

G1	Use mapping and graphing to represent and analyze spatial patterns of differnent environmental and cultural charateristics.
G2	Compare and contrast the cultural and environmental characteristics of different places or regions.

SOCIAL STUDIES: History

H1	Analyze connections among events and developments in broader historical contexts.

SOCIAL STUDIES: Civics

CV1	Describe the roles of political, civil, and economic organizations in shaping peoples lives.
CV6	Analyze the purposes, implementations, and consequences of public policies in historic and contemporary settings.

SOCIAL STUDIES: Inquiry Skills

IS4	Determine the value of sources by evaluating their relevance and intended use.

SCIENCE:

MS-LS-2.1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem
MS-LS-2.2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS-2.3	Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem
MS-LS-2.4	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
MS-LS-2.5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
MS-LS-1.1	Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.

MS-LS-1.2 Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.

MS-LS-1.6 Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.

MS-LS-1.7 Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.

MS-LS-3.1 Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

MS-LS-3.2 Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

MS-LS-1.4 Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-LS-1.5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS-4.1 Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

MS-LS-4.2 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

MS-LS-4.3 Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.

MS-LS-4.4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

MS-LS-4.5 Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.

MS-LS-4.6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.