Social Studies

8th Grade – American History

Outcome: **SS.AH8.1** Students will be able to identify and interpret the causes and effects of post Civil War politics on rebuilding southern states as well as the rapidly changing northern states and the peoples therein.

Components: **SS.AH8.1.1** – Explain the concept of reconstruction.

SS.AH8.1.2 – Identify the key persons involved in reconstruction.

SS.AH8.1.3 – Determine what effect various law and amendments has on the reconstruction process.

SS.AH8.1.4 – Compare and contrast the ways in which former slaves were treated in the north versus the south.

SS.AH8.1.5 – Evaluate the importance of the Freedman's Bureau.

SS.AH8.1.6 – Assess the evidence and conclude whether or not President Andrew Johnson was guilty of an impeachable offense.

SS.AH8.1.7 – Interpret the success of reconstruction based on the rights gained by former slaves as a result of the governmental policies.

SS.AH8.1.8 – Interpret the failures of reconstruction based on the rights lost by former slaves as a result of the governmental policies.

Outcome: **SS.AH8.2** Students will be able to summarize the important events involved in the expansion and settlement of the post Civil War west, while describing the difficulties of everyday existence.

Components: **SS.AH8.2.1** – Assess the geographical features of the west that made settlement difficult.

SS.AH8.2.2 – Determine what benefits and difficulties made the west more or less attractive to Homesteaders.

SS.AH8.2.3 – Analyze the importance and effectiveness of the Homestead Act.

SS.AH8.2.4 – Consider the point of view of various Native American tribes in relation to westward expansion.

SS.AH8.2.5 – Debate the United States' governmental policy and military response to the Native American question.

SS.AH8.2.6 – Compare and contrast the impact of the arrival of the new immigrant class on the settlement of the west.

SS.AH8.2.7 – Identify the members of the new immigrant class.

SS.AH8.2.8 – Elaborate on the importance and the role of the cowboy in the west.

SS.AH8.2.9 – Explain the role of gold and silver prospectors in relation to the development of the boom/bust towns and the economy of the west.

SS.AH8.2.10 – Evaluate the impact that the establishment of a Transcontinental Railroad had on the entire country.

SS.AH8.2.11 – Analyze both the positive and negative issues railroad workers faced each day.

Outcome: **SS.AH8.3** Students will be able to assess the impacts of Big Business and Industrial Growth on American citizens and the United States government, while demonstrating how those impacts led to fundamental changes in daily life.

Components: **SS.AH8.3.1** – Identify important business leaders.

SS.AH8.3.2 – Assess the positive and negative issues regarding monopolies.

SS.AH8.3.3 – Determine what factors best allow for industrial growth.

SS.AH8.3.4 – Identify various inventors of the era.

SS.AH8.3.5 – Interpret the importance and economic impact of various inventions.

SS.AH8.3.6 – Judge the actions of various industrialists.

SS.AH8.3.7 – Measure the effect of big business and industrial growth on the average American.

SS.AH8.3.8 – Document the impact of big business and industry on the national as well as international economies.

SS.AH8.3.9 – Differentiate between key concepts such as: corporation and trust.

SS.AH8.3.10 – Explain the concept of social Darwinism.

Outcome: **SS.AH8.4** Students will determine the influence that Immigration had on the establishment and development of the big cities of the north while considering the roles of major reformers and the political/social aspect of the Progressive Movement.

Components: **SS.AH8.4.1** – Analyze the reasons why labor unions developed during the 19th century.

SS.AH8.4.2 – Assess the issues regarding employment in large factories.

SS.AH8.4.3 – Examine the concepts and public attitudes in regards to child labor.

SS.AH8.4.4 – Document the many problems of rapidly growing cities.

SS.AH8.4.5 – Elaborate on the principle issues that led to Women's movement.

SS.AH8.4.6 – Identify key reformers and the issues they fought for.

SS.AH8.4.7 – Evaluate the key issues facing the new wave of immigrants arriving in the United States during the late 19th century.

SS.AH8.4.8 – Determine the effects of various political reforms on American citizens.

SS.AH8.4.9 – Compare and contrast the attempts to address and solve various issues of the era.

SS.AH8.4.10 – Debate the role and effectiveness of Muckrakers on the reform movement.

Outcome: **SS.AH8.5** Students will examine and distinguish between the competing ideologies (political, economic, and social) that plunged the United States into various global affairs.

Components: **SS.AH8.5.1** – Analyze the three types of diplomacy employed by the United States.

SS.AH8.5.2 – Interpret the causes and effects of the Spanish American War.

SS.AH8.5.3 – Determine what Imperialism is.

SS.AH8.5.4 – Debate the positive and negative aspects of Imperialism.

SS.AH8.5.5 – Identify the importance of international trade.

SS.AH8.5.6 – Document the economic benefits and problems of involvement in international affairs.

SS.AH8.5.7 – Hypothesize what the importance and impacts of a Sphere of Influence might be.

SS.AH8.5.8 – Consider the issues involved which led to the Russo-Japan War and any effects it may have had on the United States.

SS.AH8.5.9 – Justify the use and importance of the press, including yellow journalism and propaganda.

SS.AH8.5.10 – Interpret the causes and effects of WWI.

Social Studies
8th Grade – World History

Outcome: **SS.WH8.1** Students will assess the impacts of the Roman Empire on the previously existing societies of the Mediterranean world, and demonstrate how those impacts led to fundamental changes in daily life through the creation of social institutions.

Components: **SS.WH8.1.1** – Determine what factors led to the establishment of Rome.

SS.WH8.1.2 – Judge the importance of the creation of a Roman Republic.

SS.WH8.1.3 – Explain the reason behind the rapid growth of the Roman Empire and its role in trade.

SS.WH8.1.4 – Critique the effect of the Roman Empire on Mediterranean cultures.

SS.WH8.1.5 – Debate the importance and historical impact of various Roman Emperors.

SS.WH8.1.6 – Consider the events that led to the development and acceptance of Christianity.

SS.WH8.1.7 – Evaluate the cultural and political impacts of the Roman Games.

SS.WH8.1.8 – Distinguish the identifying features of Roman Architecture when compared to various other forms.

SS.WH8.1.9 – Compile a list of factors that led to the fall of Rome.

Outcome: **SS.WH8.2** Students will examine the roles of individuals and/or groups who shaped Western Europe during the Dark/Middle Ages, and evaluate the influences each had on the development of social structures.

Components: **SS.WH8.2.1** – Estimate the impact that the loss of Roman institutions had on Western Europe.

SS.WH8.2.2 – Assess the importance of the early ruling families of France and England (c. 400-1400 C.E.).

SS.WH8.2.3 – Point out how the role of the monarchy led to the creation of Feudalism.

SS.WH8.2.4 – Debate the causes, effects and impacts of Nation Building on the peoples of Western Europe.

SS.WH8.2.5 – Categorize the various levels of medieval feudal society.

SS.WH8.2.6 – Differentiate between countries and the Holy Roman Empire.

SS.WH8.2.7 – Document the importance of the crusades and their cultural/social/economic impacts.

SS.WH8.2.8 – Review the role of the Medieval Church and its impacts on everyday life.

SS.WH8.2.9 – Examine the importance of establishment of legal and political systems. (i.e., jury system, common law, parliament)

SS.WH8.2.10 – Dissect the events and effects of the Black Death on all levels of society.

Outcome: **SS.WH8.3** Students will categorize the various world religions that directly impact Western European civilizations, and distinguish which founding principles a society may view as beneficial or problematic.

Components: **SS.WH8.3.1** – Compare and contrast the principles of: Christianity/Islam/Judaism.

SS.WH8.3.2 – Document the issues in the Christian Catholic Church that led to various reform movements.

SS.WH8.3.3 – Analyze the importance of Martin Luther's 95 theses.

SS.WH8.3.4 – Evaluate the impact that Henry VIII's split from the Catholic Church had on Rome and England.

SS.WH8.3.5 – Consider the effect that Mary I and Elizabeth I had on the religious identity of English citizens.

SS.WH8.3.6 – Judge the effect that the Inquisition had on citizens of Europe and on religious institutions.

SS.WH8.3.7 – Discuss how the successful establishment of Protestant religions forces the Catholic Church to reform itself.

Outcome: **SS.WH8.4** Students will assess the cultural impact of art, music, literature, education, and trade, on the people of Europe, and measure the importance of each in changing the way the citizens thought about worldly issues.

Components: **SS.WH8.4.1** – Identify by name and artist various works of renaissance art.

SS.WH8.4.2 – Identify by name and author various works of renaissance literature.

SS.WH8.4.3 – Explain the new innovations and stylistic approaches exhibited in renaissance art.

SS.WH8.4.4 – Assess the relationship between trade and educational advancements as a result of the crusades and the Black Death.

SS.WH8.4.5 – Establish a link between the Black Death and early renaissance art and literature.

SS.WH8.4.6 – Correlate the relationship between renaissance learning and the educational practices of ancient Greece and Rome.

SS.WH8.4.7 – Review the importance of the printing press and movable type.

SS.WH8.4.8 – Catalog the important persons of the Renaissance.

SS.WH8.4.9 – Point out the Catholic Church's response to various Renaissance ideologies.

Outcome: **SS.WH8.5** Students will research the leaders, peoples, and institutions involved in a rapidly growing European continent, and debate the causes and effects that lead to dramatic change and social upheaval.

Components: **SS.WH8.5.1** – Identify key persons in relation to the Monarchs of Europe c.1500-1815.

SS.WH8.5.2 – Compare and contrast the various Absolute Monarchs of Spain c. 1469-1600.

SS.WH8.5.3 – Determine the role of the church and monarchy in the establishment of the Spanish Inquisition.

SS.WH8.5.4 – Compare and contrast the various Absolute Monarchs of England c. 1485-1714.

SS.WH8.5.5 – Debate the causes and effects of the English Civil War.

SS.WH8.5.6 – Interpret the importance and costs of exploration and colonization for England, Spain and France.

SS.WH8.5.7 – Compare and contrast the various Absolute Monarchs of France c. 1610-1792.

SS.WH8.5.8 – Identify key persons involved in the French Revolution.

SS.WH8.5.9 – Evaluate the events that led to the revolution in France and determine what might have been the best way to defuse the crisis.

SS.WH8.5.10 – Consider the role of the estates general as an agent for change.

SS.WH8.5.11 – Determine the effectiveness of the Reign of Terror.

SS.WH8.5.12 – Analyze the effectiveness of the French Revolution.

SS.WH8.5.13 – Examine Napoleon's rise to power.

SS.WH8.5.14 – Document the successes and failures of Napoleon's reign.

Science Curriculum
8th Grade

Sound & Light

Outcome: **S.8.1** Students will assess the properties and the interaction of waves.

Components: **S.8.1.1** – Define waves and identify the cause of waves. 12.C.4a

S.8.1.2 – Identify and classify the main types of waves. (Transverse long. and surface) 12.C.4a

S.8.1.3 – List and describe the basic properties of waves. (Amplitude, length, speed, frequency) 12.C.4a

S.8.1.4 – Describe how a wave's speed is related to its wavelength and frequency and calculate wave speed. 12.C.4a

S.8.1.5 – Identify and compare reflection, refraction and diffraction. 12.C.4a

S.8.1.6 – Describe the two types of interference of waves. (Constructive and destructive) 12.C.4a

S.8.1.7 – Identify and describe standing waves and resonance. 12.C.4a

S.8.1.8 – Model the behavior of waves. (Demonstrate amplitude, frequency, wavelength and interference) 12.C.4a

Outcome: **S.8.2** Students will observe, and explain and debate concepts of sound and music. In addition, they will hypothesize and design an experiment or make a product related to sound.

Components: **S.8.2.1** – Define sound and explain how sound waves interact. 12.C.4a

S.8.2.2 – Identify variables that affect the speed and loudness of sound and identify variables that the pitch of a sound depends on. 12.C.4a

S.8.2.3 – Explain the cause of the Doppler Affect. 12.C.4a

S.8.2.4 – Identify the parts and function of each section of the ear. 12.C.4a

S.8.2.5 – Design an experiment (variable that affects pitch) to test the student's hypothesis about water level and pitch and/or design and build hearing protectors. 11.A.3a, 11.A.3b, 11.A.3c, 11.B.3a, 11.B.3b, 11.B.3c

S.8.2.6 – Brainstorm the different uses of sound waves. 12.C.4a

S.8.2.7 – Evaluate how living things use ultrasound technologies. (Echolocation and sonar) 12.C.4a

S.8.2.8 – Identify the causes of hearing loss and explore the question of societal implications of noise pollution and hearing protection and reducing exposure to loud noise and who should be responsible in protecting one's hearing. 13.B.3d, 12.C.4a

Outcome: **S.8.3** Students will explain the uses of electromagnetic waves and portray how other wireless communication systems work.

Components: **S.8.3.1** – Define an electromagnetic wave. 12.C.4a

S.8.3.2 – Identify models that explain the behavior of electromagnetic waves. (Quantum physics – wave vs. particle) 12.C.4a

S.8.3.3 – Compare and contrast waves. 12.C.4a

S.8.3.4 – Evaluate light bulbs by inferring which light bulb gives the most illumination based on observation. 11.B.3a, 11.B.3b

S.8.3.5 – Draw conclusions about light bulb economy. 11.A.3f, 12.C.4a

S.8.3.6 – Explain how radio waves transmit information. 12.C.4a

S.8.3.7 – Examine how cellular phones work. 12.C.4a

S.8.3.8 – Explain how communication satellites relay information. 12.C.4a

Outcome: **S.8.4** Students will examine light and compare mixing pigments and mixing colors of light. The student will verify ways to use light and explain the uses of lenses.

Components: **S.8.4.1** – Describe what happens to the light that strikes an object. 12.C.4a

S.8.4.2 – Describe how color is determined in an opaque, transparent, or translucent object. 12.C.4a

S.8.4.3 – Contrast the mixing of pigments and the mixing of colors of light. 12.C.4a

S.8.4.4 – Observe how color filters affect white light and predict the behavior of white light using different filters. 12.C.4a

S.8.4.5 – Identify the kinds of reflection. 12.C.4c

S.8.4.6 – Interpret data regarding the distance between an object and a convex lens and the effects on the image. 12.C.4a

S.8.4.7 – Explain why light rays bend. 12.C.4a

S.8.4.8 – Classify the various types of images formed by convex and concave lenses. 12.C.4a

S.8.4.9 – Explain how the eye sees objects. 12.C.4a

S.8.4.10 – Identify the types of lenses that are used to correct vision problems. 12.C.4a

S.8.4.11 – Differentiate the lenses used in telescopes, microscopes, and cameras. 12.C.4a

S.8.4.12 – Identify the composition of a laser light and explain how a laser light is used. 12.C.4a

S.8.4.13 – Explain the reason optical fibers can carry laser beams a long distance. 12.C.4a

Chemistry

Outcome: **S.8.5** Students will be able to explain how the periodic table relates to atoms and their bonding, make models of atoms, interpret data from tests and to determine which solutions conduct electricity.

Components: **S.8.5.1** – Explain why elements are called the building blocks of matter. 12.C.3b

S.8.5.2 – Describe how atomic theory developed and changed. 12.C.3b, 13.A.3b

S.8.5.3 – Explain how the reactivity of an element is related to valence electrons in the atom. 12.C.3b

S.8.5.4 – Describe the organization of the periodic table. 12.C.3b

S.8.5.5 – Explain how to use the atomic number to make a model of an atom. 12.C.3b

S.8.5.6 – Describe ions, and explain how they form bonds and conduct electricity. (Inferring) 12.C.3b

S.8.5.7 – Explain how the formulas and names of ionic compounds are written. 12.C.3b

S.8.5.8 – State what holds covalently bonded atoms together. 12.C.3b

S.8.5.9 – Identify the properties of molecular and ionic compounds. 12.C.3b

S.8.5.10 – Explain how unequal sharing of electrons occurs and how it affects molecules. (Polarity) 12.C.3b

S.8.5.11 – Explain how metallic bonding results in useful properties of metals. 12.C.3b

Outcome: **S.8.6** Students will observe chemical changes and describe and categorize chemical reactions. Students will also predict how substances react and draw conclusions about whether a chemical reaction has taken place.

Components: **S.8.6.1** – Describe the changes in matter. 12.C.3a

S.8.6.2 – Explain how you can tell when a chemical reaction occurs. 12.C.3a

S.8.6.3 – Analyze the data on a graph when energy changes in a chemical reaction. 11.A.3e

S.8.6.4 – Identify the information a chemical equation contains. 11.A.3e

S.8.6.5 – State the principal of conservation of mass. 12.C.3a

S.8.6.6 – Explain how a balanced chemical equation supports the conservation of mass. 12.C.3a

S.8.6.7 – Name three categories of chemical reactions. (Decomp., synthesis, replacement) 12.C.3a

S.8.6.8 – Discuss the chemical reaction that occurs in an airbag and what causes an airbag to inflate. Research and debate the safety of airbags in cars. 13.B.3f

S.8.6.9 – Explain how activation energy is related to chemical reactions. 12.C.3a

S.8.6.10 – Identify factors that affect the rate of a chemical reaction. 12.C.3a

S.8.6.11 – Interpret data and draw conclusions on how temperature affects the rate of reaction. 11.A.3f, 12.C.3a

S.8.6.12 – List the three things necessary to maintain a fire. (fuel, heat and oxygen) 12.C.3a

Force & Motion

Outcome: **S.8.7** Students will calculate speed, velocity, and acceleration. Describe what graph is used and graph the average speed.

Components: **S.8.7.1** – Determine when an object is in motion. 12.D.3a

S.8.7.2 – Calculate an object's speed and velocity. 12.D.3a

S.8.7.3 – Demonstrate how to graph motion. 11.A.3e

S.8.7.4 – Graph average speed using time/distance variables and/or average speed versus angle of ramp. 11.A.3e

S.8.7.5 – Calculate the speed at which Earth's plates move. 11.A.3e

S.8.7.6 – Describe the motion of an object as it accelerates. 12.D.3a

S.8.7.7 – Calculate acceleration. 12.D.3a, 12.D.4a

S.8.7.8 – Describe the graphs used to analyze the motion of an accelerating object. 12.D.4a

S.8.7.9 – Collect and interpret data from the motion of an accelerating object. 11.A.3c, 11.A.3f

Outcome: **S.8.8** Student will explain and interpret data on friction, force/acceleration relationships and momentum.

Components: **S.8.8.1** – Describe force. 12.D.3a

S.8.8.2 – Explain how balanced and unbalanced forces are related to an object's motion. 12.D.5a

S.8.8.3 – Describe friction, and identify factors that determine the friction force between two objects. 12.D.5a

S.8.8.4 – Control variables and interpret data in an investigation of friction. 11.A.3b, 11.A.3c

S.8.8.5 – Identify the factors that affect the gravitational force between two objects. 12.D.3b

S.8.8.6 – Explain why objects accelerate during free fall. 12.D.3b

S.8.8.7 – Graph data of acceleration vs. force and interpret data about the relationship between force and acceleration for constant mass. 12.D.3b

S.8.8.8 – State Newton's first, second and third laws of motion. 13.B.3b

S.8.8.9 – Explain how an object's momentum is determined. 12.D.3b

S.8.8.10 – State the Law of Conservation of momentum. 12.D.3b

S.8.8.11 – Explain how a rocket lifts off the ground. 12.D.4a

S.8.8.12 – Describe the forces that keep a satellite in orbit. 12.D.4a

S.8.8.13 – Design and build a vehicle that moves without an outside force acting on it. (Apply all three of Newton's laws) 12.D.5a

Outcome: **S.8.9** Explain and demonstrate pressure, buoyant force density, Pascal's Principal and Bernoulli's Principal. (In addition, design an experiment to test variables related to pressure)

Components: **S.8.9.1** – Explain what pressure depends on. 12.D.3a

S.8.9.2 – Explain how fluid exerts pressure. 12.D.3a

S.8.9.3 – Design an experiment to test factors affecting water pressure. (Control variables) 11.A.3b

S.8.9.4 – Describe the effect of the buoyant force. 12.D.3a

S.8.9.5 – Explain how the density of an object determines whether it sinks or floats. 12.D.3a

S.8.9.6 – State Pascal's Principle and recognize its application. 13.B.3b

S.8.9.7 – Explain how a hydraulic system multiplies force. 12.D.3a

S.8.9.8 – Use Bernoulli's Principle to explain how fluid pressure is related to the motion of a fluid. 12.D.3a

S.8.9.9 – List some applications of Bernoulli's Principle.

Optional Class Project:

Construct a boat that can float in water and carry cargo (50 pennies).

Machines and Work

Outcome: **S.8.10** The student will be able to identify when work is done, calculate work done plus power used using six simple machines, and calculate mechanical advantage and figure efficiency of a machine. (In addition, design, build, and test a complex machine)

Components: **S.8.10.1** – Identify when work is done on an object. 12.D.3a

S.8.10.2 – Calculate the work done on an object. 12.D.3a

S.8.10.3 – Define and calculate power. 12.C.4a

S.8.10.4 – Explain how machines make work easier. 12.D.3a

S.8.10.5 – Calculate the mechanical advantage of a machine. 12.C.4a

S.8.10.6 – Read a graph, interpret data and draw conclusions on mechanical advantage. 12.C.4a

S.8.10.7 – Calculate the efficiency of a machine. 12.C.4a

S.8.10.8 – Describe the six kinds of simple machines and their uses. 12.D.3a

S.8.10.9 – Calculate the ideal mechanical advantage of each type of simple machine. 12.C.4a

S.8.10.10 – Model a wheelchair ramp and calculate ideal and actual mechanical advantage. 11.B.3b, 11.B.3c, 11.B.3d, 11.B.3e

S.8.10.11 – Describe compound machines. 12.D.3a

S.8.10.12 – Design, build and test complex machines. 11.B.3b, 11.B.3c, 11.B.3d, 11.B.3e

S.8.10.13 – Debate automation in the workplace. (How can society use machines to make work easier and more productive without people losing their chance to work?) 13.B.2b

Outcome: **S.8.11** Students will interpret data related to work, power and energy and, explain how different forms of energy are related and transferred to other energy forms.

Components: **S.8.11.1** – Describe how energy, work and power are related. 12.D.3a

S.8.11.2 – Calculate work, gravitational potential energy and power and interpret data about the relationship between work and power. 12.C.4a

S.8.11.3 – Describe the two basic kinds of energy. (Kinetic and potential) 12.C.3a

S.8.11.4 – Explain how an object's mechanical energy is determined. 12.D.3a

S.8.11.5 – Name some forms of energy associated with the particles that make up objects. 12.D.4b

S.8.11.6 – Name common energy transformations. 12.C.4a

S.8.11.7 – State the Law of Conservation of energy in one's own words. 12.C.4a

S.8.11.8 – Control variables in an experiment to find the relationship between elastic potential energy and gravitational potential energy. (Lab)

Optional Class Project:

To design and construct a roller coaster that uses kinetic and potential energy.

Astronomy

Outcome: **S.8.12** Students will explain how telescopes work, the characteristics of stars, how stars form and define a star system. (In addition, research main astronomy subjects and/or create a telescope or plan a Martian system)

Components: **S.8.12.1** – Explain how telescopes work. 13.B.3a

S.8.12.2 – Describe the star classification system. 12.F.3b

S.8.12.3 – Compare absolute and apparent brightness and predict the parallax of an object at different distances.

S.8.12.4 – Describe the H - R diagram, a Star System, and explain how astronomers use it. 12.F.4a, 12.F.4b

S.8.12.5 – Identify the major types of galaxies. 12.F.4b

S.8.12.6 – Explain how astronomers describe the scale of the universe. 12.F.5b

S.8.12.7 – Describe the Big Bang Theory and compare the theory with what astronomers predict for the future of the universe. 12.F.4a

S.8.12.8 – Explain how our Solar System is unique. 12.F.3a

S.8.12.9 – Explore the theory of life beyond earth and the possibility of establishing a Martian Colony. 12.F.3c

Astronomy Projects for the Unit:

Design and build a telescope or plan a Martian station.
Research paper on: Setting up a colony on Mars.
International Space Station and partners in space.

Outcome: **S.8.13** Students will design, build, and demonstrate how a space vehicle works and its role in exploring space. Students will explain the benefits of space technology.

Components: **S.8.13.1** – Explain how rockets were developed. 13.A.4c, 13.B.2b

S.8.13.2 – Identify the main advantage of a multistage rocket. 13.A.4c

S.8.13.3 – Determine a rocket's altitude and how a model rockets altitude changes over time. 12.D.4a

S.8.13.4 – Describe the space race. 13.B.2b, 13.B.3a

S.8.13.5 – Discuss the Apollo Program and the Space Program. 13.B.3b

S.8.13.6 – Distinguish between the roles of space shuttles and those of space stations. 13.B.3a

S.8.13.7 – Identify features that space probes have in common. 13.B.3a

S.8.13.8 – Explain how the conditions in space are different from those on earth. 12.F.4b

S.8.13.9 – Identify the benefits that space technology has provided for modern society. 13.B.2b, 13.B.3a, 13.A.4c

S.8.13.10 – Describe some uses of satellites orbiting earth and integrate physics concepts into the explanation. 13.B.3a, 13.A.4c

S.8.13.11 – Research and debate whether space exploration is worth the cost. 13.A.4c

Math Curriculum

8th Grade – Pre-Algebra

Focus: ***Numeration and Operation***

Outcome: **M.8.1** Students will use operations, properties, and correct order of operations to evaluate expressions and solve problems.

Components: **M.8.1.1** – Evaluate expressions with a calculator with expressions in the denominator (ex. $\frac{6}{2+8}$ as compared to $\frac{6}{2}+8$)

6.C.3a

M.8.1.2 – Simplify expressions containing integers using order of operations, grouping symbols and properties including the commutative, associative, distributive, zero, and identity properties. 6.A.4, 8.A.3a

M.8.1.3 – Identify and apply the distributive property to simplify expressions. 6.B.3c

Focus: ***Algebra***

Outcome: **M.8.2** Students will use real number properties to solve one- and two-step equations and inequalities including those with integers.

Components: **M.8.2.1** – Solve one-step algebraic equations with integers. 6.B.3a, 8.D.3

M.8.2.2 – Solve inequalities by using the Addition and Subtraction Properties of Inequality. 8.D.3

M.8.2.3 – Solve inequalities by multiplying or dividing by positive and negative numbers. 8.D.3

M.8.2.4 – Graph solutions to integer inequalities on a number line. 8.A.4b

Focus: ***Algebra***

Outcome: **M.8.3** Students will use real number properties to solve one- and two-step equations and inequalities with all forms of rational numbers other than integers.

Components: **M.8.3.1** – Simplify expressions by combining like terms. 8.A.3a

M.8.3.2 – Define and describe rules for operating with rational numbers. 8.A.3a

M.8.3.3 – Apply the basic properties of commutative, associative, distributive, transitive, inverse, identity, zero, equality and order of operations to solve problems. 8.A.3a

M.8.3.4 – Define real numbers and identify a number as rational or irrational. 6.B.3c

M.8.3.5 – Solve one- and two-step algebraic equations with fractions and decimals. 6.B.3a

M.8.3.6 – Solve equations with variables on both sides of the equation. 8.A.3a

M.8.3.7 – Graph solutions for inequalities on a number line. 8.D.4

Focus: ***Algebra***

Outcome: **M.8.4** Students will use properties to evaluate expressions containing powers, exponents and/or square roots with and without technology.

Components: **M.8.4.1** – Evaluate and simplify expressions with exponents. 8.D.3c

M.8.4.2 – Apply the power and quotient rules to exponents to simplify basic expressions such as $\frac{a^5}{a^2}$ *or* $a^5 * a^2$. 8.D.3c

M.8.4.3 – Apply the zero power property of exponents. 8.D.3c

M.8.4.4 – Solve problems using perfect square roots. 8.D.3c

M.8.4.5 – Identify the two consecutive integers that a number is between when taking a square root of a number that is not a perfect square without use of a calculator. 8.D.3c

M.8.4.6 – Identify and find square and cube roots of rational numbers using calculators. 6.B.3c

M.8.4.7 – Write and evaluate large and small numbers in scientific notation. 6.A.3

M.8.4.8 – Convert numbers in scientific notation to standard form. 6.A.3

Focus: ***Data Analysis***

Outcome: **M.8.5** Students will use measures of central tendencies and measures of variability to describe patterns, analyze data, to predict results and to create graphs that depict a real world situation.

Components: **M.8.5.1** – Identify the dependent and independent variables on a graph. 10.A.3a

M.8.5.2 – Gather data and construct graphs using dependent and independent variables. 10.A.3a

M.8.5.3 – Compare data using the measures of central tendency (mean, median & mode) using rational numbers. 10.A.3b

M.8.5.4 – Display and interpret data in a histogram. 10.A.3a

M.8.5.5 – Evaluate data using the measures of variability (range and quartiles) by constructing a box and whiskers graph. 10.A.4a

Focus: ***Geometry***

Outcome: **M.8.6** Students will apply geometric concepts to categorize polygons and to draw conclusions about points, lines, angles, and polygons.

Components: **M.8.6.1** – Use properties to classify two and three dimensional shapes. 9.B.3

M.8.6.2 – Write congruency statements comparing two polygons. 9.A.3c

M.8.6.3 – Solve problems involving congruent polygons. 9.A.3c

M.8.6.4 – Determine the relationship among angles formed by intersecting lines. 9.B.4

M.8.6.5 – Identify, describe, and calculate the measure of an unknown angle, where the unknown angle is expressed as a variable or a simple expression, using angle relationships and properties of polygons. 9.C.3b

M.8.6.6 – Identify and draw transformations involving a reflection across an axis or a rotation around the origin. 9.A.3b

M.8.6.7 – Determine the sum of angle measure in regular polygons by using the formula (n-2)180. 9.C.3b

M.8.6.8 – Apply the Angle Sum Theorem to determine an unknown angle where angles are expressed as an expression such as $2x$ or $(x+1)$. 9.C.3b

Focus: ***Geometry***

Outcome: **M.8.7** Students will apply geometric concepts and formulas including Pythagorean Theorem to solve problems involving area, surface area and volume of two and three dimensional objects.

Components: **M.8.7.1** – Apply the Pythagorean Theorem to find any side of a right triangle. 9.D.3

M.8.7.2 – Apply the Pythagorean Theorem to calculate the area of a triangle with a missing dimension. 9.D.3

M.8.7.3 – Apply circumference formula to calculate a radius given a circumference. 8.D.3b

M.8.7.4 – Determine if a triangle is a right triangle by using the Pythagorean Theorem using decimal approximations. 9.D.3

M.8.7.5 – Given coordinates, graph a plane figure and calculate its area. 7.A.3b, 9.A.3a

M.8.7.6 – Calculate area of composite figures which is composed of combinations of the following shapes: triangles, squares, rectangles, parallelograms, trapezoids, and/or semicircles. 7.A.3b

M.8.7.7 – Identify a base of a 3-dimensional shape. 9.B.3

M.8.7.8 – Apply an appropriate strategy to calculate the surface area of a prism, cylinder or pyramid. 7.A.3b, 7.C.3b

Focus: ***Numeration and Operation – Ratios, Percents and Proportions***

Outcome: **M.8.8** Students will solve a variety of problems by applying ratios, percents and proportions.

Components: **M.8.8.1** – Solve equations using ratios and proportions. 8.D.3b

M.8.8.2 – Write and solve algebraic equations to solve percent problems. 6.D.3

M.8.8.3 – Write and solve algebraic equations to solve real world percent problems. 6.D.4

M.8.8.4 – Construct a simple scale drawing given a relationship described by a scale factor. 8.C.3

M.8.8.5 – Determine the scale factor of similar objects. 7.A.4a

M.8.8.6 – Apply unit multiplier (unit analysis) method to convert from one unit to another. 7.A.4a

M.8.8.7 – Apply unit multiplier method to convert from one rate to another. 7.A.4a

M.8.8.8 – Use mental math to compute and estimate percents (15% and 5%). 6.C.3b

M.8.8.9 – Calculate percent increase and decrease. 6.D.3

Focus: ***Probability***

Outcome: **M.8.9** Students will be able to organize and analyze data using concepts of probability.

Components: **M.8.9.1** – Use a tree diagram to count outcomes to find the probability of an event. 10.C.3a

M.8.9.2 – Apply the Fundamental Counting Principle to count outcomes and to find the probability of an event. 10.C.3a

M.8.9.3 – Analyze situations to make predictions using experimental probability. 10.C.3b

M.8.9.4 – Evaluate expressions containing factorials. 10.C.3a

M.8.9.5 – Analyze the difference between the odds of an event as compared to the probability of an event. 10.C.3a

M.8.9.6 – Calculate the permutation and combination of events. 10.C.4a

Focus: ***Algebra***

Outcome: **M.8.10** Students will solve multi-step equations and inequalities, including those with variables on both sides, and to use formulas to solve real world problems.

Components: **M.8.10.1** – Represent real world problems by using variables and algebraic equations. 8.A.3b

M.8.10.2 – Solve equations with variables on both sides of the equation. 8.A.3b

M.8.10.3 – Identify equations that have no solution or an infinite number of solutions. 8.B.3

M.8.10.4 – Represent real world problems by using variables and algebraic inequalities. 8.A.3b

Focus: ***Algebra***

Outcome: **M.8.11** Students will solve and graph linear equations and identify functions of a line.

Components: **M.8.11.1** – Identify and graph linear equations. 8.D.4

M.8.11.2 – Use a graph to determine the slope of a line. 8.B.3

M.8.11.3 – Use two points on a line to calculate the slope of the line. 8.B.3

M.8.11.4 – Use slope and the y-intercept to write an equation for a line. 8.B.3

M.8.11.5 – Find the y-intercept to graph a linear equation. 8.B.3

M.8.11.6 – Use the slope and a point on the line to write an equation for the line. 8.B.3

Language Arts
Grade 8

Purpose: Students will utilize higher level comprehension skills, strategies, and literary elements to integrate and evaluate all content area material in preparation for the demands of high school.

Focus: Vocabulary

Outcome: **LA.8.1** Students will construct and clarify meaning of unfamiliar words by applying vocabulary strategies to comprehend a variety of text selections.

Components: **LA.8.1.1** – Analyze and construct analogies to deepen understanding of word relationships. 1.A.3a

LA.8.1.2 – Evaluate the appropriateness of a synonym or antonym for a given word. 1.A.3a

LA.8.1.3 – Examine and apply the denotation (literal) and connotation (implied) of a word. 1.A.3b

LA.8.1.4 – Formulate word meanings through the use of a variety of resources (dictionary, thesaurus, encyclopedia, technology resources). 1.A.3b

LA.8.1.5 – Construct the meaning of an unknown word using word, sentence, and cross sentence clues. 1.A.3b

Focus: Word Analysis

Outcome: **LA.8.2** Students will construct and clarify meaning of unfamiliar words by applying vocabulary strategies to comprehend a variety of text selections.

Components: **LA.8.2.1** – Determine the meaning of an unknown word using knowledge of prefixes, suffixes, and base/root words. 1.A.3a

LA.8.2.2 – Use word origins (etymologies) to determine the meanings of words. 1.A.3a

Focus: Comprehension Strategies and Skills

Outcome: **LA.8.3** Students will apply reading skills to improve comprehension of fiction.

Components: **LA.8.3.1** – Identify cause and effect organizational patterns. 1.B.3b

LA.8.3.2 – Identify compare and contrast organizational patterns. 1.C.3e

LA.8.3.3 – Distinguish between main ideas and supporting details of a passage to create a summary. 1.C.3d

LA.8.3.4 – Evaluate the accuracy of a summary for a given text. 1.C.3d

LA.8.3.5 – Formulate a paraphrased version of a given passage.

LA.8.3.6 – Establish a purpose for reading. 1.B.3a

LA.8.3.7 – Read age-appropriate material with fluency and accuracy. 1.B.3d

LA.8.3.8 – Utilize skimming and scanning techniques to gather specific information. 1.B.3a

Outcome: **LA.8.4** Students will apply reading skills to improve comprehension of nonfiction.

Components: **LA.8.4.1** – Identify cause and effect organizational patterns. 1.B.3b

LA.8.4.2 – Identify compare and contrast organizational patterns. 1.C.3e

LA.8.4.3 – Distinguish between main ideas and supporting details of a passage to create a summary. 1.C.3d

LA.8.4.4 – Evaluate the accuracy of a summary for a given text. 1.C.3d

LA.8.4.5 – Formulate a paraphrased version of a given passage.

LA.8.4.6 – Establish a purpose for reading. 1.B.3a

LA.8.4.7 – Utilize skimming and scanning techniques to gather specific information. 1.B.3a

LA.8.4.8 – Use information from functional text (charts, graphs, maps, etc.) to draw conclusions. 1.C.3f

Outcome: **LA.8.5** Students will use strategies to improve comprehension.

Components: **LA.8.5.1** – Apply self monitoring and self correcting strategies to clarify understanding during reading (re-reading, asking questions, context clues). 1.B.3c, 1.C.3a

LA.8.5.2 – Evaluate minor and significant details in a passage and relate them to the meaning of the passage. 1.C.3d

LA.8.5.3 – Construct predictions and inferences based on implicit and explicit details in a passage. 1.B.3a, 1.C.3a

LA.8.5.4 – Relate information in the passage to life, to other readings and/or the world. 1.B.3a

LA.8.5.5 – Synthesize key ideas to form new insights. 1.C.3b, 1.C.3c, 1.C.3d

LA.8.5.6 – Create a visualization to demonstrate understanding of a passage. 1.B.3b

Focus: **Literary Elements**

Outcome: **LA.8.6** Students will demonstrate how literary elements and techniques enhance meaning in a variety of literary works.

Components: **LA.8.6.1** – Evaluate the author's purpose and theme. 2.A.3b, 2.B.3b

LA.8.6.2 – Determine what characters are like by their words, thoughts, motivations, and actions as well as how other characters react to them. 2.B.3c

LA.8.6.3 – Analyze the relationships between antagonist and protagonist characters. 2.B.3c

LA.8.6.4 – Examine the conflict of a story by assessing the types, the effect it has on the plot, and how it is resolved. 2.A.3b

LA.8.6.5 – Evaluate the events in a story to determine how they develop each feature of the plot (exposition, rising action, climax, falling action, resolution). 2.A.3b

LA.8.6.6 – Examine the setting, mood, tone, and point of view of a story to determine how it affects the plot. 2.A.3b

LA.8.6.7 – Examine how examples of irony, flashback, foreshadowing, and symbolism affect the meaning of plot. 1.C.3e, 2.A.3a

LA.8.6.8 – Identify various categories of genre: poetry, drama, science fiction, historical fiction, myth, legend, biography, autobiography, short story, fairy tale, folktale, fable, nonfiction, essay, mystery, and realistic fiction. 2.A.3c

LA.8.6.9 – Explain how figurative language (assonance, euphemisms, metaphors, personification, similes, idioms, onomatopoeia, alliteration, hyperbole, sarcasm, and understatement) contributes to the meaning of a literary selection. 2.A.3a, 2.A.3d

LA.8.6.10 – Respond to literary material from personal, creative and critical points of view. 2.B.3a

Language Arts (Writing)
Grade 8

Purpose: Students will integrate writing components and conventions when authoring multiple genres in preparation for high school.

Focus: Conventions

Outcome: **LAW.8.1** Students will use correct grammar, spelling, punctuation, capitalization and sentence structure.

Components: **LAW.8.1.1** – Utilize the eight basic parts of speech correctly in writing (noun- plurals/possessives, verb - tense, adjective, adverb, pronoun, preposition, conjunction, interjection). 3.A.3

LAW.8.1.2 – Apply correct text layout when writing (paragraphing, quotation marks, underling, parentheses, heading, italics, dialogue punctuation, indenting, appropriate title). 3.A.3

LAW.8.1.3 – Create sentences using proper sentence structure (verb tenses, verb phrases, plurals, possessives, direct/indirect objects, fragments, run-on sentences, sentence types, subject-verb agreement, pronoun antecedent agreement). 3.A.3

LAW.8.1.4 – Use correct spelling for grade appropriate words (abbreviations, contractions, possessives, affixes). 3.A.3

LAW.8.1.5 – Utilize proper punctuation marks when writing (end marks, commas, colons, semi-colons, hyphens, quotation marks, apostrophes). 3.A.3

LAW.8.1.6 – Integrate proper punctuation rules.

Focus: Composition

Outcome: **LAW.8.2** Students will compose well-organized writing for varied purposes and audiences.

Components: **LAW.8.2.1** – Employ the writing process steps to produce work (pre-writing, drafting, revising, editing, publishing). 3.B.3b

LAW.8.2.2 – Demonstrate coherence using organization (grabber, introduction paragraph, thesis statement, topic sentence, body paragraph development, conclusion paragraph, concluding sentence). 3.A.3, 3.B.3a

LAW.8.2.3 – Construct compositions that include essential writing components (focus, ideas, organization, sentence fluency, voice, word

choice, transition words/phrases, mood, tone/style) to connect and unify ideas. 3.B.3a, 3.B.3b

LAW.8.2.4 – Elaborate on written ideas using supporting details, textual support, dialogue, and figurative language. 3.B.3a

Focus: **Writing for a purpose**

Outcome: **LAW.8.3** Students will communicate ideas in writing for a variety of purposes and audiences.

Components: **LAW.8.3.1** – Use appropriate language, details, and format for a specified audience. 3.C.3a

LAW.8.3.2 – Compose a variety of expository composition that inform and explain (e.g., letter writing, research writing, responses/reflections to reading, summary, compare/contrast, note-taking). 3.C.3a

LAW.8.3.3 – Create a variety of fiction and non-fiction narrative pieces that tell a story (e.g., descriptive writing, letter writing, personal narrative). 3.C.3a

LAW.8.3.4 – Write a variety of persuasive compositions that present and support one side of an issue (e.g., compare/contrast, letter writing). 3.C.3a

LAW.8.3.5 – Construct a variety of creative writing pieces.

LAW.8.3.6 – Use available technology to design, produce, revise, and present compositions and multimedia works. 3.C.3b

Focus: **Information**

Outcome: **LAW.8.4** Students will locate, analyze and evaluate information from a variety of sources and organize to communicate in a variety of formats.

Components: **LAW.8.4.1** – Locate and compare information from valid various sources (e.g., dictionary, encyclopedia, thesaurus, interviews, Internet, books, magazines). 5.A.3a, 5.B.3b

LAW.8.4.2 – Utilize learning aids for a source of information (e.g., rubrics, graphic organizers, diagrams, charts).

LAW.8.4.3 – Utilize the research process (topic selection, locate sources, gather information, note taking, source cards, analyze, organize, cite sources, present information). 5.A.3a, 5.B.3a, 5.C.3a, 5.C.3c

LAW.8.4.4 – Compile sources into MLA bibliographic format. 5.B.3b

LAW.8.4.5 – Paraphrase, summarize and quote original work in order to avoid plagiarism.

LAW.8.4.6 – Construct a project using various formats from multiple sources. 5.A.3b, 5.C.3b

Focus: **Speaking**

Outcome: **LAW.8.5** Students will speak effectively using a variety of skills for a variety of purposes.

Components: **LAW.8.5.1** – Incorporate effective speaking skills (intonation, eye contact, pace, appropriate emotion, body language, volume, enunciation). 4.B.3a, 4.B.3d

LAW.8.5.2 – Develop speaking skills through a variety of presentation formats (e.g., speeches, project presentations, group presentations, oral reading, class discussion). 4.B.3a, 4.B.3b

LAW.8.5.3 – Demonstrate techniques to avoid stress and anxiety during speaking. 4.B.3c

LAW.8.5.4 – Organize information for formal presentations (e.g., attention grabber, introduction, body, closing). 4.B.3a

LAW.8.5.5 – Use verbal and nonverbal mediums to communicate ideas (including visual aids and technology). 4.B.3a, 4.B.3d

Focus: **Listening**

Outcome: **LAW.8.6** Students will listen effectively in formal and informal situations.

Components: **LAW.8.6.1** – Critique the relationship between a speaker's verbal communication skills and nonverbal messages. 4.A.3b

LAW.8.6.2 – Integrate active listening strategies (e.g., identify and avoid distracters, provide feedback, pose inquiries, summarize message, use proper body language, maintain eye contact) in a variety of situations. 4.A.3a, 4.A.3d

LAW.8.6.3 – Implement multi-step oral instructions. 4.A.3c

Technology
6th – 8th Grade

Purpose: Students will apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning through the curriculum and implement ISAFE Curriculum.

Outcome: **TMS.1** Students demonstrate a sound understanding of the nature and operation of technology systems.

Components: **TMS.1.1** – Demonstrate use of common peripherals (digital cameras, video projectors) and how they are accessed, controlled, connected, and used effectively and efficiently. 60.A.3a

TMS.1.2 – Select and use appropriate technology tools and information resources to communicate content information appropriately, addressing the target audience and providing accurate citations for sources. 60.A.3b

TMS.1.3 – Select appropriate file formats for a variety of applications as necessary, for effective use in Web, video, audio, graphic, presentation, word processing, database, publication, and spreadsheet applications. 60.A.3c

TMS.1.4 – Demonstrate appropriate keyboarding skills. 60.A.3d

Outcome: **TMS.2** Students demonstrate proficiency in the use of technology.

Components: **TMS.2.1** – Identify strategies and procedures for effective management and maintenance of computer files on a hard drive and network. 60.B.3

TMS.2.2 – Solve basic hardware, software, and network problems that occur during everyday use, i.e. restarting the computer, checking the network cord, or checking that the computer is plugged in. 60.C.3

TMS.2.3 – List ways to protect networks and information from viruses, vandalism, and unauthorized use. 60.C.3

TMS.2.4 – Access online help and user documentation to solve common software problems. 60.C.3

Outcome: **TMS.3** Students practice responsible use of technology systems, information, and software. Students understand the ethical, cultural, and societal issues related to technology.

Components: **TMS.3.1** – Identify legal and ethical issues related to Intellectual properties (i.e., privacy, security, copyright, file-sharing, plagiarism) and recognize consequences of its misuse. 61.B, 61.A.3

TMS.3.2 – Examine issues related to netiquette and discuss means for encouraging more effective use of technology to support effective communication and collaboration. 61.C.3

TMS.3.3 – Understand appropriate use of Cyber communication tools. Example: email, text messaging, blogging.

Outcome: **TMS.4** Students use productivity tools to collaborate in constructing technology enhanced models, prepare publications, and produce other creative works.

Components: **TMS.4.1** – Describe how to use online environments or other collaborative tools to facilitate design and development of materials, models, publications, and presentations. 62.B.3

TMS.4.2 – Apply utilities for editing pictures, images, and charts. 62.B.3

TMS.4.3 – Apply common software features (i.e., spelling and grammar checkers, dictionary, thesaurus, editing options) to maximize accuracy in development of word processing documents. 62.A.3

TMS.4.4 – Apply sorting, formulas and chart generation in spreadsheets. 62.A.3

TMS.4.5 – Insert pictures, movies, sound, and charts in presentation software to enhance communication to an audience, promote productivity, and support creativity, with proper citations. 62.A.3

Outcome: **TMS.5** Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.

Components: **TMS.5.1** – Describe how to use online environments or other collaborative tools to facilitate design and development of materials, models, publications, and presentations. 63.A.3

TMS.5.2 – Know how to use telecommunications tools such as online collaborative environments to exchange data collected and learn curricular concepts by communicating with peers, teachers, experts, and other audiences. (e-mail, blogs, on-line discussion groups) 63.A.3

TMS.5.3 – Apply use of advanced utilities to compress and convert files for a variety of different media and formats.

Outcome: **TMS.6** Students use technology to locate, evaluate, and collect information from a variety of sources.

Components: **TMS.6.1** – Conduct an advanced search using Boolean logic and other search functions to evaluate information from a variety of sources for accuracy, bias, appropriateness, and comprehensiveness. 64.A.3

TMS.6.2 – Select and use information and communication technology tools and resources to collect and analyze information and report results on an assigned hypothesis or research question. 64.C.3

TMS.6.3 – Site sources using APA format.

Outcome: **TMS.7** Students employ technology in the development of strategies for solving problems in the real world.

Components: **TMS.7.1** – Use a variety of media and formats to design, develop, publish, and present products (i.e., presentations, newsletters, web pages) that effectively communicate ideas to multiple audiences. 63.B.3

TMS.7.2 – Compare information from a variety of approved credible Internet sources.

TMS.7.3 – Determine the need for additional information and draw conclusions for addressing real-world problems. 64.B.3

Outcomes: **TMS.8** Students will examine ethical issues related to technology.

Components: **TMS.8.1** – Show proper use of technologies and information (acceptable and unacceptable computer use) through responsible actions. 61.A.2

TMS.8.2 – Use technology to improve their ability to communicate, be productive, or achieve personal goals. 62.C.2

Outcome: **TMS.9** Students will be able to make responsible choices that will lead to safe Internet experiences.

Components: **TMS.9.1** – Read and analyze the importance of the Internet Safety Tips.

TMS.9.2 – Demonstrate the basic concepts of internet safety and possible dangers on the internet.

TMS.9.3 – Engage in interactive group activities that has students recognize and avoid dangerous situations online.

Technology Education
(8th Grade –Semester Elective)

Focus: Career Exploration

Modular Rotation—Research & Development, Robots, Engineering Towers, Flight Technology, Forensic Science, Electricity, Practical Skills, Creative Solutions, Alternative Energy, Engineering Bridges, Music & Sound, Plastics & Polymers, Video Production, Rocket Science.

Purpose: In pairs, students will use computer applications, external components, and teamwork to explore different types of technologies.

Outcome: **TE.1** Students will demonstrate the importance of technologies.

Components: **TE.1.1** – Research, identify and apply the knowledge of various technologies used in industry. 1.B.3a, 1.B.3d, 12.C.3a, 12.C.3b, 12.D.3a, 12.D.3b, 13.B.3d, 13.B.3e, 15.A.3a, 15.A.3c, 15.C.3, 17.A.3a, 17.A.3b, 17.C.3a, 17.C.3b, 17.D.3b, 60.A.1b, 60.A.2a, 60.A.3a, 60.A.3b, 60.C.3, 61.C.1

TE.1.2 – Formulate questions and hypotheses to help bridge the gap between prior knowledge and knowledge gained. 1.C.3a, 1.C.3c, 6.C.3b, 10.A.3c, 10.C.3b, 11.A.3a, 11.A.3c, 11.A.3f, 11.B.3a, 11.B.3b, 11.B.3e

TE.1.3 – Explain the differences between types of technologies.

Outcome: **TE.2** Students will produce examples in each module's activities using construction components.

Components: **TE.2.1** – Identify equipment and materials used in the module. 60.A.4e

TE.2.2 – Explain the safety in using the equipment and material in each module. 61.C.1

TE.2.3 – Use knowledge base to brainstorm and create construction components using proper procedures and materials. 7.A.3a, 7.B.3, 7.C.3a, 9.A.3a, 11.B.3d, 60.A.4c, 62.B.4

TE.2.4 – Apply basic skills at each module for application. 3.C.3b, 4.B.3b, 7.A.3b, 9.A.3c, 9.B.3

Outcome: **TE.3** Students will test and demonstrate knowledge and skills in a given module.

Components: **TE.3.1** – Demonstrate knowledge regarding information about specific technologies. 5.A.3a, 65.A.1

TE.3.2 – Present knowledge through daily quizzes—Research, Challenge, Appication question—and cumulative post tests. 1.A.3b, 6.A.3, 6.B.3a, 6.B.3b, 6.B.3c, 6.C.3a, 8.D.3a, 8.D.3b, 8.D.3c, 9.C.3b, 9.D.3

TE.3.3 – Use graphing skills to read and discern information from a variety of graphs [e.g. bar graph, line graph, pie graph, chart]. 1.C.3f, 10.A.3a

TE.3.4 – Discuss content intelligently with educator using Verbal Performance Assessments.

TE.3.5 – Complete student created projects. (i.e.—Silly Putty, balsa tower/bridge, plastic injected golf tee, and etc.) 65.A.2

Outcome: **TE.4** Students will summarize occupations and careers related to various technologies.

Components: **TE.4.1** – Research and explore occupations and careers related to interests with an emphasis on technologies. 65.B.2

TE.4.2 – Identify skills, practices, and other important and specific information required for careers using technololgies. 61.A.1, 61.A.2, 65.B.1

TE.4.3 – Create project based on the information about selected occupation/career. 3.B.3b, 5.A.3b

TE.4.4 – Evaluate project based on rubric.

Construction Technology

8th Grade (Semester – Elective)

Focus: Introduction to building trades and architecture.

Purpose: Students will apply architectural drawing skills and cooperative learning skills in order to construct a reduced-scale model and learn about other aspects building construction.

Outcome: **CT.1** Students will demonstrate their understanding of architectural design and how it impacts society and the environment.

Components: **CT.1.1** – Distinguish between bearing wall construction and skeleton-framing construction. 1.C.3a

CT.1.2 – Analyze historical architectural designs and famous architects. 13.A.3b

CT.1.3 – Explain how materials affect building designs.

Outcome: **CT.2** Students will use drafting tools to create a freehand architectural drawing.

Components: **CT.2.1** – Compare and contrast the different types of architectural drawings and their uses. 9.B.3

CT.2.2 – Identify the various line types, symbols, and materials used in a floor plan.

CT.2.3 – Interpret an architectural scale to a ¼ scale.

CT.2.4 – Use an architectural scale draw to a ¼ scale house. 4.A.3c, 7.A.3a, 7.B.3, 7.C.3a

CT.2.5 – Produce a floor plan, an elevation drawing, and a sectional drawing. 7.A.3b

Outcome: **CT.3** Students will compare and contrast different framing construction methods used in home construction. 11.B.3b

Components: **CT.3.1** – Differentiate between platform-frame construction, balloon-frame construction, post-and-beam, and timber framing. 13.B.3b

CT.3.2 – List advantages of structural insulated panels.

CT.3.3 – Explain how the use of engineered lumber helps conserve wood resources. 13.B.3c

Outcome: **CT.4** Students will build scale models of buildings. 4.A.3d

Components: **CT.4.1** – Design full scale model or mock up wall section and label its parts.

CT.4.2 – Produce a foam board ¼ scale model home. 9.A.3a, 9.A.3b

CT.4.3 – Produce ¼ scale model building from a kit.

Outcome: **CT.5** Students will demonstrate basic roof framing construction.

Components: **CT.5.1** – Identify the basic roof styles.

CT.5.2 – Develop framing plan for a gable roof, hip roof, and variations that include valleys.

CT.5.3 – Lay out common rafters and corner posts. 9.A.3c, 9.D.3

CT.5.4 – List the advantages of wood as a roof framing material. 13.B.3e

Outcome: **CT.6** Students will research common house wiring circuits with different types of switches.

Components: **CT.6.1** – Explain why wearing eye protection prevents injuries. 11.B.3c

CT.6.2 – Identify the purposes of two and three way switches in the home.

CT.6.3 – Explain how a GFCI is used to prevent shock.

CT.6.4 – Constructing a project, students will demonstrate how circuits should be grounded properly.

CT.6.5 – Evaluate their project based on a rubric.

Outcome: **CT.7** Students will summarize careers related to Construction Technology.

Components: **CT.7.1** – Explore careers related to interests with an emphasis on architectural drawing and the construction trades. 5.A.3b

CT.7.2 – Identify skills and education required for careers in construction technology.

Outcome: **CT.8** Students will use a drafting application to apply their knowledge and learn about current drafting techniques.

Components: **CT.8.1** – Develop an understanding of the virtual drafting world. 60.A.3e, 65.B.1, 65.B.2

CT.8.2 – Explain how Auto Cad is a design and drawing tool. 60.A.4b

CT.8.3 – Apply knowledge to aid in creation of different virtual projects. 4B.3b

CT.8.4 – Evaluate projects.

Multimedia
(8th Grade-Semester Elective)

Focus: Computer 8 Multimedia

Purpose: Student will utilize applications for graphics, digital photography, video and web development, analyze software capabilities and trouble-shoot techniques to synthesize knowledge through the development of real world projects and implement ISAFE Curriculum.

Outcome: **MM.1** Students will design project using vector-based software. MMI STD 01, 02, 03

Components **MM.1.1** – Explore the basic functions of the software. 60.C.2

MM.1.2 – Demonstrate skill development through an assignment assessing technique. 60.A.3d

MM.1.3 – Examine new features and practice proficiency. 60.A.2d

MM.1.4 – Select and design a project provided by the instructor. 65.A.2

MM.1.5 – Classify file formats for print and web environments. 60.A.3c

MM.1.6 – Evaluate the project according to class rubric.

Outcome: **MM.2** Students will design a project using pixel-based software. MMI STD 01, 02, 03

Components: **MM.2.1** – Explore the basic functions of the software. 60.C.2

MM.2.2 – Demonstrate skill development through an assignment assessing technique. 62.A.2

MM.2.3 – Examine new features and practice proficiency. 62.A.1

MM.2.4 – Investigate how to enhance photos, and apply filters and effects. 62.B.2

MM.2.5 – Capture quality digital photos. 62.B.3

MM.2.6 – Select and design a project based on list provided by the instructor. 62.B.4

MM.2.7 – Classify file formats for a print and web environment. 62.B.3

MM.2.8 – Evaluate the project according to class rubric.

Outcome: **MM.3** Students will design a web page using the basic functions of web page software.

Components: **MM.3.1** – Compare the characteristics and features of the software with other known software. MMI STD 01, 02, 03, 04, 05, 06, 07

MM.3.2 – Explain the procedure for web site set-up. 62.A.2

MM.3.3 – Complete a layout using a graphic structure. 62.B.3

MM.3.4 – Execute the development of the web page including the citing of resources. 3.B.4b

MM.3.5 – Evaluate the web site project according to class rubric.

Outcome**:** **MM.4** Students will design a web site using web page software. BWP STD 01, 02, 03, 04, 06, 07

Components: **MM.4.1** – Discuss the elements of design and color theory. 25.A.3e

MM.4.2 – Apply the procedure to set-up a web site.

MM.4.3 – Organize the layout of all pages into a graphic structure. 3.C.4b

MM.4.4 – Compare various methods of navigation for a web site.

MM.4.5 – Evaluate download times, file sizes, and image resolution as it relates to web site development.

MM.4.6 – Execute the development of the web site and cite all copyrighted resources.

MM.4.7 – Evaluate the web site according to class rubric.

Outcome: **MM.5** Students will design a web site to display a personal portfolio, which include all other projects developed during the course.
BWP STD 01, 02, 03, 04, 06, 07
MMI STD 02, 06, 08

Components: **MM.5.1** – List contents of the web site. 3.C.3b

MM.5.2 – Capture images from digital cameras, video cameras, the internet, self-created artwork. 62.B.2

MM.5.3 – Organize the layout of all pages into a graphic structure.

MM.5.4 – Examine the navigation of the web site.

MM.5.5 – Execute the development of the web site and cite all resources.

MM.5.6 – Evaluate the web site according to class rubric.

Outcome: **MM.6** Students will develop a storyboard for a movie project using video presentation software.
BWP STD 01, 02, 03, 04, 06, 07
MMI STD 02, 04, 05, 06

Components: **MM.6.1** – Identify the characteristics and features of the video presentation software. 62.B.4

MM.6.2 – Using sample images and movie clips create an example video project to analyze the operation of the software. 62.B.4

MM.6.3 – Explain and evaluate the importance of organization and development of a storyboard, and citation of copyright material. 65.A.1

MM.6.4 – Select a subject suitable for a movie project. 3.B.3a

MM.6.5 – Execute the development of a storyboard. 3.B.3a

MM.6.6 – Capture quality images using digital cameras, video cameras, the internet, and self-create artwork. 62.B.2

MM.6.7 – Execute the development of video presentation.

MM.6.8 – Evaluate the movie according to class rubric.

Outcome: **MM.7** Students as a team will develop a logo and slogan using graphic illustration software.
MMI STD 02, 04, 05, 06

Components: **MM.7.1** – Select a real or fictitious company to market one product or service. 3.C.4a

MM.7.2 – Describe the characteristics of the targeted market. 3.C.4a

MM.7.3 – Select a name for the product or service. 3.C.4a

MM.7.4 – Design a company logo and explain how it symbolized the company's product or service. 62.B.2

MM.7.5 – Apply the elements of design, color theory in the construction of the logo. 25.A.3e

MM.7.6 – Design and construct the logo using computer software.

MM.7.7 – Classify and apply the file formats for the appropriate print and web environments.

MM.7.8 – Evaluate the project according to class rubric.

Outcome: **MM.8** Students as a team will design a business card for each student of the team relative to their company's product or service.
MMI STD 02, 05, 06

Components: **MM.8.1** – Identify all contact information, logo and slogan. 3.C.4a

MM.8.2 – Design three different layouts of a business card. 25.A.2d

MM.8.3 – Analyze the effectiveness and recommend one layout. 25.A.3e

MM.8.4 – Construct the business card using graphic illustration software for a print environment. 3.C.4a

MM.8.5 – Evaluate the finished product according to class rubric.

Outcome: **MM.9** Students as a team will design letterhead for stationary for their company's product or service.
MMI STD 02, 03, 04, 05, 06

Components: **MM.9.1** – Identify all contact information, logo and slogan. 3.C.4a

MM.9.2 – Design three different layouts for the letterhead. 25.A.2d

MM.9.3 – Analyze the effectiveness and recommend one layout. 25.A.3e

MM.9.4 – Construct the stationary using graphic illustration software for a print environment.

MM.9.5 – Evaluate the finished product according to class rubric.

Outcome: **MM.10** Students as a team will design a magazine advertisement for their company's product or service using pixel-based software.
MMI STD 02, 03, 04, 05, 06

Components: **MM.10.1** – Identify the targeted market. 3.C.4a

MM.10.2 – Select a magazine to produce the company's advertisement relative to the product and targeted market. 3.C.4a

MM.10.3 – Design a layout for the magazine advertisement. 25.A.2d

MM.10.4 – Analyze the effectiveness of all design. 25.A.3e

MM.10.5 – Construct the magazine advertisement for a print environment including the citation of all resources.

MM.10.6 – Evaluate the finished product according to class rubric.

Outcome: **MM.11** Students as a team will develop web site for their company's product or service.
MMI STD 02, 03, 04, 05, 06
BWP STD 01, 03, 04, 05, 06, 07

Components: **MM.11.1** – List contents of the web site. 3.C.4a

MM.11.2 – Capture images using digital cameras, video cameras, the internet, and self-created artwork. 62.B.2

MM.11.3 – Organize the layout of all pages into a graphic structure.

MM.11.4 – Examine the navigation of the web site.

MM.11.5 – Execute the development of the web site including the citation of all resources. 3.B.4a

MM.11.6 – Evaluate the web site according to class rubric.

Outcome: **MM.12** Students as a team will develop a storyboard for commercial using video software.
MMI STD 02, 05, 06

Components: **MM.12.1** – Define the purpose of the commercial. 3.C.3a

MM.12.2 – Explain the message, and connect to the targeted market. 3.C.3a

MM.12.3 – Develop a storyboard.

MM.12.4 – Analyze the storyboard for clarity of message.

MM.12.5 – Evaluate the various exporting options available, and decide the appropriate method.

MM.12.6 – Using video and still cameras and video presentation software, capture quality images and motion clips for a computer presentation. 62.B.2

MM.12.7 – Develop and integrate illustration and digital photography software images. 62.B.2

MM.12.8 – Produce a 30-60 second commercial for their company's product or service.

MM.12.9 – Evaluate the commercial according to class rubric.

Outcome: **MM.13** Students will develop a comprehensive understanding of appropriate use of the Internet and Intellectual Property [IP].
MMI STD 02, 04, 05, 06

Components: **MM.13.1** - Using examples of IP, students will use their current knowledge to determine IP influence on their daily lives.

MM.13.2 – Discuss the definition of Intellectual Property. 3.B.4a

MM.13.3 - Compare copyright verses plagiarism.

MM.13.4 – Examine forms of media.

MM.13.5 – Reflect their use or misuse of IP.

MM.13.6 – Design a portrayal of the students' reflection using electronic media.

MM.13.7 - Evaluate an electronic project that exemplifies students' knowledge and complete the post-assessment on the i-SAFE web site.

Culinary Arts

8th Grade (Semester Elective)

Purpose: Students will acquire the practical skills necessary to provide appealing and healthy meals throughout the lifespan. (NS 8.0, 8.1, 8.2, 8.3, 8.4, 9.0, 9.1, 9.3, 9.4) (ILS 4A1c, 4A2c, 4A3c, 4A4c, 4B1b, 4B2b, 4B3b, 4B4a, 4B5a, 4B5b,4B3d, 4B4d, 4B5d, 3C2a, 3c4a, 3C5a, 3C5b, 1B2a, 1B2c, 1B3c, 1C4c, 1B2a, 1B2c, 1B3c, 4B2c,1A5a, 5A2a, 5A3a, 1C2d, 1C3d, 1C4d, 1Cd. 1c4c, 1C5c, 1C5f , 1C5d, 2B4a,2B5b, 1B5c, 5A2a, 5a3a, 5A3b, 5A4b, 5A5b, 5B5a, 5C5b, 6B3a, 6B4, 6C4, 6D4, 6D5, 6D2, 6D3, 7C3a, 7B2a, 7B5, 7A3b, 7a4b, 7A5, 7B4, 7B5, 7C4b, 7C5a, 8C1, 8C3, 8C4b, 9A2b, 9A5, 9B5, 9C5b, 9A3c, 9C1, 9C2, 9C3a, 9C4c, 9C5a, 9D5, 10a2c, 10a3C, 10A5, 10B3, 10B4, 10B5, 10C4b, 10B1c, 10c1a, 10B1a, 10B2a, 11A1b, 11A2a, 11B2a, 11B4a, 11B4b, 11B1a, 11B5b, 11A3d, 11A3g, 11a4f, 11A5e, 11B4e, 11B4f, 11B5e,115e, 11B3f, 11b4G, 11B5f, 12A3c, 12B3b, 125b, 12F3c, 12F5a, 12F5B, 13A4a, 13A5a, 13B1a, 13B2a, 13B4c, 13B5a, 13B5b. 13B1d, 13B2b, 13B2c, 13B2f, 13B5e, 13B4b 13B2c, 13B3c, 14C2, 14D3, 14D4, 14D5, 14C1, 14C2, 15A1a, 15A2c, 15A3b, 15A3d,15A2a, 15A4a, 15A2b, 15A5a,15C2a, 15C2b, 15C2c, 15C3, 15C4b, 15D2b, 15D3c, 15D5c, 15E3b,15E5b, 15B4a, 15B2a, 15B3b,16C2c, 16C3c, 16D5, 17D5, 18B1a, 18B2a, 18B3a,18B5, 18C3b, 18B1a, 18B3a)

Outcome: **CA.8.1** Students will analyze career paths within the food production and food service industry.

Components: **CA.8.1.1** – Identify career paths within food and nutrition, production and food service industry.

CA.8.1.2 – Examine the impact of technology on nutrition, production, management and food service industry.

CA.8.1.3 – Explore opportunities for employment and entrepreneurial endeavors.

CA.8.1.4 – Research education, training requirements and opportunities for select career paths.

Outcome: **CA.8.2** Students will demonstrate food safety and kitchen sanitation procedures.

Components: **CA.8.2.1** – Differentiate microorganisms that are harmful to the human body and those that cause food to spoil.

CA.8.2.2 – Demonstrate procedures for preparation and storage of raw and cooked food for maximum food safety and sanitation.

CA.8.2.3 – Maintain a safe, sanitary and efficient kitchen.

CA.8.2.4 – Practice personal hygiene and health procedures.

CA.8.2.5 – Demonstrate and evaluate the use of cleaning materials and sanitizers.

CA.8.2.6 – Demonstrate positive work ethics while working with a group in a kitchen lab.

Outcome: **CA.8.3** Students will demonstrate knowledge and skills in individual and family wellness across the lifespan. Students will apply the principles of nutrition science to individuals and groups.

Components: **CA.8.3.1** – Define the six nutrition groups within the food guide pyramid.

CA.8.3.2 – Evaluate how each nutrient group affects health and wellness across the lifespan.

CA.8.3.3 – Differentiate the sources of each essential nutrient group.

CA.8.3.4 – Evaluate food labels and their importance in nutritional importance.

CA.8.3.5 – Demonstrate the importance of good nutrition for the healthy growth and development of young children and adolescents.

CA.8.3.6 – Evaluate the effects of culture and religion on food choices, food preparation and diet.

CA.8.3.7 – Research and analyze diseases related to poor diet and physical inactivity and how they can be prevented.

CA.8.3.8 – Evaluate research according to class rubric.

Outcome: **CA.8.4** Students will plan menus using resources wisely. Students will plan food shopping using appropriate consumer information.

Components: **CA.8.4.1** – Analyze menus using nutritional information.

CA.8.4.2 – Incorporate and promote nutrition into menu planning.

CA.8.4.3 – Prepare and plan a shopping list according to a budget.

CA.8.4.4 – Demonstrate consumerism in food services and purchasing.

CA.8.4.5 – Identify quality factors when selecting food and food service products.

CA.8.4.6 – Evaluate how advertising influences food choices.

CA.8.4.7 – Apply advertising techniques in promoting food and/or food related business.

Outcome: **CA.8.5** Students will demonstrate proper usage of equipment, utensils and dinnerware.

Components: **CA.8.5.1** – Demonstrate proper use, maintenance and cleaning of kitchen equipment, tools and utensils.

CA.8.5.2 – Demonstrate proper usage of cookware, bake ware and kitchen tools.

CA.8.5.3 – Identify appropriate meal service for special occasions.

CA.8.5.4 – Demonstrate proper table manners.

Outcome: **CA.8.6** Students will choose appropriate large and small appliances for use in food preparation. Students will evaluate safety rules and guidelines working around electrical appliances and flame.

Components: **CA.8.6.1** – List small appliances in the kitchen lab and their functions.

CA.8.6.2 – Demonstrate proper care and usage of each appliance.

CA.8.6.3 – Justify the purchase of a small appliance of their choice and explain care and maintenance of the appliance.

CA.8.6.4 – List large appliances in the kitchen lab and their functions. List the care and maintenance of each large appliance.

CA.8.6.5 – Identify safety hazards involved when working with small and large electrical appliances.

CA.8.6.6 – Evaluate safety rules in the kitchen and illustrate how to apply first aid.

CA.8.6.7 – Demonstrate what to do in case of a fire in the kitchen.

Outcome: **CA.8.7** Students will demonstrate understanding of a recipe by collecting appropriate ingredients, food production equipment and using appropriate kitchen appliances.

Components: **CA.8.7.1** – Explain instructions given in a recipe.

CA.8.7.2 – Explain the meaning of basic food preparation terms, abbreviations and measurements.

CA.8.7.3 – Chart the similarities and differences between the various cooking terms.

CA.8.7.4 – List the equipment needed to perform each cooking skill.

Outcome: **CA.8.8** Students will use kitchen math and basic measuring methods when preparing a recipe.

Components: **CA.8.8.1** – Identify two basic systems of measurement.

CA.8.8.2 – Identify units of measurement commonly used in recipes.

CA.8.8.3 – Demonstrate how to increase or decrease recipes using kitchen math skills.

CA.8.8.4 – Analyze the yield of a recipe before and after changing the measurements.

CA.8.8.5 – Identify different types of cups used to measure liquid and dry ingredients.

CA.8.8.6 – Demonstrate correct and accurate measure of dry ingredients, liquid ingredients and solid fats.

CA.8.8.7 – Research recipes, prepare one and serve.

CA.8.8.8 – Evaluate cooking project according to class rubric.

Outcome: **CA.8.9** Students will evaluate characteristics of three different cooking methods. Students determine the best ways to save nutrients when they cook.

Components: **CA.8.9.1** – Analyze a raw potato, baked potato, boiled potato, and a French fry and identify the dynamic differences cooking methods make in a potato.

CA.8.9.2 – Identify how boiling food changes the characteristic of a food.

CA.8.9.3 – Differentiate the appearance of a fried and boiled egg.

CA.8.9.4 – Utilize skill and knowledge to plan a menu for a day using at least three different cooking methods.

CA.8.9.5 – Evaluate menus according to class rubric.

Outcome: **CA.8.10** Students will demonstrate operation of a microwave, choosing appropriate cookware and safety techniques.

Components: **CA.8.10.1** – Examine how the microwave oven uses friction to produce heat.

CA.8.10.2 – Compare and contrast how the microwave versus conventional oven can be a timesaver when cooking or reheating food.

CA.8.10.3 – Select cookware that can be used for microwaving.

CA.8.10.4 – Demonstrate safety techniques for microwaving when cooking a select recipe.

CA.8.10.5 – Demonstrate cleaning, and care of the microwave.

Outcome: **CA.8.11** Students will demonstrate the knowledge and management skills required for food preparation.

Components: **CA.8.11.1** – Research a recipe that contains at least 5 ingredients and three cooking terms.

CA.8.11.2 – Apply kitchen organizational techniques to prepare for cooking a selected recipe.

CA.8.11.3 – Demonstrate methods of cooking.

CA.8.11.4 – Demonstrate altering a recipe to meet the dietary needs of individuals.

CA.8.11.5 – Utilize weights and measures to demonstrate proper scaling and measurement techniques.

CA.8.11.6 – Apply principles of food presentation.

CA.8.11.7 – Demonstrate clean up and maintenance of equipment and appliances according to classroom directions.

CA.8.11.8 – Evaluate recipe, organizational skills, safety and sanitation, cooking techniques, and product appearance according to class rubric.

Outcome: **CA.8.12** Students will demonstrate the knowledge, skills, management and safety requirements in the preparation of foods products.

Components: **CA.8.12.1** – Practice organizational skills to plan a basic lab experience.

CA.8.12.2 – Demonstrate teamwork and cooperation in lab and class activities.

CA.8.12.3 – Appraise and interpret nutritional data.

CA.8.12.4 – Follow a simple recipe.

CA.8.12.5 – Practice correct preparation techniques to preserve nutrients, color, flavor, shape, and texture in food.

CA.8.12.6 – Apply essential cooking terms.

CA.8.12.7 – Apply each method of cooking.

CA.8.12.8 – Utilize kitchen math skills to accurately measure and weigh ingredients.

CA.8.12.9 – Apply the principles of cooking when preparing a variety of foods.

Fashion Design

8th Grade (Semester – Elective)

Focus: Fashion Design, Construction and Merchandising

Purpose: Students will demonstrate competencies necessary in the area of textiles, fashions and fabrics. Careers in the fashion industry will be explored. (NS 11.0, 11.1, 11.3, 11.4, 11.6, 11.7, 12.2, 12.3, 14.1, 14.2, 14.3, 14.4, 14.5. ILS 1A3a, 1A3b, 1B2a, 1B2c, 1B3c, 1C4c, 3A3, 3B3a, 4A3c, 4A3b, 4A3d, 4B1b, 4B2b, 4B3a, 4B3d, 4B4d, 4B5d, 4B2c, 4B2d, 4B3d, 4B4d, 4B5d, 1A5a, 5A2a, 5A3a, 1C2d, 1C3d, 1C4d, 1C5d, 5A3b, 5B5a, 1C4c, 1C5c. 1C5f, 2B4a, !B5c, 5A4b, 5B5a, 5C5b, 13B3c, 15A3a, 15A3b, 15B3b, 15C3, 15D3c, 27A3a, 6D2, 7B2a, 7B5, 8C1, 10.A.2c, 7C3a, 10b1a, 10B2a, 10b3, 10B4, 10b5, 10A5, 10B5.13A4a, 13A5a, 13B4b, 13B2c, 13B3c, 18B5, 13B4b, 13B2c, 13B3c.

Outcome: **FD.1** Students will evaluate characteristics and usage of fibers and fabrics.

Components: **FD.1.1** – Analyze and identify characteristics of major fibers and yarns.

FD.1.2 – Classify natural and synthetic fibers.

FD.1.3 – Compare and contrast knit and woven fabrics.

FD.1.4 – Determine performance characteristics of fiber and textiles.

FD.1.5 – List ways that fibers and fabrics are used other than in clothing.

FD.1.6 – Determine what information about fibers and textiles is necessary to make appropriate selections when purchasing fabric.

Outcome: **FD.2** Students will analyze fabric finishes and performance.

Components: **FD.2.1** – Analyze different dying processes including stock dying, solution dying, yarn dying, piece dying and garment dying.

FD.2.2 – Describe common printing techniques.

FD.2.3 – Explain how a fabric's texture can be changed.

FD.2.4 – Identify finishes that improve a fabric's performance.

Outcome: **FD.3** Students will demonstrate basic sewing techniques.

Components: **FD.3.1** – Identify basic sewing tools and their usage.

FD.3.2 – Demonstrate stitching techniques and their usage.

FD.3.3 – Utilize sewing terminology and measurement when choosing a pattern.

FD.3.4 – Demonstrate use and safe handling of sewing equipment to cut out fabric.

Outcome: **FD.4** Students will employ decision making skills when choosing a pattern for a sewing project.

Components: **FD.4.1** – Choose a pattern to make class project.

FD.4.2 – Evaluate information on pattern envelope for style and skill level.

FD.4.3 – Examine information on pattern envelope for suggested fabric.

FD.4.4 – Determine the correct pattern size by taking body measurements and compare to measurements listed on the envelope.

FD.4.5 – Select fabric for project.

Outcome: **FD.5** Students will apply clothing construction techniques, laying out fabric, pinning on a pattern and cutting out fabric.

Components: **FD.5.1** – Use selected cutting layout diagram and instructions to lay out pattern on fabric.

FD.5.2 – Demonstrate use of pattern markings and symbols to pin pattern on to fabric.

FD.5.3 – Adjust pattern pieces according to body measurements.

FD.5.4 – Follow the correct cutting line to cut out garment.

FD.5.5 – Use fabric pencil to mark symbols or lines and remove pins.

Outcome: **FD.6** Students will operate electrical sewing equipment safely.

Components: **FD.6.1** – Demonstrate knowledge of electrical sewing machine parts and their usage.

FD.6.2 – Utilize skills and knowledge to thread a sewing machine in preparation to sew class project.

FD.6.3 – Demonstrate proper operation of a sewing machine.

FD.6.4 – Use terms, safety rules, and pattern guidelines to construct a basic sewing project.

FD.6.5 – Evaluate the project based on class rubric.

Outcome: **FD.7** Students will use decision making skills appropriate to clothing care.

Components: **FD.7.1** – Identify and demonstrate proper and safe ironing procedures for common fabrics.

FD.7.2 – Demonstrate sewing buttons on fabric.

FD.7.3 – Identify types and use of laundry products including bleaches, detergents, fabric softeners and stain removers.

FD.7.4 – Identify stains and stain removal techniques.

FD.7.5 – Explain clothing care labels.

FD.7.6 – Apply basic laundry procedures by sorting clothes according to colors, temperature and load.

FD.7.7 – Analyze the cost benefits of clothing care.

Outcome: **FD.8** Students will redesign, repair and recycle an existing garment to make it suitable for more wear or use. Students will make simple clothing repairs.

Components: **FD.8.1** – Demonstrate how to shorten a hem.

FD.8.2 – Demonstrate how to sew on a button.

FD.8.3 – List ways to make minor adjustments in a garment's width.

FD.8.4 – Choose an item of clothing to redesign for class project.

FD.8.5 – Redesign the garment using recycled materials, notions and embellishments.

FD.8.6 – Evaluate according to class rubric.

Outcome: **FD.9** Students will employ good decision making skills in the purchasing of clothing and textiles.

Components: **FD.9.1** – Evaluate features when purchasing textiles.

FD.9.2 – Evaluate label information for proper care and maintenance of fabrics.

FD.9.3 – Assess the cost of constructing, altering, or repairing textile products.

FD.9.4 – Describe the advantages and limitations of various clothing stores.

FD.9.5 – List marketing strategies for apparel and textile products.

FD.9.6 – Critique varied methods for promoting apparel and textiles including methods for purchasing and payment.

Outcome: **FD.10** Students will design an outfit for a specific use. Students will employ the elements of color and the principles of design.

Components: **FD.10.1** – Recognize factors affecting clothing choice.

FD.10.2 – Choose an outfit to design.

FD.10.3 – Apply elements of color.

FD.10.4 – Utilize design principles.

FD.10.5 – Demonstrate creative techniques to individualize project.

FD.10.6 – Evaluate project according to class rubric.

Outcome: **FD.11** Students will analyze careers, trends, and technology associated with clothing, and textiles. Students will devise a market plan for a garment.

Components: **FD.11.1** – Explore opportunities for employment and entrepreneur endeavors.

FD.11.2 – Recognize how technology influences changes in the textile and fashion industry.

FD.11.3 – Explore current trends in the fashion industry.

FD.11.4 – Integrate skill and knowledge to design, create and market a textile project.

FD.11.5 – Evaluate project according to class rubric.

Art Curriculum
8th Grade

Purpose: Students will integrate abstract and critical thinking skills while developing self expression in the second and third dimensional.

Outcome: **A.8.1** Students will apply the grid drawing technique in a unique and expressive portrait derived from a photo reference.
25.A.3d, 25.A.3e, 25.B.3, 26.A.3e, 26.B.3d

Components: **A.8.1.1** – Measure and draw a grid on a source image.

A.8.1.2 – Measure and draw a grid to scale on a final paper.

A.8.1.3 – Create a photograph with a digital camera of yourself or another student.

A.8.1.4 – Practice shading.

A.8.1.5 – Show realistic value of the facial features by shading with pencil.

A.8.1.6 – Show realistic proportions of facial features by transferring contour lines of facial features accurately.

A.8.1.7 – Determine mood of photograph.

A.8.1.8 – Accurately depict the facial expression and mood of the photograph.

A.8.1.9 – Analyze artists' self portraits and the methods they used to successfully portray themselves.

A.8.1.10 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.1.11 – Critique your own and other's artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.1.12 – Demonstrate respectful critique behavior.

Outcome: **A.8.2** Students will reinterpret a functional container from everyday life by creating an original three dimensional hollow clay container with a lid.
25.A.3d, 25.B.3, 26.A.3e, 26B.3d, 27.A.3b

Components: **A.8.2.1** – Discuss visual culture examples of functional containers we use every day.

A.8.2.2 – Draw a series of sketches outlining ideas and choose a final idea to conceptualize.

A.8.2.3 – Demonstrate and describe use of clay tools.

A.8.2.4 – Define clay tools.

A.8.2.5 – Apply clay vocabulary when working with clay.

A.8.2.6 – Apply additive and subtractive clay construction techniques to construct a hollow sculpture.

A.8.2.7 – Produce texture in the clay using clay tools and hands.

A.8.2.8 – Prepare bisque ware for kiln by painting with glaze.

A.8.2.9 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.2.10 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.2.11 – Demonstrate respectful critique behavior.

Outcome: **A.8.3** Students will draw a series of gesture drawings of the human form showing proportion, movement, form and value.
25.A.3d, 25.B.3, 26.A.3e, 26.B.3d

Components: **A.8.3.1** – Demonstrate gesture drawing techniques: scribble and mass.

A.8.3.2 – Create a drawing of a live model showing form.

A.8.3.3 – Compose a series of 3-5 short duration drawings that show movement.

A.8.3.4 – Complete a longer duration drawing showing realistic value and proportion.

A.8.3.5 – Show three dimensional texture using two dimensional drawing techniques.

A.8.3.6 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.3.7 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.3.8 – Demonstrate respectful critique behavior.

Outcome: **A.8.4** Students will research a particular artist and create an artwork inspired by the artist.
25.A.3d, 25A.3e, 25.B.3, 26.A.3e, 26.B.3d, 27.A.3a, 27.A.3b, 27.B.3

Components: **A.8.4.1** – View a variety of artists' work and choose one artist to focus on.

A.8.4.2 – Research background information about an artist using print media and the internet.

A.8.4.3 – Summarize important points about the artist in a written paper.

A.8.4.4 – Present the information about the artist orally to classmates.

A.8.4.5 – Plan and design an artwork inspired by the artist through a series of sketches and discussions.

A.8.4.6 – Create an artwork mimicking the techniques and colors used by the artist researched.

A.8.4.7 – Mix and match colors of paint to a source image.

A.8.4.8 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.4.9 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.4.10 – Demonstrate respectful critique behavior.

Outcome: **A.8.5** Students will symbolize their own family members and family relationships through a mixed media artwork.
25.A.3d, 25.A.3e, 25.B.3, 26.A.3e, 26.B.3d, 27.A.3b

Components: **A.8.5.1** – Create a chart of family members and ways to represent them visually.

A.8.5.2 – Collect physical materials that represent your family members.

A.8.5.3 – Combine collected materials with created elements in a mixed media artwork.

A.8.5.4 – Reflect upon symbolic connections made and family relationships.

A.8.5.5 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.5.6 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.5.7 – Demonstrate respectful critique behavior.

Outcome: **A.8.6** Students will arrange motifs of personal significance in a decorative artwork that balances positive and negative space.
25.A.3e, 25.B.3, 26.A.3e, 26.B.3d

Components: **A.8.6.1** – Sketch motifs that have personal significance to you.

A.8.6.2 – Simplify motifs to an aesthetically pleasing (decorative) design.

A.8.6.3 – Arrange motifs in a balanced two dimensional composition.

A.8.6.4 – Differentiate between radial/asymmetrical/symmetrical balance.

A.8.6.5 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.6.6 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.6.7 – Demonstrate respectful critique behavior.

Outcome: **A.8.7** Students will create a series of drawings showing a variety of ways to arrange a composition. 25.B.3, 26.A.3e, 26.B.3d

Components: **A.8.7.1** – Experiment with different ways to balance a composition: radial balance, symmetrical balance, asymmetrical balance.

A.8.7.2 – Practice drawing with a viewfinder.

A.8.7.3 – Create a series of drawings showcasing different ways to frame an object.

A.8.7.4 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.7.5 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.7.6 – Demonstrate respectful critique behavior.

Outcome: **A.8.8** Students will create an additive sculpture using mixed media with an armature as a base. 25.A.3d, 25.B.3, 26.A.3e, 26.B.3d

Components: **A.8.8.1** – Create a series of sketches.

A.8.8.2 – Construct an armature for the sculptural base.

A.8.8.3 – Apply at least two types of media to decorate the surface of the sculptural base.

A.8.8.4 – Analyze your art when it is finished focusing strength and weaknesses.

A.8.8.5 – Critique your own and others' artwork through discussion, giving advice and opinion and using the appropriate artistic vocabulary.

A.8.8.6 – Demonstrate respectful critique behavior.

Outcome: **A.8.9** Students will compare and contrast different images and explore their origins, historical contexts, and resulting implications and influences. 25.A.3e, 25.B.3, 27.A.3a, 27.A.3b, 27.B.3

Components: **A.8.9.1** – Hypothesize different artists' reasons and influences for creating imagery.

A.8.9.2 – Analyze how art movements and trends have affected the way of life.

A.8.9.3 – Give examples of imagery from visual culture that illustrate fine art conventions.

A.8.9.4 – Produce examples of different career applications available to artists today.

7th and 8th Grade Choir
(Secondary)

Purpose: Students will acquire basic choral skills, including vocal production, note reading and performance of a varied repertoire of music.

Outcome: **SC.1** Students will analyze musical concepts in a wide variety of choral literature through the use of singing and classroom assessment.

Components: **SC.1.1** – Identify the following musical concepts: 25.A.3c

- Rhythm
- Melody
- Dynamics
- Style
- Tempo
- Diction
- Voicing

SC.1.2 – Apply musical concepts to historical, social, and cultural contexts. 25.A.3c

Outcome: **SC.2** Students will perform a variety of music with melodic, rhythmic, and expressive qualities.

Components: **SC.2.1** – Apply most note names on treble staff. 26.A.3d

SC.2.2 – Demonstrate correct rhythms in 2/4, 4/4, 6/8 and ¾: 26.A.3d

- Whole note/rest
- Half note/rest
- Quarter note/rest
- Eighth note/rest

SC.2.3 – Identify clef and most note names on staff. 26.A.3d

SC.2.4 – Apply dynamics of *pp, p, mp, mf, f* to music. 26.A.3d

SC.2.5 – Demonstrate style of legato, staccato, and accent. 26.A.3d

SC.2.6 – Demonstrate correct tempi. 26.A.3d

SC.2.7 – Compare and contrast a variety of music with the performance selections. 26.A.3d

Band
8th Grade

Purpose: Students will apply instrument skills to read and improvise music using increasingly complex melodies, harmonies, rhythm and phrasing. Students will apply listening to evaluate music components.

Focus: Listening, improvisation, reading and composition.

Outcome: **B.8.1** Students will analyze musical concepts in a wide variety of band literature through the use of listening logs.

Components: **B.8.1.1** – Identify the following musical concepts: 25.A.3c

- Rhythm
- Melody
- Intonation
- Instrumentation
- Chord progression
- Dynamics
- Style
- Tempo

B.8.1.2 – Apply musical concepts to historical, social, and cultural contexts. 25.B.3, 27.A.3b, 27.B.3

B.8.1.3 – Evaluate self-recordings for use of musical concepts. 25.A.3c, 26.A.3c, 26.B.3c, 26.A.3d

Outcome: **B.8.2** Students will perform a variety of music with melodic, rhythmic, and expressive qualities.

Components: **B.8.2.1** – Apply note names on staff to instrument fingerings. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.2 – Demonstrate correct rhythms in 2/4, 2/2, 6/8, 4/4, ¾, 3/8: 25.A.3c, 26.A.3d, 26.B.3c

- Whole note/rest
- Half note/rest
- Quarter note/rest
- Eighth note/rest
- Sixteenth note/rest

B.8.2.3 – Identify key signature, clef, and note names on staff. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.4 – Apply to dynamics of *p, mp f, mf* to music. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.5 – Demonstrate style of legato, staccato, and accent. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.6 – Demonstrate correct tempos. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.7 – Demonstrate improvisation of basic chord progressions. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.8 – Apply knowledge of scale and key signature to musical selections. 25.A.3c, 26.A.3d, 26.B.3c

B.8.2.9 – Compare and contrast a variety of music with the performance selections. 25.A.3c, 26.A.3d, 26.B.3c, 27.A.3a, 27.A.3b, 27.B.3

Outcome: **B.8.3** Students will compose an original piece of music the melodic, rhythmic and expressive qualities.

Components: **B.8.3.1** – Apply note names on staff to instrument fingerings. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.2 – Demonstrate correct rhythms in one of the following: 2/4, 2/2, 6/8, 4/4, ¾, 3/8: 25.A.3c, 26.A.3d, 26.B.3c

- Whole note/rest
- Half note/rest
- Quarter note/rest
- Eighth note/rest
- Sixteenth note/rest

B.8.3.3 – Demonstrate correct notation of notes and rest on staff. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.4 – Apply key signature and clef for instruments in a composition. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.5 – Apply dynamics of one or all of the following in music composition: *p, mp f, mf*. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.6 – Apply one or all of the following styles in the composition: legato, staccato, marcato, and accent. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.7 – Apply correct tempo for the style of composition with any of the following: allegro, moderato, largo. 25.A.3c, 26.A.3d, 26.B.3c

B.8.3.8 – Demonstrate basic knowledge of chord structure. 25.A.3c, 26.A.3d, 26.B.3c

Middle School - Jazz Band

Purpose: Students will apply listening, improvisation, reading and composition skills using a variety of jazz band literature.

Outcome: **MSJ.1** Students will analyze musical concepts in a wide variety of jazz band literature through the use of listening logs.

Components: **MSJ.1.1** – Identify the following musical concepts: 25.A.3c

- Rhythm
- Melody
- Instrumentation
- Chord progression
- Dynamics
- Style:
  - Swing, Latin, Rock, Ballad
- Tempo
- Intonation
- Balance and Blend

MSJ.1.2 – Apply musical concepts to historical, social, and cultural contexts. 25.B.3, 27.A.3b, 27.B.3

MSJ.1.3 – Evaluate self-recordings for use of musical concepts. 25.A.3c, 26.A.3c, 26.B.3c, 26.A.3d

Outcome: **MSJ.2** Students will perform a variety of music with melodic, rhythmic, and expressive qualities.

Components: **SJ.2.1** – Apply note names on staff to instrument fingerings. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.2 – Demonstrate correct rhythms in 2/4, 2/2, 6/8, 4/4, ¾, 3/8: 25.A.3c, 26.A.3d, 26.B.3c

- Whole note/rest
- Half note/rest
- Quarter note/rest
- Eighth note/rest
- Sixteenth note/rest

MSJ.2.3 – Identify key signature, clef, and note names on staff. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.4 – Apply to dynamics of *p, mp, f, mf* to music. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.5 – Demonstrate style of legato, staccato, and accent. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.6 – Demonstrate correct tempos. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.7 – Demonstrate improvisation of complex chord progressions. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.2.8 – Compare and contrast a variety of music among the performance selections. 25.A.3c, 26.A.3d, 26.B.3c, 27.A.3a, 27.A.3b, 27.B.3

Outcome: **MSJ.3** Students will compose an original piece of music the melodic, rhythmic and expressive qualities.

Components: **MSJ.3.1** – Apply note names on staff to instrument fingerings. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.2 – Demonstrate correct rhythms in one of the following: 2/4, 2/2, 6/8, 4/4, ¾, 3/8: 25.A.3c, 26.A.3d, 26.B.3c

- Whole note/rest
- Half note/rest
- Quarter note/rest
- Eighth note/rest
- Sixteenth note/rest

MSJ.3.3 – Demonstrate correct notation of notes and rest on staff. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.4 – Apply key signature and clef for instruments in a composition. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.5 – Apply dynamics of one or all of the following in a music composition: *p, mp, f, mf.* 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.6 – Apply one or all of the following styles in the composition: legato, staccato, marcato, and accent. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.7 – Apply correct tempo for the style of composition with any of the following: allegro, moderato, largo. 25.A.3c, 26.A.3d, 26.B.3c

MSJ.3.8 – Demonstrate basic knowledge complex chord structures. 25.A.3c, 26.A.3d, 26.B.3c

Health
8th Grade

Focus: **Diseases, Body Systems & Fitness**

Purpose: Students will determine the causes and effects of both communicable and non-communicable diseases. Students will correlate the benefits of lifetime fitness on the body systems.

Outcome: **H.8.1** Students will establish positive heath practices and available health care that can help reduce health risks.

Components: **H.8.1.1** – Identify, define and categorize communicable and non-communicable diseases. 22.A.2b

H.8.1.2 – Determine ways to protect against obtaining and transmitting diseases. 22.A.2c

H.8.1.3 – List proactive lifestyle choices that can reduce the chances of obtaining non-communicable diseases. 22.A.3b

H.8.1.4 – Identify treatments for communicable and non-communicable diseases. 22.A.3c

Outcome: **H.8.2** Students will classify the types of sexually transmitted diseases including modes of transmission and treatment options. Students will explain why abstinence is beneficial.

Components: **H.8.2.1** – Describe HIV transmission and its effects on the immune system. 23.A.3

H.8.2.2 – Outline the progression of HIV to AIDs and list treatment options. 23.B.3

H.8.2.3 – Categorize the risk factors, transmission modes and symptoms common to STDs. 22.A.3b

H.8.2.4 – List possible long term affects and available treatment for common STDs. 22.A.3a

H.8.2.5 – Define abstinence and list positive benefits abstinence provides on all sides of the health triangle. 22.A.3a, 24.B.3

Outcome: **H.8.3** Students will analyze the effects of their lifestyle choices on the body systems.

Components: **H.8.3.1** – Demonstrate the understanding of the body systems and their functions. 23.A.3

H.8.3.2 – Categorize different parts of the body and their body system. 23.A.3

H.8.3.3 – List effects of a sedentary lifestyle on the body systems. 23.B.3

H.8.3.4 – Determine the effects of nutrition on the body systems. 23.B.3

Outcome: **H.8.4** Students will assess changes in individual exercise by applying fitness principles.

Components: **H.8.4.1** – Demonstrate understanding of the FITT principles. 24.B.3, 20.A.3a

H.8.4.2 – Participate in physical activity and measure the effects of fitness on the body. 21.B.3

H.8.4.3 – Monitor effects of exercise by adjusting the different FITT principles. 20.B.3a

H.8.4.4 – Determine which FITT principles can improve personal fitness goals. 24.B.3

Outcome: **H.8.5** Students will develop a fitness profile that addresses the strengths and weaknesses of their personal wellness.

Components: **H.8.5.1** – Determine current physical activities that each individual is participating in. 23.C.3, 20.A.3b

H.8.5.2 – Identify personal nutritional decisions and their possible effects on the body. 23.B.3

H.8.5.3 – Develop personal short-term and long-term nutritional goals. SES 1.C.3a

H.8.5.4 – Develop personal short-term and long-term fitness goals. SES 1.C.3a

Outcome: **H.8.6** Students will evaluate their fitness plan and apply fitness principles to increase their overall fitness level.

Components: **H.8.6.1** – Determine current fitness level. 23.A.3

H.8.6.2 – Identify targeted areas for improvement and create a fitness plan. 20.C.3a

H.8.6.3 – Apply fitness principles to an individual fitness plan to improve personal wellbeing. 20.B.3b

H.8.6.4 – Identify opportunities within the community to apply a personal fitness plan. 20.C.3b, SES 1.B.3b

Middle School Physical Education Curriculum

Purpose: Students will analyze and improve their own fitness levels by combining knowledge of game rules with personal fitness skills. They will demonstrate and value teambuilding through sportsmanship and responsibility.

Outcome: Students will demonstrate competence of game rules through proper game play in both group and independent settings. 19.C.3a, 19.C.3b

- Basketball
- Badminton
- Matball
- Handball
- Ping Pong
- Football
- Track
- Fitness Games
- Volleyball
- Soccer
- Softball

Components: **1.1** – Demonstrate their knowledge of the rules prior to activity. 19.C.3a, 19.C.3b

1.2 – Demonstrate game rules through participation with others. 19.C.3a, 19.C.3b

1.3 – State game rules to others during activities. 19.C.3a, 19.C.3b

1.4 – Monitor and adjust game play to coincide with game rules. 19.C.3a, 19.C.3b 20.A.3b

Outcome: Students will improve their personal fitness level through analyzing and evaluating their intensity during activities. 20.A.3a 20.B.3a, 20.C.3a 20.C.3c

- Basketball
- Badminton
- Matball
- Handball
- Ping Pong
- Football
- Fitness Bikes
- Track
- Fitness Games
- Volleyball
- Soccer
- Softball
- Fitness Testing

Components: **2.1** – Monitor heart rate during game play. 20.B.3a

2.2 – Compare heart rate level to suggested heart rate levels during activity. 20.B.3a, 20.C.3c

2.3 – Adjust personal intensity during game play to increase their desired fitness level. 20.B.3a, 20.B.3b

2.4 – Analyze personal fitness testing scores to identify areas of improvement. 20.C.3a

Outcome: Students will demonstrate responsibility and sportsmanship in class preparation and participation. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

- Basketball
- Badminton
- Matball
- Handball
- Ping Pong
- Football
- Softball
- Fitness Bikes
- Fitness Testing
- Track
- Fitness Games
- Volleyball
- Soccer

Components: **3.1** – Show responsibility in preparing for class by having a uniform, shoes, and lock. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

3.2 – Demonstrate sportsmanship by working collaboratively with teammates during game play. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

3.3 – Respect equipment through proper care for and use of equipment. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

3.4 – Demonstrate a positive competitive attitude in all game play situations. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

3.5 – Demonstrate teamwork through acceptable interpersonal communication skills with others. 21.A.3a, 21.A.3b, 21.A.3c, 21.B.3

World Languages
(7th & 8th Grade)

Outcome: **WL.1** Students will identify language origins and their relationships. Students will make cultural and language connections and identify cultural legacies in the U.S. Students will analyze similarities and differences in the structure of various languages.

Components: **WL.1.1** – Identify locations where certain languages are spoken. 29.E.2

WL.1.2 – Categorize languages based on origins and similarities. 28.A.1a

WL.1.3 – Define and recognize cognates and 'false friends'. 28.C.1b

WL.1.4 – Identify and analyze cultural, historical, and language legacies within the U.S. 16.D.1(W)

WL.1.5 – Describe the reasons and benefits of language learning. 30.B.1b

WL.1.6 – Compare and contrast different scripts and structures used in languages. 28.A.1a

Outcome: **WL.2** Students will use Spanish and German vocabulary to include colors, greetings, numbers, and other basic conversational themes when speaking and listening. Students will demonstrate proper use of the basic language conventions (conjugation, pronunciation, etc.) for the phrases learned.

Components: **WL.2.1** – Pronounce the alphabet in each language. 28.B.1b

WL.2.2 – Use appropriate greetings and leave takings for the time of day. 28.B.1a, 28.B.2a

WL.2.3 – Ask and respond to simple conversational questions (i.e., How are you? What's your name? etc…) 28.B.2b, 28.B.1a

WL.2.4 – Identify the basic colors in the target languages. 28.D.1a, 28.D.1b

WL.2.5 – Use the cardinal numbers between 0-30. 28.D.1a, 30.A.1b

WL.2.6 – Apply vocabulary to their personal lives and/or surroundings. (i.e., Family tree or school supplies) 28.D.1b

Outcome: **WL.3** Students will make cultural connections between Spanish and German societies and their own. Students will compare and contrast Spanish and German seasonal holidays and traditions with American ones.

Components: **WL.3.1** – Analyze American traditions for Spanish and/or German influences. 18.A.3

WL.3.2 – Identify important contributions by Spanish and German speaking persons. 18.C.3b

WL.3.3 – Describe major target language festivals and traditions taking place during the quarter. 29.A.3

WL.3.4 – Analyze cultural conventions through their language components. 28.B.2c