Learning Targets and Grades

Grading at STEM School Chattanooga follows a standards-based grading approach. What that means is that grades for a student are tied directly to a specific standard required for learning by the state of Tennessee. For our school, we use the terminology learning targets for each of these specific standards.

Student grades come from performance assessments where students show their level of mastery. We call these performance assessments our summative assessments and they include tests/quizzes, projects, and products. Student mastery levels are broken down as follows, and each number grade reflects a different level of mastery.

- No Mastery (0): Assessment is missing or incomplete. Score of 0.
- Below Basic (BB): Student level of understanding is not acceptable. Score of 50.
- Basic (BA): Student level of understanding shows basic knowledge of the material. Score of 60.
- Proficient (PR): Student level of understanding shows both knowledge and comprehension of the material, and student is prepared for ongoing studies in STEM. Score of 80.
- Advanced (AD): Student level of understanding shows not only does the student comprehend the material, but the student is able to apply the content in a real world setting and create new ideas using the content. Score of 100.

Student grades are posted online only. We do not send home paper copies. All parents and students can access their grades online through Powerschool. If you are a student and/or parent and do not have (or have lost) your login information, please contact the school and we can assist you in this process.

In each individual course, the overall student grade for a course is made up of individual student grades throughout the year. There will be two categories in the gradebook for use.

- Learning Targets (LT) - all learning target grades will go in this category with a grade of 0, BB, BA, PR, or AD [*note: BA grades are earned from online work in Edgenuity*]
- PBL - all PBL (project based learning) team grades will go in this category with a grade of 0, BB, PR, or AD

Again, all students have an overall grade for each course. This overall grade will determine student GPA (grade point average) at the <u>end of the school year</u>. Students' grades run the entire year. No GPAs are calculated during the middle of the school year.

Students have multiple courses listed in Powerschool with grades. In order to earn credit in each of these courses, ALL individual learning target grades MUST be at a level of 70 or above. Students have until the end of the course timeframe to make sure this is the case. A student may have an overall average higher than a 70, but until all individual learning target grades are at least a 70, the student will not earn credit for the course. In other words, it is not acceptable for any learning target grade to stay at Below Basic.

ALL grades are improvable. If a student earns a grade of Basic on a particular learning target, that student can improve that grade if they are able to demonstrate a higher level of mastery. Students will have the opportunity for re-assessment during Extended Remediation (ER) Week at the end of each quarter. Please note that the student is responsible to seek out the teacher and devise a plan to improve.

Learning targets for courses at the STEM School are listed on the next few pages by content area, course, and topics. Learning targets are *italicized*.

Math

Math content is very dependent on the particular course. However, when content overlaps, the complexity of the content is deeper in the higher-level math course. Learning targets in math will have at least one grade recorded in the PowerSchool gradebook during the school year.

Algebra I (*11 learning targets*)

- *LT1 - Equations and Inequalities: I can solve equations and inequalities, including absolute value equations*
- *LT2 - Systems: Equations and Inequalities: I can solve equations and inequalities.*
- *LT3 - Evaluate Functions: I can identify , evaluate and interpret functions in context.*
- *LT4 - Linear Functions: I can write, solve and graph linear functions.*
- *LT5 - Exponential Functions: I can write, solve and graph exponential functions.*
- *LT6 - Sequences: I can represent patterns using sequences.*
- *LT7 - Polynomials: I can perform arithmetic operations and identify zeros of polynomials.*
- *LT8 - Structure of Expressions: I can rewrite functions to highlight specific properties.*
- *LT9 - Quadratic Functions: I can write, solve and graph quadratic functions.*
- *LT10 - Descriptive Statistics: I can use statistics to describe a set of data.*
- *LT11 - Prerequisite Skills*

Geometry (*11 learning targets*)

- *LT1 - Lines and Angles: I can use properties of lines and angles to solve problems.*
- *LT2 - Constructions: I can make formal geometric constructions.*
- *LT3 - Coordinate Geometry: I can use a coordinate plane to solve problems.*
- *LT4 - Triangles: I can use properties of triangles to solve problems.*
- *LT5 - Congruence: I can use properties of congruence to solve problems.*
- *LT6 - Transformations: I can perform transformations in the plane*
- *LT7 - Quadrilaterals: I can use properties of quadrilaterals to solve problems.*
- *LT8 - Similarity: I can use proportions and theorems to solve problems.*
- *LT9 - Trigonometry: I can use trigonometric ratios to solve problems involving right triangles.*
- *LT10 - Three Dimensional Figures: I can expand geometric concepts to three dimensions.*
- *LT11 - Circles: I can use properties of circles to solve problems.*
- *LT12 - Prerequisite Skills*

Algebra II (*15 learning targets*)

- *LT1 - Quadratic Equations and Inequalities: I can solve quadratic equations including those with complex solutions*
- *LT2 - Quadratic Functions : I can graph and interpret quadratic functions and inequalities based on key features including write quadratic functions in vertex and standard form.*
- *LT3 - Systems of Equations: I can solve systems of linear and nonlinear equations using a variety of methods.*
- *LT4- Functions: I can identify function transformations and find function inverses.*
- *LT5 - Operations with Polynomials: I can add, subtract, multiply, and divide polynomial expressions.*
- *LT6 - Solving Polynomial Equations: I can solve polynomial equations by factoring and graphing and apply the remainder theorem.*

- *LT7 - Polynomial Functions and Graphs: I can write a polynomial function based on a graph and determine important features of a graph given a polynomial function.*
- *LT8 - Radical Expressions and Rational Exponents: I can simplify radical expressions and solve radical equations using both radical form and rational exponents.*
- *LT9 - Simplifying Rational Expressions: I can simplify rational expressions and solve rational equations.*
- *LT10 - Exponential and Logarithmic Equations: I can solve exponential and logarithmic equations and use the properties of exponents to write equivalent exponential expressions.*
- *LT11 - Exponential and Logarithmic Functions and Graphs: I can write an exponential function based on given information and I can identify key features of exponential functions.*
- *LT12 - Sequences and Series: I can write and use explicit and recursive formulas for finite geometric and arithmetic sequences and find the sum of a finite geometric series.*
- *LT13 - Trigonometry and the Unit Circle: I can use the properties of the unit circle along with trigonometry to solve problems.*
- *LT14 - Statistics: I can use the normal curve and the empirical rule to estimate population percentages. I can differentiate between sample surveys, experiments, and observational studies and use results from a sample survey to answer questions.*
- *LT15 - Probability: I can calculate the probabilities of events involving unions, intersections, complements, conditional probability. I can use the addition rule to calculate the probability of a series of events.*

Precalculus (*13 learning targets*)

- *LT1 – Functions 1: I can solve, graph, and find polynomials functions, and rational functions.*
- *LT2 – Functions 2: I can solve, graph, and find composite functions, exponential functions and radical functions.*
- *LT3 - Matrices: I can perform operations on matrices and use matrices in applications.*
- *LT4 - Unit Circle: I can extend the domain of trigonometric functions using the unit circle.*
- *LT5 - Model with Trig: I can model periodic phenomena with trigonometric functions.*
- *LT6 - Trig Equations: I can use trigonometry to solve problems.*
- *LT7 - Trig Identities: I can apply trigonometric identities to rewrite expressions and solve equations.*
- *LT8 - Model With Vectors: I can represent and model with vector quantities.*
- *LT9 - Vector Manipulations: I can understand the graphic representation of vectors and vector arithmetics.*
- *LT10 - Complex Arithmetic: I can perform complex number arithmetic and understand the representation on the complex plane.*
- *LT11 - Polar Form of Complex Numbers: I can use the polar form of complex numbers to find roots and multiply and divide complex numbers.*
- *LT12 - Conic Sections: I can understand the properties of conic sections and apply them to model real-world phenomena.*
- *LT13 - Sequences and Series: I can understand and use sequences and series.*

Science

Science content varies greatly from one science course to another and does not overlap. Learning targets in science will have at least one grade recorded in the PowerSchool gradebook during the school year.

Physical World Concepts (*14 learning targets*)

- *LT1: I can utilize quantitative measurements in describing distances and time with the metric system and scientific notation*
- *LT2: I can investigate how scientists describe and quantify the relationship between different variables (distance vs. time) using graphs and equations*
- *LT3: I can calculate momentum and impulse and engineer a device to minimize impulse on a system during a collision.*
- *LT4: I can define, describe and calculate kinetic energy, potential energy, work and power. Use conservation of energy to predict the behavior of a system where energy is being transferred.*
- *LT5: I can use equations to calculate the vector acceleration of an object.*
- *LT6: I can analyze and calculate the relationship between forces using force diagrams and predict the motion of an object using Newton's 3 Laws of Motion.*
- *LT7: I can use Newton's Laws of Motion in 2 dimensions to describe projectile motion for an object experiencing acceleration in one dimension only.*
- *LT8: I can use Newton's Law of Universal Gravitation to calculate and model the gravitational dynamics around celestial bodies.*
- *LT9: I can use Archimedes', Pascal's, and Bernoulli's Principles to describe the behavior of fluids.*
- *LT10: I can use the kinetic molecular theory to describe how energy is stored in systems and transferred from one system.*
- *LT11: I can describe and calculate the wavelength, frequency, period, amplitude and velocity of both longitudinal and transverse waves and describe how they propagate through a medium.*
- *LT12: I can investigate and describe properties of light and their real world applications (such as polarization, resonance, and the Doppler Effect)*
- *LT13: I can draw simple circuits and use Ohm's Law to calculate and describe the quantities of voltage, current and resistance in those circuits.*
- *LT14: I can model the Internal Structure of the Bohr Atom and use it to describe nuclear fission, fusion and radioactive decay.*

Chemistry (*13 learning targets*)

Matter, Atoms, and Bonds
- *LT1- I can explain the structure of an atom and the organization of the Periodic Table and use the organization to interpret table trends such as electronegativity, ionization energy, and atomic radius.*
- *LT2- I can diagram electron configurations and orbital notations of atoms and ions and I can summarize why elements emit and absorb characteristic frequencies of light.*
- *LT3- I can develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during nuclear decay processes.*
- *LT4- I can use criteria to write and name chemical formulas, identify and model the types of bonds in compounds, and prove how intermolecular forces impact bonding and properties of compounds.*
- *LT5- I can justify predictions of molecular polarity and geometry using electronegativity and Lewis electron-dot representations.*

Conservation of Mass and Energy in Reactions
- *LT6- I can use mathematical representations to support the claim that atoms, and therefore mass, are*

conserved in chemical reactions by writing balanced chemical equations.
- *LT7- I can compare and contrast patterns in chemical reactions to predict products and identify reaction types.*
- *LT8- I can use stoichiometry, balanced chemical equations, and Avogadro's number to qualitatively and quantitatively relate the molar ratio, molar masses, limiting and excess reagents, and percent yield of chemical reactions in order to predict the behavior of systems.*

Energy Influences States of Matter and Solutions
- *LT9- I can compare, contrast and diagram heat and temperature changes and energy flow to analyze and interpret phase diagrams and heating/cooling curves.*
- *LT10- I can analyze diagrams and mathematical representations of potential, thermal, and chemical energy changes to explain and defend the law of conservation of energy.*
- *LT11- I can manipulate variables to perform calculations for each of the gas laws and explain the influence of these variables on chemical behaviors.*
- *LT12- I can characterize solutions and mixtures by composition and concentration and design experiments to separate solutions and mixtures using various separation techniques.*
- *LT13- I can explain and demonstrate methods to increase the solubility and rate of formation of a solution.*

Biology (*18 learning targets*)

- *LT 1: I can distinguish between living and nonliving things, including viruses, by using accepted characteristics of life as evidence.*
- *LT 2: I can identify the relationship between chemistry and biology in regards to macromolecules, specifically proteins and enzymes.*
- *LT 3: I can describe the connection between the structure and function of cellular organelles, intercellular relationships, and living systems.*
- *LT 4: I can evaluate the types of cellular transport in relation to the structure and function of the plasma membrane, its macromolecule components, and the maintenance of homeostasis.*
- *LT 5: I can compare and contrast energy transformations that take place during photosynthesis and cellular respiration (including aerobic and anaerobic respiration).*
- *LT 6: I can identify the stages of the cell cycle, including mitosis, and the events necessary for creation of identical daughter cells.*
- *LT 7: I can describe how gametes are produced through meiosis and how genetic variations in populations are determined by sexual reproduction.*
- *LT 8: I can identify the structure and function of DNA/RNA, as well as the steps of DNA replication.*
- *LT 9: I can determine the role(s) DNA and RNA play in the process of protein synthesis and explain how the production of proteins is linked to the derivation of genetic traits/mutations.*
- *LT 10: I can predict genotypes and phenotypes of offspring based on mode of inheritance and parental data while utilizing Punnett squares, pedigrees, and karyotypes.*
- *LT 11: I can use evidence-based research to evaluate the pros and cons of ethical or controversial issues in biotechnology such as stem cell research, in-vitro fertilization, and GMOs.*
- *LT 12: I can use the modern classification system of living things to determine the phylogeny and relatedness of organisms based on DNA structure, amino acid sequences, comparative anatomy, and the fossil record and as evidence of the theory of evolution.*
- *LT 13: I can predict the change in population genetics of an ecosystem in relation to natural selection, random modification, isolation, allele frequencies, and natural disasters.*
- *LT 14: I can evaluate population dynamics of an ecosystem by analyzing competing factors, affecting factors, and disturbances.*

- *LT 15: I can describe the 4 biogeochemical cycles (water, nitrogen, carbon/oxygen, phosphorus), how the elements involved are converted into usable forms for humans, and how changes in cycles would alter ecosystems.*
- *LT 16: I can trace the flow of biomass and energy in an ecosystem and determine the amount of energy transfer from one trophic level to another in a food chain/web.*
- *LT 17: I can determine the dynamic equilibrium of an ecosystem through phases of ecological succession.*
- *LT 18: I can describe what impact I, and other humans, have on the environment in relation to climate change and biodiversity and make appropriate decisions to lower my carbon footprint.*

Scientific Research – Physics (*9 learning targets*)

Physics
- *LT1 - Interactions & Forces: I can accurately describe how objects and forces interact in the physical world.*
- *LT2 - Velocity, Acceleration & Force: I can calculate velocity, acceleration, and force in order to evaluate the relationships between each of these values.*
- *LT3 - Kinematics: I can describe an object's motion through kinematics or the geometry of motion.*
- *LT4 - Force Combinations: I can make decisions about how forces combine to have an overall net force on an object.*
- *LT5 - Horizontal & Vertical Forces: I can evaluate the difference between and the relationships between horizontal & vertical forces on an object.*
- *LT6 - Projectiles: I can calculate the values of projectile motion on moving objects.*
- *LT7 - Work & Energy: I can describe how to calculate work given a scenario and how it relates to energy expenditure.*

Process Skills
- *LT8 - Time Management*
- *LT9 - STEM Tenets (Networking, Expert Knowledge, Invent)*

Scientific Research – STEM-Based (*11 learning targets*)

Meta-Analysis
- *LT1 - Scientific Problem: I can research and write a scientific problem for a meta-analysis study.*
- *LT2 - Scientific Title: I can formulate a scientific title for a meta-analysis study.*
- *LT3 - Research Methods: I can clearly and concisely describe all of the methods used to collect information for a meta-analysis study.*
- *LT4 - Data & Analysis: I can distinguish between quantitative and qualitative data, and analyze the information to answer the scientific problem posed for a meta-analysis study.*
- *LT5 - Scientific Conclusion: I can accurately summarize the findings for a meta-analysis study.*
- *LT6 - Research & Citations: I can use APA citations to give proper credit to all resources used in a meta-analysis study.*
- *LT7 - Scientific Poster: I can construct a scientific presentation of a meta-analysis study given guidelines followed by the scientific community.*
- *LT8 - Scientific Poster Presentation: I can speak technically and share meta-analysis findings with any audience and accurately answer any posed questions.*
- *LT9 - Scientific Journal Article: I can scientifically write a journal article of a meta-analysis study given guidelines followed by the scientific community.*

Process Skills
- *LT10 - Time Management*
- *LT11 - STEM Tenets (Networking, Expert Knowledge, Invent)*

Language Arts

Language Arts content has the same learning targets from one grade level to the next. However, the complexity of the content is deeper and requirements for proficiency increase each time in the higher-level language arts course. Learning targets in language arts will have at least one grade recorded in the PowerSchool gradebook during the school year.

English I, English II (*16 learning targets*)

Reading/Analysis
- *LT01 - Inference & Evidence: I can analyze what a text says explicitly and draw inferences; cite the strongest, most compelling textual evidence to support conclusions.*
- *LT02 - Central Idea & Development: I can determine a central idea of a text and analyze its development; provide an objective or critical summary. Analyze how an author presents and develops key ideas and events to impact meaning.*
- *LT03 - Theme & Development: I can determine a theme or central idea of a text and analyze its development; provide an objective or critical summary. Analyze how complex characters, events, and ideas develop and interact over the course of a text to impact meaning.*
- *LT04 - Word Choice & Tone: I can determine the meaning of words and phrases as they are used in a text, analyze the cumulative impact of specific word choices on meaning and tone .*
- *LT05 - Structure & Purpose: I can analyze how an author's choices concerning text structure, plot structure, and/or time manipulation create effects. I can analyze how an author's ideas or claims are developed and refined and how point of view and/or author purpose shapes the content and style of diverse texts.*
- *LT06 - Topics & Arguments: I can determine an author's point of view or purpose and analyze how an author uses rhetoric to advance that point of view or purpose. I can evaluate the topic, subject, and/or theme in two diverse formats or media. I can evaluate how reasoning and evidence affects the argument and specific claims in a text.*
- *LT07 - Analyze Texts: I can analyze a variety of related literary and historical texts and evaluate how an author draws on, alludes to, or transforms source material to provide a deeper and more thorough interpretation of the text and for the way they address related topics, facts, and concepts.*

Writing
- *LT08 - Writing Arguments: I can write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning supported by relevant and sufficient evidence*
- *LT09 - Writing Expository/Informative: I can write informative/explanatory texts to analyze and convey complex ideas, concepts, and information clearly and accurately through the effective selection and organization of content.*
- *LT10 - Writing Narratives: I can write narrative fiction or literary nonfiction to convey experiences and/or events using effective techniques, well-chosen details, and well-structured event sequences.*
- *LT11 - Organization & Structure: I can produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. I can create an organization that establishes cohesion and clear relationships among ideas and concepts, including but not limited to use of appropriate and varied transitions.*
- *LT12 - Writing Process: I can develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.*
- *LT13 - Research & MLA: I can conduct and write short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem by narrowing or broadening the inquiry when appropriate, synthesizing multiple sources on the subject, and demonstrating a new understanding of the subject under investigation. I can use multiple search terms to generate a variety of print and digital sources; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism, and following a standard format for citation.*

- *LT14 - Evidence & Development: I can support and defend interpretations, analyses, reflections, or research with evidence found in literature or informational texts. I can develop the topic and argument 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 using precise language and domain-specific vocabulary.*

Language
- *LT15 - Grammar & Usage*
  - ***(Structure)**: I can demonstrate command of the conventions of standard English grammar and usage when writing or speaking to convey specific meaning and add variety and interest to writing or presentations.*
  - ***(Spelling, Punctuation, Caps)**: I can demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing; when reading and writing. I can write and edit work so that it conforms to a style guide appropriate for the discipline and writing type.*
- *LT16 - Understanding & Using Language: I can apply knowledge of language to understand how language functions in different contexts [reading, listening, writing to demonstrate], to make effective choices for meaning or style, and to comprehend more fully when reading or listening. I can demonstrate independence in building vocabulary knowledge when considering a word or phrase important to comprehension or expression. I can determine or clarify the meaning of unknown and multiple-meaning words and phrases. I can acquire and accurately use general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the postsecondary and workforce readiness level.*

English III, English IV (*20 learning targets*)

Reading/Analysis
- *LT1 - Inference & Evidence: I can analyze what a text says explicitly and draw inferences; cite the strongest, most compelling textual evidence to support conclusions. Analyze what a text says explicitly and draw inferences; cite the strongest, most compelling textual evidence to support conclusions.*
- *LT2 - Central Idea & Development: I can determine a central idea of a text and analyze its development; provide an objective or critical summary. Analyze how an author presents and develops key ideas and events to impact meaning.*
- *LT3 - Theme & Development: I can determine a theme or central idea of a text and analyze its development; provide an objective or critical summary. Analyze how complex characters, events, and ideas develop and interact over the course of a text to impact meaning.*
- *LT4 - Word Choice & Tone: I can determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone, such as how language evokes a sense of time and place, and how it communicates an informal or formal tone. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings in grades 9-10 reading and content; interpret figures of speech in context and analyze their role in a text; analyze nuances in the meaning of words with similar denotations.*
- *LT5 - Structure & Purpose: I can analyze how an author's choices concerning text structure, plot structure, and/or time manipulation create effects such as mystery, tension, or surprise. Analyze how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text. Analyze how point of view and/or author purpose shapes the content and style of diverse texts.*
- *LT6 - Topics & Arguments: I can determine an author's point of view or purpose and analyze how an author uses rhetoric to advance that point of view or purpose. Evaluate the topic, subject, and/or theme in two diverse formats or media. Evaluate the topic or subject in two diverse formats or media. Evaluate how reasoning and evidence affects the argument and specific claims in a text.*
- *LT7 - Analyze Texts: I can analyze a variety of related literary texts and evaluate how an author draws on, alludes to, or transforms source material to provide a deeper and more thorough interpretation of the text.*

Analyze a variety of thematically-related texts of historical and literary significance for the way they address related topics, facts, and concepts.

Writing

- *LT8 - Writing Arguments: I can write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning supported by relevant and sufficient evidence: a. Introduce precise claim(s). b. Use argumentative techniques such as claims, counterclaims, and rebuttals. c. Provide a concluding statement or section that follows from and supports the argument presented. d. Establish and maintain a formal style and objective tone.*
- *LT9 - Writing Expository/Informative: I can write informative/explanatory texts to analyze and convey complex ideas, concepts, and information clearly and accurately through the effective selection and organization of content: a. Provide an introduction that is relevant to the rest of the text and effectively engages the audience. b. Use expository techniques such as facts, definitions, details, examples, and quotations. C. Provide a concluding statement or section that follows from and supports the information or explanation presented. d. Use appropriate formatting, graphics, and multimedia to aid comprehension. e. Establish and maintain a formal style and objective tone.*
- *LT10 - Writing Narratives: I can write narrative fiction or literary nonfiction to convey experiences and/or events using effective techniques, well-chosen details, and well-structured event sequences. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing point of view, and introducing a narrator/speaker and/or characters. b. Sequence events so that they build on one another to create a coherent whole. c. Create a smooth progression of experiences or events. d. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines to convey experiences, events, 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. f. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters. g. Establish and maintain an appropriate style and tone.*
- *LT11 - Organization & Structure: I can produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. Create an organization that establishes cohesion and clear relationships among claim(s), counterclaim(s), reasons, and evidence. Organize ideas to create cohesion and clarify relationships among ideas and concepts, including but not limited to use of appropriate and varied transitions.*
- *LT12 - Writing Process: I can develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.*
- *LT13 - Research & MLA: I can conduct and write short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem by narrowing or broadening the inquiry when appropriate, synthesizing multiple sources on the subject, and demonstrating a new understanding of the subject under investigation. Use multiple search terms to generate a variety of print and digital sources; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism, and following a standard format for citation.*
- *LT14 - Evidence & Development: I can support and defend interpretations, analyses, reflections, or research with evidence found in literature or informational texts, applying grade band 9-10 standards for reading to source material. Develop [generate] claim(s) and counterclaim(s) fairly, supplying evidence for each claim and counterclaim while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. 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. Use precise language and domain-specific vocabulary to manage the complexity of the topic.*

Speaking and Listening

- *LT15 - Collaboration in Discussions: I can initiate and participate effectively with varied partners in a range of collaborative discussions on appropriate 9th-10th grade topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. 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. 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. 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. 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. Integrate and evaluate multiple sources of information presented in diverse media formats; evaluate the credibility and accuracy of each source. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric; identify any fallacious reasoning and/or exaggerated or distorted evidence.*
- *LT16 - Present Info Clearly: I can present information, findings, and supporting evidence clearly, concisely, and logically, so that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task. Make strategic use of digital media and visual displays in presentations to enhance understanding of findings, reasoning, and evidence and to add interest. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.*

Language
- *LT17 - Grammar (Structure): I can demonstrate command of the conventions of standard English grammar and usage when writing or speaking; use effective parallel structure and various types of phrases and clauses to convey specific meaning and add variety and interest to writing or presentations.*
- *LT18 - Mechanics (Spelling, Punctuation, Caps): I can demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing; when reading and writing, explain the functions of semicolons and colons to separate related ideas and use them correctly to do so; write and edit work so that it conforms to a style guide appropriate for the discipline and writing type.*
- *LT19 - Using Language: I can apply knowledge of language to understand how language functions in different contexts [reading, listening, writing to demonstrate], to make effective choices for meaning or style, and to comprehend more fully when reading or listening. Demonstrate independence in building vocabulary knowledge when considering a word or phrase important to comprehension or expression.*
- *LT20 - Understanding Word Meanings: I can determine or clarify the meaning of unknown and multiple-meaning words and phrases based on 9th -10th grade-level text by choosing flexibly from a range of strategies: a. Use context as a clue to the meaning of a word or a phrase. b. Use common grade-appropriate morphological elements as clues to the meaning of a word or a phrase. c. Consult reference materials, both print and digital, to find the pronunciation of a word or phrase. d. Use etymological patterns in spelling as clues to the meaning of a word or phrase. Acquire and accurately use general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the postsecondary and workforce readiness level.*

Social Studies

Social Studies content varies from one social studies course to another for the content learning targets. However, the process learning targets required for social studies, regardless of topic focus, are the same. The complexity of these process skills required is deeper in the higher-level social studies course. All learning targets will have at least one grade recorded in the PowerSchool gradebook during the school year.

World History and Geography (*9 learning targets*)

Content
- *LT1 - Age of Revolution (1750-1850): I can evaluate the social and political revolutions in England, Latin America, France, and the United States.*
- *LT2 - The Industrial Revolution (1750-1914): I can analyze the emergence and effects of the Industrial Revolution in Europe, Asia, and North America.*
- *LT3 - Unification and Imperialism (1850-1914): I can analyze the independence efforts of former European colonies with special attention to power struggles, armed revolutions, and cultural clashes.*
- *LT4 - The World Wars (1914-1945): I can analyze the causes of WWI and evaluate it's role in leading the world into a second world war. We will also consider the global depression of the Global Economy, the rise of fascist and totalitarian nations, and the plight of ethnic and religious minorities during this time.*
- *LT5 - The Cold War (1945-1989): I can evaluate the objectives and both gains and losses during the Cold War between the United States and the Soviet Union. Special attention will be placed on the results of the cold war upon the Middle East, Latin America, Africa, and Asia.*
- *LT6 - The Contemporary World (Since 1989): I can analyze and investigate major world events since the end of the Cold War with special attention to Globalization.*

Process
- *LT7 - Invention/ Creation: I can explain the function of an existing invention from the 18th century and its cultural, societal impact. I can create a 3-D invention that would improve 18th century life.*
- *LT8 - Research: I can evaluate historical events with research from experts in the field in order to measure the event's social, military, economic, global, and political impact. I can present a strong introduction with a thesis, appropriate supporting evidence and correctly cite my primary and secondary sources.*
- *LT9 - Demonstration: I can produce a presentation to investigate historical people and events and provide a research based argument/thesis and defense that identifies lasting impacts.*

Modern US History (*8 learning targets*)

Content
- *LT1 - The Rise of Industrial America and the Progressive Era: I can describe and analyze the themes and events of the New South, Old West, Industrialization, Immigration, Urbanization, and Gilded Age Politics. I can describe and analyze the themes and events of Populism, Imperialism, and The Progressives.*
- *LT2 - Great Wars and the 20s: I can describe and analyze the themes and events of World War I, the 1920s, the Great Depression, the New Deal and World War II.*
- *LT3 -Post War Change: I can describe and analyze the themes and events of the Cold War, the Affluent Era and Civil Rights.*
- *LT4 - Great Society and Baby Boomers and Modern America:: I can describe and analyze the themes and events of the 1960s, Vietnam, Counterculture, and 1970s. I can describe and analyze the themes and events of the Rise of Conservatism, the End of the Cold War, Lone Superpowers, and Post 9/11.*

Process

- *LT5 - Socratic Seminar: I can create a researched claim that evaluates historical events, introduce the evidence while providing my own interpretation, and participate in a formal discussion with my peers.*
- *LT6 - Debate: I can produce a defense of a debatable topic based on historical fact and logical interpretation and be prepared to defend each side.*
- *LT7 - DBQ: I can evaluate a document-based question (DBQ) using preselected primary sources and previous historical knowledge to produce an organized supported argument.*
- *LT8 - DE Test Preparation: I can prepare for the college-based Dual Enrollment Modern US History Examination though mock test, preparation guides, and group study.*

Economics (*9 learning targets*)

Reading
- *LT1: I can identify key ideas and details through engaging with text.*
- *LT2: I can integrate knowledge and ideas from texts.*

Writing
- *LT3: I can demonstrate a wide range of writing, including persuasive, informative/explanatory, narrative, and formal writing.*

Content:
- *LT4: I can differentiate market structures , identify organization and role of business firms, and trade goods and services.*
- *LT5: I can understand the role supply and demand forces play in micro and macroeconomics – How scarcity, prices, and profits play into determining production and distribution of goods and services.*
- *LT6: I can recognize the force of innovation on Markets – The market forces of supply and demand produce innovations to bringing projects to scale.*
- *LT7: I can define my ethical position on – the cost of hacking, corporate espionage and theft, bribery, collusion, conspiracy, white collar/blue collar crimes, price gouging, military industrial complex, money in politics/Citizens United, economic aid, US AID, AMFAR, PEPFAR, OBAMA CARE.*
- *LT8: I can identify the role of government in the economy - Federal Reserve Banking System, Taxation, Budgets, and Regulations; copyright, trademark, and patents.*
- *LT9: I can analyze the economic reasoning contained in the writings of economists and innovators including but not limited to Adam Smith, John Maynard Keynes, Karl Marx, Milton Friedman, Ester Duflo, Paul Krugman, Steve Jobs, Christine Lagarde, Steven Levitt, and Steven Dubner, Thomas Friedman, Bill Clinton, Bill Gates, Elon Musk, Burt Rutan, Larry Page, Sergey Brin, Carmen Reinhart, Mark Zuckerberg, Blake Mycoskie, Jeff Bezos, Barack Obama, Richard Branson, (Local Innovators) Sheldon Grizzle, Mike Bradshaw, Allan Davis, Barry Large, Shelley Prevost, and Miller Welborne.*

U.S. Government (*8 learning targets*)

Reading
- *LT1: I can identify key ideas and details through engaging with text.*
- *LT2: I can integrate knowledge and ideas from texts.*

Writing
- *LT3: I can demonstrate a wide range of writing, including persuasive, informative/explanatory, narrative, and formal writing.*

Content

- *LT4: I can compare and contrast political thinkers including ancient Greek, Roman, and European political thinkers including Plato, Cicero, John Locke, Montesquieu, Rousseau, Niccolo Machiavelli, Alexis de Tocqueville, and Marx.*
- *LT5: I can read and apply the themes of the U.S. Constitution including the Preamble, Bill of Rights, Separation of Powers, Independent Judiciary, Enumerated/Shared/Implied Powers, and issues of today. I will understand checks and balances and direct and implied powers in articles 1-3 of the Constitution outlining the legislative, executive, and judicial powers.*
- *LT6: I can identify the differences between the levels of TN government including county, city, metro, and state government. I will identify current representatives in TN General Assembly, and identify a public policy issue in my community, gather information about issue, evaluate points of view, produce an innovative solution. I will locate laws and explore the Tennessee Code Annotated.*
- *LT7 – Civil Rights - I can explore and explain the civil rights movement, including Title 9, Americans with Disabilities Act, 13th, 14th, 15th Amendments, 19th Amendment, Plessy v. Ferguson, Brown v. Board of Education, Miranda v. Arizona, Voting Rights Act 1965, Civil Rights Act 1957/1960/1964, Obergefell v. Hodges.*
- *LT8 – Civic Participation - Describe the means that citizens use to participate in the political process, including: campaigning, demonstrating, lobbying, petitioning, running for office, voting.*

STEM Tech Time Electives

STEM Tech Time elective content have one set of learning targets. Learning targets in these courses will have at least one grade recorded in the PowerSchool gradebook during the school year.

Coding I (*9 learning targets*)

- *LT1 - Programming Basics: I can explain how programming languages differ and recognize the difference between comments and code*
- *LT2 - HTML\CSS: I can create multiple HTML pages using a document object model and alter the visual aspects of these pages using a single CSS file.*
- *LT3 - Javascript: I can develop a web application using javascript.*
- *LT4 - Python: I can create an original python application.*
- *LT5 - Introduction to Data Science: I can create a program that performs a mathematical analysis of a large dataset and present these results accurately using graphs, tables or other visuals.*
- *LT6 - Libraries and APIs: I can load a library into my program and access external data using an API*
- *LT7 - Physical Computing: I can create a program that drives a physical device to accomplish a specific, predetermined task.*
- *LT8 - Debugging: I can locate and correct both syntax and logic errors in a program.*
- *LT9 - Generative Art: I can use generative algorithms to create mathematically generated visual, audio, and/or other unique art projects.*

Coding II (*5 learning targets*)

- *LT1 - Machine Learning: I can create a machine learning program that I have trained and developed the model to identify a sound, image, or motion*
- *LT2 - Web Application DevelopmentData Collection: I can write a program that collects specific data from the internet that cannot be accessed by traditional downloads create a web application using a web framework such as Flask, REACT, or .NET*
- *LT3 -Physical Computing/Mechatronics: I can create a program that drives a physical device, such as a robot, to accomplish a specific, predetermined task.*
- *LT4 - Data Science: I can create a program that performs a mathematical analysis of a large dataset and present these results accurately using graphs, tables or other visuals.*
- *LT5 -Product planning and time management: I can plan a large scale program on a specific computer science topic and deliver my part of the program in a given time scale*

Digital Fabrication (*1 learning target*)

- *LT1 - I can meet the requirements needed to earn my 'Master Fabricator' badge*
    - *Physical Computing*
        - *Electronics*
        - *Micro:Bits*
        - *Arduino*
        - *Computer Science*
    - *2D Graphic Design*
        - *Vector Graphic Design*

- - - *Bitmap Graphic Design*
    - *Laser Cutter*
    - *Poster Printer*
    - *CNC*
  - *3D Graphic Design*
    - *3D Design Basic*
    - *3D Design Advanced*
    - *3D Printer*
    - *3D Printer Mechanic*
  - *Fabrication Materials and Processes*
    - *Prototype Iterator*
    - *Sewing Machines and Embroidery*
    - *Open-Ended Fabrication*

Multimedia *(8 learning targets)*

- *LT1 - Basic camera use: I can demonstrate that I can properly use a camera by attaching a microphone, filming a in-focus video, and transferring video from the camera to a computer*
- *LT2 - Lighting and framing: I can design and setup both lighting and camera to film a subject that is clear with a visually appealing background*
- *LT3 - Editing and editing software: I can create a video using footage from multiple cameras and audio inputs, along with transitions, cuts, and/or visual effects and export the project into a single video.*
- *LT4 - Green screen effects: I can create a video that uses a green screen for visual effects.*
- *LT5 - Audio and sound design: I can use the proper microphone and technology to create a video with clear and consistent audio.*
- *LT6 - Image manipulation: I can use design software to create original graphics that can be used in videos and live streams.*
- *LT7 - Product design and development: I can work with a group to plan, produce, and stream a live production*
- *LT8 - Video streaming: I can stream a live video production using multiple audio and video sources, while maintaining scheduled start, end, and break times.*

Visual Arts

Visual Arts content has one set of learning targets. Learning targets in visual arts will have multiple grades recorded in the PowerSchool gradebook during the school year.

Visual Art (*5 learning targets*)

Media, Techniques, and Processes
- *LT1 - Create: I can generate and conceptualize various artistic problem based issues in an organized and refined manner using technology, media, techniques, and processes to discover artistic solutions.*

Evaluation
- *LT2 - Present: I can analyze, develop and convey meaning through the production and presentation of various art forms*

Reflecting and Assessing
- *LT3 - Respond: I can perceive, interpret and evaluate the meaning and effectiveness of the application of media, techniques, and processes used to discover artistic solutions*

Historical and Cultural
- *LT4 - Connect: I can synthesize knowledge and personal experiences to relate ideas to social, cultural and historical context*

Interdisciplinary Connections
- *LT5 - Plan: I can plan and produce a work of art combining technologies, media, and processes of visual art with those of another discipline*

Personal Finance

Personal Finance content has one set of learning targets. Learning targets in personal finance will have at least one grade recorded in the PowerSchool gradebook during the school year.

Personal Finance (*9 learning targets*)

- *LT1: I can learn about the power of interest, and how a few smart financial habits can help me reach my savings goals. I can work in groups to create a proper yearly budget.*
- *LT2: I can learn about the fundamentals for the U.S. banking system and how to select, use, and monitor my bank accounts. I can work in groups to compare and contrast different banks and look into their benefits.*
- *LT3: I can explore a wide variety of payment types, and delve into the world of how to select and use credit cards. I can work in groups to find the pros and cons of the multiple types of credit cards.*
- *LT4: I can see how a credit score is calculated, why it matters, and how to effectively monitor my credit history. I can work together on a plan to gain credit and how to use it properly.*
- *LT5: I can learn about the financial aid application process, and learn about ways I can pay for higher education. I can collaborate and present an accurate way to apply for financial aid. Also, I can compare different financial aid programs to see which one is the most effective.*
- *LT6: I can learn about the difference between renting and owning. Whether it's a home or car, I face a decision: rent or own?*
- *LT7: I can understand why it's actually a good thing that part of my monthly paycheck goes toward insurance and taxes.*
- *LT8: I can learn how to avoid risk for identity theft & consumer fraud and how I can protect myself.*
- *LT9: I can learn about the basics of investing and how I can put money to work in my favor. I can collaborate in creating an investment plan.*

Spanish

Spanish content has one set of learning targets for Spanish I and II. Learning targets in Spanish courses will have at least one grade recorded in the PowerSchool gradebook during the school year.

Spanish I (*4 learning targets*)

- *LT1: Interpersonal Communication - I can communicate in spontaneous spokens, written, or signed conversations on both very familiar and everyday topics, using a variety of practiced or memorized words, phrases, simple sentences, and questions.*
- *LT2: Interpretive Communication - I can identify the general topic and some basic information in both very familiar and everyday context by recognizing practiced or memorized words, phrases, and simple sentences in text that are spoken, written, or signed.*
- *LT3: Presentational Communication - I can present information on both very familiar and everyday topics using a variety of practiced or memorized words, phrases, and simple sentences through spoken, written, or signed language.*
- *LT4: Culture - In my own and other cultures, I can identify products and practices to help me understand perspectives.*

Spanish II (*4 learning targets*)

- *LT1: Interpersonal Communication - I can participate in spontaneous spoken, written, or signed conversations on familiar topics, creating sentences and series of sentences to ask and answer a variety of questions.*
- *LT2: Interpretive Communication - I can understand the main idea and some pieces of information on familiar topics from sentences and series of connected sentences within texts that are spoken, written, or signed.*
- *LT3: Presentational Communication - I can communicate information, make presentations, and express my thoughts about familiar topics, using sentences and series of connected sentences through spoken, written, or signed language.*
- *LT4: Culture - In my own and other cultures, I can make comparisons between products and practices to help me understand perspectives.*