## SARGENT MIDDLE/HIGH SCHOOL COURSE DESCRIPTION BOOKLET 2024-2025



#### The Mission

Inspire students to care more, learn more, and experience more in a safe and engaging learning environment.

#### The Vision

Dig deeper to explore passions that lead to lifelong learning and success.

NOTE: Please understand that a course mentioned in this booklet may be eliminated from school offerings each year

## **ENGLISH**

**ENGLISH 9**: 1.0 English credit. *Required*.

**Description:** Students in Freshman English will become clear, coherent, and proficient writers by the end of their freshman year. Students will work toward this goal through grammatical and usage analysis of writing assessments, journaling, writing coherent paragraphs (narrative, descriptive, expository, and persuasive), five-paragraph essays, and brief research assignments. Vocabulary word study is included in the context of their literature assignments. Students will read a variety of literary genres, including drama, fiction, non-fiction, short stories, essays, and poetry. Standard literature included in the freshman year includes The Lord of the Flies, Night, Shakespeare's Romeo and Juliet, Of Mice and Men, and a variety of short stories.

**ENGLISH 10:** 1.0 English credit. *Required*.

Prerequisite: English 9

**Description:** Students in Sophomore English will continue to improve their writing skills, with greater emphasis on research writing. They will continue their study of Standard English and writing through, journaling, essays, and larger research assignments. Students will continue reading classics of literature from a variety of genres, including drama, fiction, non-fiction, short stories, essays, and poetry. Standard literature included during the sophomore year includes To Kill a Mockingbird, Shakespeare's Julius Caesar, Fahrenheit 451, The Great Gatsby, and a variety of short stories.

**ENGLISH 11**: 1.0 English credit. *Required*.

Prerequisite: English 9, 10

**Description**: Students in English 11 will study American literature from a historical perspective. Literary criticism, and expository writing skills will be continued to be worked on. Students will be engaged with analyzing the emerging and changing themes found throughout American Literature and reflect through writing and oral presentation their findings within each chronological event. Standard literature included during junior year includes Into the Wild, The Catcher in the Rye, and The Old Man and the Sea.

**ENGLISH 12:** 1.0 English credit **Prerequisite:** English 9, 10, 11

**Description:** Prepared graduates in English 12 will interpret and evaluate complex literature and a wide range of informational text using various critical reading strategies. Through the exploration of these texts students will understand how language influences the comprehension of narrative, argumentative, and informational texts. Students will also engage in writing a variety of texts. These will include: thoughtful, well-developed arguments that support

knowledgeable and significant claims, anticipating and addressing the audience's values and biases; informative/explanatory texts to examine and convey complex ideas through the effective selection, organization, and analysis of content; engaging and significant real or imagined narratives that build toward a particular tone or outcome; synthesize multiple, authoritative literary and/or informational sources to answer questions or solve problems, producing well-organized and developed research projects that defend information, conclusions, and solutions. Students will complete these writing pieces by using a recursive writing process to produce, publish, and update individual or shared writing projects in response to ongoing feedback. Throughout the entire course students will integrate credible, accurate information into appropriate media and formats to meet an audience's needs by following collaborative guidelines to ensure a hearing of a full range of positions on a topic or issue, and evaluate responses. APA formatting will be introduced and focused on to further develop research skills through literary studies and exposure to different writing genres. As well as, continued emphasis on skills to become real world writers and preparedness for post-secondary livelihoods.

## TSC ENG 121- English Composition I Concurrent Enrollment Class: .5 High School

English Credit

Prerequisite: Administrative approval

**Description**: English 121 is a college level course that emphasizes the planning, writing, and revising of compositions, including the development of critical and logical thinking skills. This course includes a wide variety of compositions that stress analytical, evaluative, and persuasive/argumentative writing. This is a statewide Guaranteed Transfer course in the GT-CO1 category.

## TSC ENG 122- English Composition II Concurrent Enrollment Class: .5 High School

**English Credit** 

**Prerequisite:** Administrative approval

**Description:** English 122 is a college level course that expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative, and/or argumentative compositions. This course is approved as part of the Colorado Statewide Guaranteed Transfer curriculum GT-C02.

#### **ENGLISH PROGRAM SCOPE AND SEQUENCE:**

9th Grade: English 9 10th Grade: English 10 11th Grade: English 11

12th Grade: English 12 or TSC ENG 121/122

## **MATHEMATICS**

**ALGEBRA I:** 1.0 mathematics credit. *Required*.

**Description:** Algebra I is designed to develop students' foundational understanding of algebraic concepts and problem-solving skills. This course focuses on the fundamental principles such as numerical and algebraic expressions, equations in one variable, relations and functions, linear and nonlinear functions, creating linear equations, linear inequalities, systems of linear equations and inequalities, exponents and roots, exponential functions, polynomials, quadratic functions, and statistics.

**GEOMETRY**: 1.0 mathematics credit. *Required*.

Prerequisite: Algebra I

**Description:** This course emphasizes deductive reasoning, critical thinking and problem solving-skills through the study of the following topics: Tools in Geometry: points, lines, planes, line segments, distance, midpoints, and bisectors; Angles and Geometric figures: angles congruence and angles relationships, two dimensional figures, transformations in the plane, surface, and volume of three-dimensional figures. Logical Arguments and Line Relationships: conjecture and counterexample, statement, conditionals, and biconditionals, deductive reasoning, writing proofs, proving segments and angle relationships, parallel lines and transversal, slopes, and equations of lines, proving lines parallel, perpendicular and distance; Transformations and Symmetry: reflections, translations, rotations, composition of transformations, tessellations, and symmetry. Triangles and Congruence: angles of triangles, congruent triangles, proving triangles congruent: ASA, AAS, proving right triangles congruent, isosceles and equilateral triangles, and triangles and coordinate proofs; Relationships in Triangles: perpendicular and angle bisectors, median and altitude, inequalities in one triangle, indirect proof, the triangle inequality, and inequalities in two triangles; Quadrilaterals: angles of polygons, parallelograms, tests for parallelograms, rectangles, rhombi and squares, trapezoids and kites; Similarity: dilations, similar polygons, similar triangles: AA, SSS and SAS, triangle proportionality, and parts of similar triangles. Right Triangles and Trigonometry: geometric mean, Pythagorean theorem and its converse, coordinate in space, special right triangles, applying trigonometry, the law of sines and cosines; Circles: circumference, angles, arcs, chords, inscribed angles; Measurement: area of quadrilateral, regular polygon, circles and sectors, cross section and solid revolution, applying similarity to solid figures, and density; and Probability: sample space, probability and counting, geometric probability, permutations and combinations, multiplication rule, addition rule, conditional probability and two-way frequency table.

ALGEBRA II: 1.0 mathematics credit. Required

**Prerequisite:** Algebra I, Geometry and/or Teacher approval **Equipment**: Graphing Calculator TI-83 or higher suggested

**Description:** Algebra II is a step beyond Algebra I, delving deeper into advanced algebraic techniques and mathematical principles. This course focuses on exploring relations and functions; linear equations, inequalities, and systems; quadratics functions; polynomials and

polynomial functions; polynomial equations; inverse and radical functions; rational functions; inferential statistics; trigonometric functions; and trigonometric identities and equations.

**ALGEBRA III:** 1.0 mathematics credit **Prerequisite**: Algebra I, Geometry, Alg II

**Description:** Review, expand, and improve upon understanding of Algebra I, Geometry, and Algebra II and then introduce elements of Precalculus. Topics including solving equations in one variable, modeling real world situations, inequalities, absolute values, graphing equations, polynomial manipulation, systems of equations, circles, piecewise functions, complex numbers, solving quadratics, rational functions, properties of exponents and radicals, angles, arcs, triangles, trigonometric ratios and functions, logarithmic functions, and exponential functions

#### PRE-CALCULUS: 1.0 mathematics credit

**Prerequisite:** Algebra I, Geometry, Algebra II. In addition to Algebra III and/or 500 on the PSAT/SAT, or teacher approval

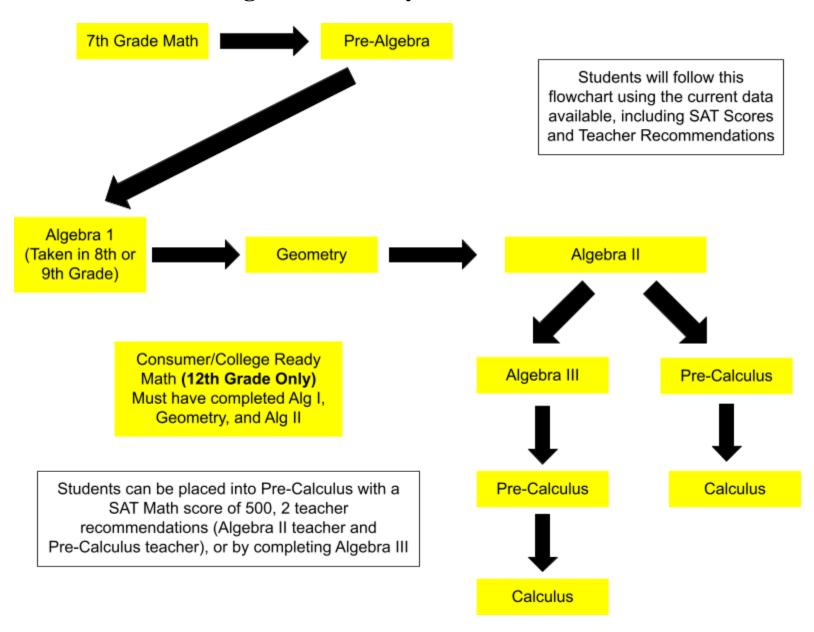
Equipment: Optional graphing Calculator TI-83 or higher required

**Description**: Integrates statistical and algebraic concepts, and previews calculus in work with functions and intuitive notions of limits. Enough trigonometry is available to constitute a standard pre-calculus course in the areas of trigonometry and circular functions. Analysis of functions including exponential, logarithmic, logistic, trigonometric, and polynomial functions will be emphasized.

**AP CALCULUS A/B:** 1.0 mathematics credit. Weighted grade. Only offered as needed. **Prerequisite:** Algebra I, Geometry, Algebra II. In addition to Pre-Calculus and/or teacher approval

**Description:** Review of functions and applications. Study of limits leading to differential calculus and integral calculus. Applications including optimization, volumes of solids of revolution, and work will be included. Graphing calculator required.

## **Sargent Secondary Math Flowchart**



## **SCIENCE**

PHYSICAL SCIENCE/LAB: 1.0 Science credit. Required.

**Lab Fee**: \$15

**Description:** This class serves as an introduction to the topics of Physics and Chemistry. Generally one semester of coursework on each subject. Students will be expected to participate fully in a number of laboratory activities as well as classroom work.

**BIOLOGY/LAB:** 1.0 Science credit. *Required*.

Prerequisite: Physical Science

Lab Fee: \$15

**Description**: Curriculum will include content, laboratory inquiry exercises, biotechnology, discussions of issues and decision making of current topics in biology, diversification (classification), unity that characterize life, cells and organisms, principles of heredity, relationships among organisms and their interactions with their physical environment.

EARTH SCIENCE/LAB: 1.0 Science credit

Lab Fee: \$15

**Description:** This class covers four major units: surface processes, the atmosphere, resources, and space. Students will be expected to participate in a number of laboratory activities as well as classroom work.

CHEMISTRY: 1.0 Science credit.

**Prerequisite:** Algebra II or teacher approval.

Lab Fee: \$15

**Description:** Chemistry covers 4 major units: The structure and properties of matter, chemical bonding, chemical reactions, and Energy and Matter Interactions. This course is designed to prepare the student for a general chemistry course at the college level. Students will be expected to participate in classwork as well as a number of laboratory activities.

#### **HUMAN ANATOMY AND PHYSIOLOGY:** 1.0 Science credit.

**Prerequisite:** Algebra II or teacher approval.

Lab Fee: \$15

Description: Learn the anatomy and physiology of the human body, maladies that affect the

body systems and dissect animals that provide an analog to the human body

INTRO TO FORENSIC SCIENCE: 1.0 Science credit. **Prerequisites:** Biology and Algebra II or teacher approval.

Lab Fee: \$15

**Description**: Forensic Science is a hands-on laboratory and project-based learning course that will lead the student through a foundation of law and criminal justice, history of forensics, and modern scientific advances in the field. Hair, fibers, DNA, ballistics, serology, poisons, drugs, arson, explosions, fingerprinting, forgery, and entomology are studied in detail. The scientific method, data analysis, and powers of observation and critical thinking to solve a problem are addressed in all aspects of the course.

This course recognizes the growing interest in jobs within the sciences, medical field, engineering, and law enforcement. These fields all overlap within the study of forensic science. In addition, the foundational aspect of this course will prepare students to then take college-level courses in physical sciences.

#### Course disclaimer

Before taking forensic science, it is important that both you and your parent/guardian are aware of the topics covered as part of this course. In this course, you will study several controversial topics, which include the following:

Crime scene situations and evidence

Fingerprint analysis

Hair and fiber analysis

Blood spatter evidence

Handgun and bullet analysis

The effects of a fired bullet on objects and people

Detection of alcohol and drugs (legal and illegal) associated with a criminal/crime scene

Detection of poisons in blood

Impressions from weapons, footprints, and bitemarks

Handwriting analysis as it relates to the forgery of documents

Arson, explosives, and hazardous materials

Decomposition of a body and forensic entomology

Cyber crime and the use of mobile devices by criminals and detectives

Case studies on infamous crimes and serial killers

It is important that you are comfortable with these topics and understand that at several points during our study of these topics you may encounter graphic images, videos, and illustrations in order to further your understanding of certain topics. It is important to note that to convict criminals, one must first understand the circumstances of criminals, the crimes they commit, and the tools they use to commit them. This course is not a criminal's "how-to" guide, but the science behind how criminals are caught; and they are almost always caught!

**AP PHYSICS:** 1.0 Science credit. Weighted grade. Offered every other year.

**Lab Fee:** \$15

**Prerequisite:** Algebra II or teacher approval.

**Description:** This trigonometry based physics class covers Newtonian Mechanics, kinematics, rotational motion, forces, energy, and waves. Students will be expected to participate in classwork and meet outside of class to complete a series of approximately several major labs. This course is designed to mimic a General Physics class in college and will be quite demanding

Research I-IV: 1.0 Elective Credit

**Lab Fee**: \$15

Prerequisite: Teacher approval

Description: This course is designed to meet the needs of the student who wishes to conduct extensive science inquiry into one scientific problem of their choice. The course of study will include locating and documenting twenty-five sources for research problems, making professional contacts with prominent scientists all over the world and selecting at least one mentor for a project. In addition, the student must complete an extensive research plan and paper for the scientific problem. The student will enter his or her project in the SLV Regional Science Fair with a presentation blackboard. A student in this course must be self-motivated and able to work successfully on his or her own.

#### SCIENCE PROGRAM SCOPE AND SEQUENCE:

9th Grade: Physical Science

10th Grade: Biology and Earth Science (optional)

11th Grade: Earth Science/Chemistry/Human Anatomy and Physiology, Intro to Forensic

Science, AP Physics (when offered).

12th Grade: Earth Science/Chemistry/Human Anatomy and Physiology, Intro to Forensic

Science, AP Physics (when offered).

## SOCIAL STUDIES

WORLD GEOGRAPHY/ECONOMICS: 1.0 social studies credit. Required.

**Description**: This course examines the historical development of the various geographic regions of the world. It integrates the use of geographic tools and the 5 themes of geography with the history of each region. Regions examined include: Latin America, Europe, Russia, Sub-Saharan Africa, the Middle East, South Asia, East Asia, and Southeast Asia. Students will examine how society manages its resources, how people make decisions, how people interact in the marketplace, and how forces and trends impact the economy. With personal financial literacy, students will learn to apply economic knowledge to manage resources and make decisions using prioritization of the costs and benefits of every choice.

**WORLD HISTORY:** 1.0 social studies credit. *Required*.

**Description:** This course examines the historical, economic and political development of the various regions of the world. Historical eras studied include: the Renaissance and Reformation, Exploration and Colonialism, Scientific and Industrial Revolution, Imperialism, WWI and WWII. Students will also interpret primary sources and have an understanding of multiple perspectives in secondary sources. Students will also learn to write critical essays, gain an understanding of cause and effect over time, and be able to compare developments from one period to another.

**US HISTORY:** 1.0 social studies credit. *Required*.

**Description**: This course examines the historical, economic and political development of the United States from 1877 to the 1990's. Historical eras studied include: the Opening of the West, Industrialization, Imperialism and Reform, WWI and the 20's, the Depression and WWII, the Cold War and Civil Rights, Vietnam to Watergate, and the 80's and 90's.

#### **AMERICAN GOVERNMENT:** 1.0 social studies credit. *Required*.

**Description:** This course examines the political development of the United States government and how it continues to change as our society evolves. The areas of study include: Foundations of the US Government, the Three Branches of Government, Rights and Responsibilities of Citizens, The Political System, Colorado State Government and Foreign Relations.

#### **HISTORY PROGRAM SCOPE AND SEQUENCE:**

9th Grade: World Geography/Economics

10th Grade: World History 11th Grade: US History

12th Grade: American Government

## **WORLD LANGUAGES**

**SPANISH 1:** 1.0 World Language Credit. *Required*.

**Description:** This beginning Spanish language course is designed to give students an introduction to the pronunciations, conversation essentials of grammar, written composition, and reading of materials with appropriate difficulty, in addition to working towards a solid foundation in basic grammar, vocabulary, and pronunciation the student will learn how to read a simple, authentic Spanish materials, list, describe, ask, and answer questions and express opinions to defend them in variety of oral and written activities. Also the use of speech patterns, writing, and culture of the Spanish speaking world through listening, speaking, reading, and writing. This course also includes an introduction to the geography and cultures of Spain and Latin America.

**SPANISH 2:** 1.0 World Language Credit. **Prerequisite:** Spanish I or teacher approval

**Description:** This is a continuation of Spanish I. Further development of vocabulary and especially use of verb tenses will be essential part of the course. In addition to working toward a solid foundation in basic grammar, vocabulary, and pronunciation the student will learn how to emulate authentic Spanish pronunciation; understanding simple spoken Spanish in connected sentences dealing with everyday situations. StudentE will learn how to ask and answer questions in the present, past and future tense dealing with basic vocabulary and common daily activities. This course includes more complex reading and writing, increased use of Spanish in classroom discussion, encouragement of self-expression, and increased study of cultural elements.

**SPANISH 3:** 1.0 World Language Credit.

Prerequisite: "C" average in Spanish II; teacher approval

**Description:** This Spanish language course will be a continuation of the grammar principles studies in the previous two years and will be accompanied by the reading of Spanish literature and various in depth writing and speaking exercises. The student will study a more advanced spoken and written Spanish emphasizing in the wide range of grammatical structures and building vocabulary on contemporary issues through some translation and essay writing. This course also provides more extensive communication in the Spanish language, including a brief study of the history, art, and literature of the Spanish speaking world.

SPANISH 4: 1.0 World Language Credit.

Prerequisite: "B" average in Spanish III; teacher approval

**Description:** This Spanish language course will be a great opportunity to continue the grammar principles studied in the previous three years and will be accompanied by the reading of Spanish literature and various in depth writing and speaking exercises. The student will study a more advanced spoken and written Spanish emphasizing in the wide range of grammatical structures and building vocabulary on contemporary issues through some translation and essay writing.

## **AGRICULTURE**

**INTRODUCTION TO AGRICULTURE:** 1.0 Elective Credit

**Ag Fee:** \$20

**Description**: An introductory course for first year agriculture education students. This course introduces students to the foundational principles of agriculture, food and natural resources. Students will gain knowledge in career development, leadership, personal development, communications, animal science, plant science, natural resources, food science, power/structure and agribusiness.

#### PRINCIPLES OF ANIMAL AND VETERINARY SCIENCE: 1.0 Elective Credit

**Ag Fee**: \$20

Prerequisite: Intro to Agriculture

Description: Students will develop knowledge, skills and understanding in the biological processes and physiological systems found in livestock and companion animal species including anatomy and physiology, growth and development, muscular and skeletal systems, integumentary system, respiratory and circulatory systems, nervous system, lymphatic and endocrine systems and excretory system. The scientific processes of observation, hypothesizing, data gathering, interpretation, analysis and application will be included. Career opportunities and educational preparation will be examined. Learning activities are varied with classroom, laboratory and field experiences will be included.

#### **ANIMAL PRODUCTION: 1.0 Elective Credit**

**Ag Fee:** \$20

Prerequisite: Intro to Agriculture, Principles of Animal and Vet Science, and/or Ag

Leadership/Ag Business

**Description:** Students will gain knowledge, skill and understanding in a variety of systems of production as well as the care, management and handling of livestock and companion animal species. Nutrients and nutrition, types of feeds, balancing rations, herd health management, common diseases, parasites, disease treatment and prevention, reproductive management, routine administration techniques and basic animal handling will be the topics covered in this course. Current animal agricultural issues will be researched and addressed. The scientific processes of observation, hypothesizing, data gathering, interpretation, analysis and application will be included. Career opportunities and educational preparation will be examined. Learning activities are varied with classroom, laboratory and field experiences will be included.

#### PRINCIPLES OF AGRIBUSINESS (AG BUSINESS): 1.0 Elective Credit

**Ag Fee:** \$20

**Prerequisite:** Intro to Agriculture, Principles of Animal and Vet Science

In this course students will be comparing and contrasting business models and identifying the advantages and disadvantages to owners and customers within the agribusiness chains. Students will show an understanding of basic record keeping skills and applications in an agribusiness. Components include the general journal, balance sheet, cash flow statements, and financial statements, reconciliation of accounts, net worth, income statements, and profit and loss statements. Students will understand how these records can allow for business decisions within an agribusinesses or Supervised Agriculture Experience (SAE) program.

Instruction includes the use of economic principles such as supply and demand, budgeting, depreciation, ag. finance, risk management, business law, and careers in agribusiness. Students

will understand how these records can allow for business decisions within an agribusinesses or Supervised Agriculture Experience(SAE) program.

#### PRINCIPLES OF AG POWER, STRUCTURE, AND TECHNICAL SYSTEM: 1.0 Elective

Credit **Ag Fee:** \$20

Prerequisite: Intro to Agriculture, Principles of Animal and Vet Science, and/or Ag

Leadership/Ag Business/Animal Production

Description: Principles of Ag Power, Structure, and Technical System-A is an introductory course educating students to the basic skills and knowledge in construction and land management. This course covers topics including safety, project management, land site management, irrigation and drainage and agriculture structures and components. Upon completion of this course, proficient students will be prepared for more advanced coursework in agricultural mechanics.

#### WORK-BASED LEARNING IN AGRICULTURE: 1.0 Elective Credit

**Ag Fee:** \$20

Prerequisite: Teacher approval

**Description:** This course is designed to prepare students to enter the workforce through on-the-job training in the form of a work-based learning experience and may be combined with class instruction. Students will build on prior knowledge and skills in the program of study aligned to their career and academic plan to further develop and apply employability and technical skills that prepare them for success in future career and postsecondary education. Students will have the opportunity to develop skills in supervised practical experience on the job or in a classroom-based job environment. A personalized learning plan is a requirement of this course.

#### AGRICULTURE PROGRAM SCOPE AND SEQUENCE:

9th Grade: Intro to Agriculture

10th Grade: Principles of Animal and Veterinary Science 11th Grade: Ag Business/Ag Leadership/Animal Production

12th Grade: Ag Business/Ag leadership/Animal Production/Principles of Ag Power, Structure,

and Technical System

## **BUSINESS**

**INTRODUCTION TO BUSINESS** 1.0 Elective Credit

**Description:** Introduces the application of fundamental business principles to local, national, and international forums. This course examines the relationship of economic systems, governance, regulations, and law upon business operations. It surveys the concepts of career development, business ownership, finance and accounting, economics, marketing, management, operations, human resources, regulations, and business ethics.

#### STRATEGIC MARKETING/GRAPHIC DESIGN 1.0 Elective Credit

Prerequisite: Teacher approval

**Description:** Semester 1 illustrates the connections between a market-driven strategy, customer satisfaction, and profitable growth. Students will examine how marketing strategies are developed and executed within both small and large organizations. The course will emphasize strategy development, implementation, and evaluation. Semester 2 focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos, and brochures.

#### INTRO TO ENTREPRENEURSHIP/ENTREPRENEURSHIP 1.0 Elective Credit

Prerequisite: Teacher approval

**Description**: Semester 1 explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture. This course will cover the challenges and rewards of entrepreneurship. This course will cover the role of entrepreneurial businesses in the United States and the world and their impact on our national and global economy. In semester 2, students in this course will demonstrate the culmination of learning within the business program. During this course, students will demonstrate their understanding of business and management in a variety of simulated scenarios applying theories, concepts, and problem-solving. Students will complete a capstone project which will demonstrate their understanding of fundamental business concepts including Accounting, Business Law, Ethics, Entrepreneurship, Computer Information Systems, Finance, Human Resources, Management, Marketing, Operations, Project Management, Risk Management, and Strategic Planning. The course covers the major aspects of small business management to enable the entrepreneur to successfully start a business.

#### PERSONAL FINANCE/FUNDAMENTALS OF ACCOUNTING 1.0 Elective Credit

Prerequisite: Teacher approval

**Description:** Semester 1 surveys the basic personal finance needs of most individuals and introduces the personal finance tools useful in planning and instituting a successful personal financial philosophy. The course emphasizes the basics of budgeting, buying, saving, borrowing, career planning, investing, retirement planning, estate planning, insurance, and income taxes. Semester 2 introduces accounting fundamentals with emphasis on the procedures and practices

used in business organizations. Major topics include the accounting cycle for service and merchandising companies, including end-of-period reporting.

## **AVIATION**

#### INTRO TO AVIATION/AEROSPACE: 1.0 Elective Credit

**Description:** This course will provide an introduction to the aviation and aerospace industry and provide an entry level examination of Aviation career opportunities. Students will explore the concepts and principles of Aviation and delve into general practices of the aerospace field. Areas of study are aviation history, pilot training, airplane structure, engines, basic aerodynamics, flight environment, airports, aviation weather, and navigation. In addition, the course exposes the student to the history of manned space flight.

#### **AERODYNAMICS:** 1.0 Elective Credit

**Description:** This course studies the basic principles of aerodynamics, including airfoil shapes and aerodynamic forces, airplane performance, stability and control, strength limitations, and the application of these to specific flight situations. Included in this course are flight performance with airflow in the sub-, trans-, and supersonic envelope. Federal Aviation Administration: <a href="https://www.faa.gov/regulations-policies">https://www.faa.gov/regulations-policies</a>

#### PRINCIPLES OF FLIGHT: 1.0 Elective Credit

**Description:** Principles of Flight builds on the fundamental knowledge and skills learned in Introduction to Aerospace while teaching students the essential competencies needed for flight under normal conditions. Upon completion of this course, proficient students will be able to apply knowledge, skills, and procedures in a variety of simulated flight environments. Moreover, students who complete this course will have the opportunity to move on to advanced study in Advanced Flight, where they will continue to prepare for the FAA Private Pilot written exam.

#### **ADVANCED FLIGHT:** 1.0 Elective Credit

**Description:** Advanced Flight is the capstone course in the Aviation Flight program of study intended to prepare students for careers in aviation. While continuing to build upon the knowledge, skills, and competencies acquired in Introduction to Aerospace and Principles of Flight, students in Advanced Flight will receive rigorous instruction in preparation to take the Federal Aviation Administration (FAA) Private Pilot written exam. This course goes beyond the mastery of procedures under normal conditions learned in Principles of Flight and introduces students to the troubleshooting and diagnostic techniques used by pilots and other aircraft personnel to assess and correct for malfunctions, make adjustments in hazardous weather conditions, and perform other crucial emergency procedures. Continued emphasis is placed on

maintaining the safety of flight and developing sound judgment ("judgment training") throughout these conditions. In addition, students will develop a keen understanding of advanced aerodynamics and the physics of flight to aid in decision-making and technical adjustments while working under simulated abnormal procedures

#### **AVIATION PROGRAM SCOPE AND SEQUENCE:**

9th Grade: Intro to Aviation/Aerospace

10th Grade: Aerodynamics 11th Grade: Principles of Flight 12th Grade: Advanced Flight

## PHYSICAL EDUCATION

PE: 1.0 Physical Education Credit

Prerequisite: None

**Description**: This class will focus on both the physical and mental aspects of physical fitness in relation to the cardiovascular system and its effects on the body. A class designed to help the student athlete develop. Plyometric, parachutes, and other devices are available for the student.

BOYS/GIRLS WEIGHTS: 1.0 Physical Education Credit

Prerequisite: None, open to grades 10-12

**Description:** Students will engage in coordinated weight and cardiovascular training programs that focus on good health and appropriate activities for high school students. Individualized programs designed to make students stronger, faster, and more flexible, put weight on or take it off.

## **ELECTIVES**

AP COMPUTER PROGRAMMING: 1.0 Elective Credit. Weighted grade. Offered every other

year.

Prerequisite: None

Lab Fee: \$15

**Description:** Computer Science embraces problem solving, hardware, algorithms, and perspectives that help people utilize computers to address real-world problems in contemporary life. Students completing the AP Computer Science Principles course and exam are well prepared to continue their study of computer science and its integration into a wide array of

computing and STEM-related fields. This course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data, approaches to processing data, analysis of potential solutions, and the ethical and social implications of computing.

**ART:** 1.0 Elective Credit **Prerequisite:** None,

Art Fee: \$30

Course Description: This course is designed to give students a basic understanding and appreciation for art by exploring various materials and studio techniques. Equal time will be given to drawing, painting, ceramics, sculpture, and printmaking at a high school level, which will emphasize both skill development and creative thought process. Grading will be based on timely completion of work, as well as craftsmanship, design, problem solving, meeting project criteria and work ethic. This course will meet the needs of ability levels.

**ADVANCED ART:** 1.0 Elective Credit **Prerequisite:** Art, open to grades 11 and 12

Art Fee: \$30

Course Description: This class is intended for the highly motivated student who is willing to make a serious commitment to broaden their skills and experiences, engage in both research and discussions, as well as to reflect on their strengths and weaknesses, to develop works. Students must be able to work in a studio atmosphere and produce work that emphasizes personal expression and growth while being aware of artists and styles of the past.

#### 11TH AND 12TH GRADE EARLY CHILD DEVELOPMENT: 0.5 Elective Credit

**Prerequisite**: Approval by School and Daycare Administration. 11 and 12th grade students only. 2.0 GPA. 16 years of age

**Description:** The Sargent Day Care and Preschool Program provides juniors and seniors with the opportunity to work directly with preschool-aged children on campus. Students get to interact with children during the class period, they help teachers with day to day operations of running a classroom. Participation and attendance are a majority of their grade. High school students are responsible for one assignment a month on topics related to early childhood education.

#### 12TH GRADE WORK-STUDY: 0.5 Elective Credit

**Prerequisite**: 12th grade students only. Administrative approval. Must have at least a 2.0 GPA. Signed work-study contract required.

**Description:** By Sargent Board Policy, work-study is an elective senior course which provides "hands-on" training and educational experience in the field of a student's chosen vocation. This may be either a paid or volunteer position. All work-study programs must be pre-approved by the school counselor, principal, superintendent and the Board of Education. Work-study may not

exceed half the school day including transportation time. A designated, on-the-job coordinator who reports directly to the counselor must supervise all work-study students.

#### 12TH GRADE STUDENT AIDE: 0.5 Elective Credit

Prerequisite: Administrative/teacher approval. 12th grade students only. 2.5 GPA

**Description:** This is an excellent opportunity for students to volunteer their talents and abilities in the service of the school. By doing so, they will learn the dynamics of an educational system and explore first-hand the rewards of working with a variety of staff and students in an elementary, junior high, or high school setting. '

#### **INDEPENDENT STUDY:** 0.5 Elective Credit

**Prerequisite**: Administration and board approval required. Please see the school counselor for more information.

**Description**; Independent study programs are designed to offer students an opportunity to further their knowledge in a topic that is not offered within the school's curriculum

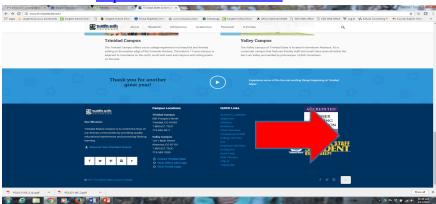
#### **CONCURRENT ENROLLMENT:**

**Prerequisite:** Completion of COF and concurrent application, Administration approval required. must be in congruence with students' individual career and academic plan (ICAP). Please see the school counselor for more information.

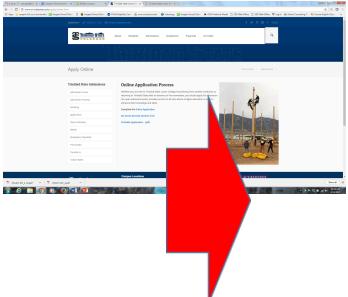
#### STEPS TO ENROLL IN CONCURRENT ENROLLMENT

#### 1. Complete an online application to TSJC.

a. http://www.trinidadstate.edu/



#### 2. Complete the online application ONLY



- 3. When you complete your application you will get an S# ---- You have this number to place on the forms you turn in to me!
- 4. If you don't get the S# you need to log out and log back in 24 hours later.
- 5. Choose your class and put the CRN number and course name in the box on page 3.
- 6. Get your parent signature
- 7. Turn in forms to the school counselor

# HIGH SCHOOL SCOPE AND SEQUENCE

#### **Social Studies:**

- 9<sup>th</sup> World Geography/Economic
- 10th World History
- 11th US History
- 12th- Government

#### **Mathematics:**

- Algebra 1
- Geometry
- Algebra II
- Algebra III
- Pre-Cal
- AP Calculus

#### **Science**

- 9th Physical Science
- 10<sup>th</sup> Biology
- 11<sup>th</sup> and 12<sup>th</sup> Earth Science, Chemistry, Anatomy, AP Physics, Intro to Forensic Science

#### **English**

- 9<sup>th</sup> Grade English
- 10<sup>th</sup> Grade English
- 11<sup>th</sup> Grade English
- 12<sup>th</sup> Grade English

# HIGH SCHOOL GRADUATION REQUIREMENTS

#### Units of Credit Needed Class of 2025 and Beyond

- 4 English Credits
- 4 Mathematics Credits (must include Alg 1. Geometry, Algebra II)
- 4 Science Credits (two need to be lab based)
- 4 Social Studies Credits
- 1 World Language Credits
- 9 Electives

#### **Total Credits: 26**

#### **Graduation Requirement Guideline Requirements**

Students must demonstrate readiness for college and career based on at least one measure in Reading, Writing and Communicating, and one measure in Mathematics 1

#### **English**

Measure	Cut Score/Criteria	
Classic: Accuplacer assessment	Score of at least 62 on Reading Comprehension OR 70 on Sentence Skills.	
Next Generation: Accuplacer assessment	Score of at least 241 on Reading OR 236 on Sentence Writing	
ACT assessment	Score of at least 18 on English.	
Advanced Placement (AP) exam that demonstrates English readiness, as identified on the accompanying exhibit.*	Score of at least 2	

Armed Services Vocational Aptitude Battery (ASVAB)	Score in at least 31 on the AFQT	
SAT assessment	Score of at least 470 on English.	
Concurrent enrollment course that demonstrates English readiness, as approved by the district and included in the student's academic plan of study or Individualized Career and Academic Plan (ICAP).	Students must maintain a passing grade of "C" or higher, per policy IHCDA-E	
Industry certificate that demonstrates academic and intellectual learning in the subject area of English.	Receipt of the industry certificate and approval by the district-designated team.  [NOTE: The district should create an accompanying regulation to define its process for qualifying industry certifications.]	
District capstone project that demonstrates academic and intellectual learning in the subject area of English.	Completion of the district capstone project and approval by the district-designated team.	

## Math

Measure	Cut Score/Criteria	
Classic: Accuplacer assessment	Score of at least 61 on Elementary Algebra.	
Next Generation: Accuplacer assessment	255 on Arithmetic (AR) OR 230 on Quantitative Reasoning, Algebra, and Statistics (QAS)	
ACT assessment	Score of at least 19 on Math.	
Advanced Placement (AP) exam that demonstrates Math readiness, as identified on the accompanying exhibit.*	Score of at least 2.	
Armed Services Vocational Aptitude Battery (ASVAB)	Score in at least 31 on the AFQT	
SAT assessment	Score of at least 500 on Math.	

Concurrent enrollment course that demonstrates Math readiness, as approved by the district and included in the student's academic plan of study or Individualized Career and Academic Plan (ICAP).	Students must maintain a passing grade of "C" or higher, per policy IHCDA-E
Industry certificate that demonstrates academic and intellectual learning in the subject area of Math.	Receipt of the industry certificate and approval by the district-designated team.  [NOTE: The district should create an accompanying regulation to define its process for qualifying industry certifications.]
District capstone project that demonstrates academic and intellectual learning in the subject area of Math.	Completion of the district capstone project and approval by a district-designated reviewer.

## **Grading Scale**

% of Grade	Letter Grade	Standard	Weighted
90-100	A	4.0	5.0
80-89	В	3.0	4.0
70-79	С	2.0	3.0
60-69	D	1.0	2.0
59 and below	F	0.0	0.0

## Honors

Academic Letter: GPA 3.5 or higher (1st, 2nd, 3rd quarters)

Gold Honors Cord at Graduation: 3.76 and higher cumulative GPA Silver Honors Cord at Graduation: 3.5-3.75 cumulative GPA

## MIDDLE SCHOOL

ENGLISH 6: Core Course. Required

Prerequisite: None

**Description**: Prepared graduates in English 6 will read and analyze the organization and structure of a wide range of informational and literary texts to gain a better understanding of the human experience. Through the exploration of these texts they will work to apply knowledge of word relationships, word structures, and sentence structures to determine the meaning of new words in context. Students will also engage in writing a variety of texts. These will include: arguments to support claims using clear reasons, relevant evidence, credible sources and a formal style; informative/explanatory texts characterized by appropriate organization, ample development, precise language and formal style; engaging real or imagined narratives using techniques such as sensory language, dialogue, description, and sequencing to convey experiences and events. In English 6, students will pose research questions, gather, synthesize, and credit relevant and credible resources and present findings through a written text with MLA formatting. Throughout the entire course students will develop, organize, and present ideas and opinions effectively by employing appropriate presentations and collaboration strategies to meet the needs of the given task and purpose.

**ENGLISH 7**: Core Course. Required

Prerequisite: English 6

**Description**: Prepared graduates in English 7 will read and analyze the connections between interrelated literary elements to understand literary texts, summarize and evaluate to show understanding of informational texts and apply knowledge of word relationships, word structures, and sentence structures to determine the meaning of new words in increasingly complex text. Students will also engage in writing a variety of texts. These will include: well organized arguments using logical reasoning, relevant and credible evidence, acknowledgment of opposing claims, clear language and formal style; well-developed informative/explanatory texts using logical organizational strategies, relevant supporting information, domain-specific vocabulary, and a formal style; engaging real or imagined narratives effectively using techniques such as relevant description, sensory language, dialogue, and logical pacing to capture the action and detail experiences and events; pose research questions, gather, synthesize, and credit relevant and credible resources, and present findings. Students will complete these writing pieces by creating a plan, draft, editing, and revising to ensure that their writing is clear and coherent, that it conforms to standard conventions for grammar usage, and mechanics, and that its style is appropriate to task, purpose, and audience. Throughout the entire course students will prepare formal presentations and use appropriate delivery techniques by incorporating language, tools and techniques appropriate for the task and audience during formal presentations.

**ENGLISH 8**: Core Course. Required

**Prerequisite:** English 6, 7

**Description**: Prepared graduates in English 8 will read, analyze, and evaluate literary elements and an author's choices to understand literary and informational text. Through the exploration of these texts they will work to apply knowledge of word relationships, word structures, and sentence structures to determine the meaning of new words in increasingly complex texts. Students will also engage in writing a variety of texts. These will include: well organized and cohesive arguments, distinguished claims from opposing claims and using language to clarify connections among claims, reasons and evidence; well-developed and logically organized informative/explanatory texts, conveying relevant content through precise language, domain specific vocabulary, and formal style; engaging real or imagined narratives effectively using techniques such as relevant and sufficient descriptive details, sensory language, logical pacing and dialogue to detail actions and to develop and reflect on experiences and events; pose important questions; identify, locate, and evaluate sources; extract and synthesize relevant information and communicate findings appropriately. Students will complete these writing pieces by producing clear and coherent final drafts that demonstrate a command of the conventions for grammar usage and mechanics as well as a style appropriate to task, purpose and audience. Throughout the entire course students will design organized presentations incorporating key details and claims while tailored for purpose and audience by engaging in effective collaborative discussions and analyzing all information presented.

#### **6TH GRADE MATH**: Core Course.

**Prerequisite:** None

**Description**: In this 6th Grade Math course, students will develop a deep understanding of key mathematical concepts through engaging, real-world applications and hands-on learning. This course will cover a variety of topics designed to build strong foundational skills for future mathematics.

#### Key Units Include:

- Ratios and Rates: Students will explore the concept of ratios and how they relate to real-world situations. They will learn to solve problems involving rates and ratios and understand their practical applications.
- Fractions, Decimals, and Percents: This unit focuses on understanding the relationship between fractions, decimals, and percents. Students will practice converting between these forms and solving problems involving all three.
- Compute Multi-Digit Numbers and Fractions: Students will gain proficiency in performing operations with multi-digit whole numbers and fractions, including addition, subtraction, multiplication, and division.

- Integers, Rational Numbers, and the Coordinate Plane: Students will explore the world of integers, rational numbers, and their representation on the coordinate plane. They will learn how to perform operations with integers and plot points on a graph.
- Numerical and Algebraic Expressions: Students will practice simplifying and evaluating numerical and algebraic expressions, using the order of operations and basic algebraic concepts.
- Equations and Inequalities: This unit focuses on solving simple equations and inequalities, helping students develop skills in balancing and manipulating mathematical statements.
- **Relationships Between Two Variables**: Students will study how two variables can be related, interpreting data and using tables and graphs to describe these relationships.
- Area, Volume, and Surface Area: Students will learn how to calculate the area, volume, and surface area of various geometric shapes, gaining a solid understanding of spatial reasoning.
- Statistical Measures and Displays: Students will explore measures of central tendency (mean, median, mode) and how to display data using various graphs, including bar graphs, line plots, and histograms.

Throughout the course, students will apply these concepts in problem-solving activities, critical thinking exercises, and collaborative projects. This course will help students develop the mathematical skills needed to succeed in higher-level math and beyond.

#### **6TH GRADE ADVANCED MATH:** Core Course.

**Prerequisite:** NWEA scores and teacher recommendation

**Description**: In this 6th Grade Math course, students will develop a deep understanding of key mathematical concepts through engaging, real-world applications and hands-on learning. This course will cover a variety of topics designed to build strong foundational skills for future mathematics.

#### Key Units Include:

- Ratios and Rates: Students will explore the concept of ratios and how they relate to real-world situations. They will learn to solve problems involving rates and ratios and understand their practical applications.
- Fractions, Decimals, and Percents: This unit focuses on understanding the relationship between fractions, decimals, and percents. Students will practice converting between these forms and solving problems involving all three.
- Compute Multi-Digit Numbers and Fractions: Students will gain proficiency in performing operations with multi-digit whole numbers and fractions, including addition, subtraction, multiplication, and division.

- Integers, Rational Numbers, and the Coordinate Plane: Students will explore the world of integers, rational numbers, and their representation on the coordinate plane. They will learn how to perform operations with integers and plot points on a graph.
- Numerical and Algebraic Expressions: Students will practice simplifying and evaluating numerical and algebraic expressions, using the order of operations and basic algebraic concepts.
- Equations and Inequalities: This unit focuses on solving simple equations and inequalities, helping students develop skills in balancing and manipulating mathematical statements.
- **Relationships Between Two Variables**: Students will study how two variables can be related, interpreting data and using tables and graphs to describe these relationships.
- Area, Volume, and Surface Area: Students will learn how to calculate the area, volume, and surface area of various geometric shapes, gaining a solid understanding of spatial reasoning.
- Statistical Measures and Displays: Students will explore measures of central tendency (mean, median, mode) and how to display data using various graphs, including bar graphs, line plots, and histograms.

Throughout the course, students will apply these concepts in problem-solving activities, critical thinking exercises, and collaborative projects. This course will help students develop the mathematical skills needed to succeed in higher-level math and beyond.

#### 7TH GRADE MATH: Core Course.

Prerequisite: 6th Grade Math

**Description**: Student develops an increase in knowledge in fractions, integers, decimals, rational numbers, and the use of using operations with them. Learn the difference between expressions and equations and solving for a variable. Start learning more about Geometry with shapes, area, etc.. Start to learn the basics of Algebra in solving for the missing variable. Literacy strategies are integrated throughout the curriculum.

#### 7TH GRADE ADVANCED MATH: Pre-Algebra. Core Course.

**Prerequisite:** NWEA scores and teacher recommendations

**Description**: Student develops an increase in knowledge in fractions, integers, decimals, rational numbers, and the use of using operations with them. Learn the difference between expressions and equations and solving for a variable. Start learning more about Geometry with shapes, area, etc.. Start to learn the basics of Algebra in solving for the missing variable. Literacy strategies are integrated throughout the curriculum.

8TH GRADE MATH: Pre-Algebra. Core Course.

Prerequisite: 7th Grade Math

**Description**: Student develops an increase in knowledge in fractions, integers, decimals, rational, irrational numbers, and the use of using operations with them. Introduction to more algebra related aspects such as exponents, square roots, scientific notation, graphing, functions, and solving systems of equations. Learn the difference between expressions and equations and solving for a variable. Start learning more about Geometry with shapes, area, volume, congruency, similarity. Literacy strategies are integrated throughout the curriculum.

#### 8TH GRADE ADVANCED MATH: Algebra. Core Course.

Prerequisite: NWEA scores and teacher recommendations

**Description**: Student develops an increase in knowledge in fractions, integers, decimals, rational, irrational numbers, and the use of using operations with them. Introduction to more algebra related aspects such as exponents, square roots, scientific notation, graphing, functions, and solving systems of equations. Learn the difference between expressions and equations and solving for a variable. Start learning more about Geometry with shapes, area, volume, congruency, similarity. Literacy strategies are integrated throughout the curriculum.

#### **SCIENCE 6:** Core Course. *Required*.

**Description:** In this engaging, hands-on 6th grade science course, students will embark on an exciting journey to explore the wonders of the natural world through interactive lessons, experiments, and projects. The curriculum is designed to foster curiosity, critical thinking, and problem-solving skills, while providing a solid foundation in scientific principles and processes. Throughout the year, students will actively participate in laboratory investigations, develop their scientific inquiry skills, and learn to apply the scientific method to real-world challenges. -Key Units of Study:

- Scientific Method and Lab Process Skills: Students will begin by mastering the
  scientific method, learning how to ask questions, form hypotheses, conduct experiments,
  and analyze data. They will also focus on developing important science lab process skills
  such as observation, measurement, and data recording, ensuring they are well-prepared
  for all future experiments.
- Laboratory Safety: Safety is a top priority. Students will learn essential safety rules and
  procedures for working in the science lab, from handling chemicals to using equipment
  properly. They will practice creating safe work environments and understand the
  importance of safety in all scientific investigations.
- Ecosystems: Students will explore the interdependence of organisms and their environments. They will study various ecosystems, food webs, energy flow, and the impact of environmental changes on living organisms.
- **Structures and Properties of Matter**: In this unit, students will investigate the characteristics and behavior of different materials. They will study physical and chemical properties of matter, including density, states of matter, and how materials can change through physical and chemical processes.

- Atoms and Chemical Reactions: Students will be introduced to the building blocks of
  matter—atoms—and learn about their structure and properties. They will also explore
  basic chemical reactions, observing how substances combine or break apart, and the
  energy changes involved.
- **Earth Systems**: This unit will help students understand Earth's layers, weather patterns, and how the atmosphere, hydrosphere, geosphere, and biosphere interact to shape our planet's systems.
- The Changing Earth and Human Activity: Students will examine the forces that shape Earth's surface, including plate tectonics, erosion, and weathering. They will also explore how human activities, such as deforestation and pollution, impact the environment and contribute to the changing Earth.
- Science Fair: To encourage independent exploration and creativity, students are encouraged to participate in the science fair. This provides an opportunity for students to apply what they've learned, design their own experiments, and present their findings to the school community.

Through a combination of hands-on experiments, interactive learning, and inquiry-based projects, students will not only gain a deeper understanding of the natural world but also develop critical thinking, collaboration, and communication skills that will serve them in science and beyond.

#### **SCIENCE 7:** Core Course. *Required*.

**Description:** In this dynamic and engaging 7th grade science course, students will explore a variety of foundational concepts in the natural world. Through hands-on activities, experiments, and collaborative learning, students will develop a strong understanding of scientific inquiry and processes. The course is designed to cultivate critical thinking and problem-solving skills that are essential for understanding the world around them.

-Key units of study

- Scientific Methods and Process Skills: Students will learn the essential steps of scientific inquiry, including forming hypotheses, conducting experiments, and analyzing results. Emphasis will be placed on observation, data collection, and drawing conclusions.
- Laboratory Safety: This unit will focus on the importance of safety in the science lab. Students will be taught how to properly use equipment, handle chemicals, and follow safety protocols to ensure a safe learning environment.
- **Systems**: Students will study different types of systems, both natural and human-made, and explore how the parts of a system work together to maintain balance and function.
- Reproduction and Growth: This unit will cover the biological processes of reproduction, development, and growth in living organisms, from plants to animals, and how these processes are essential for life.

- Atoms and Chemical Reactions: Students will delve into the structure of matter, learning about atoms, molecules, and how chemical reactions lead to new substances. They will explore the basics of the periodic table and chemical bonding.
- **Energy Transfer**: This unit will introduce students to the concept of energy, including how energy is transferred and conserved in systems, as well as the different forms of energy such as kinetic, potential, and thermal energy.
- Changing Earth and Human Activity: Students will examine the forces that shape Earth's surface, including weathering, erosion, and plate tectonics. They will also investigate how human activities impact the environment and contribute to global changes.
- Cycles Influencing Weather and Climate: This unit will focus on Earth's weather
  patterns and climate systems, including the water cycle, atmospheric conditions, and the
  factors influencing weather and climate changes.
- Science Fair: The course will include completion of a science fair project, where students will apply their scientific knowledge and process skills to design, conduct, and present an original experiment, showcasing their creativity and problem-solving abilities.

By the end of the course, students will have a deeper understanding of the scientific world, enhanced problem-solving skills, and the ability to think critically about the natural world and human impact.

#### **SCIENCE 8:** Core Course. *Required*.

**Description:** This 8th Grade Science course provides an engaging and comprehensive exploration of the scientific world, designed to ignite curiosity and foster a deeper understanding of key scientific concepts. Students will develop essential scientific skills, such as observation, measurement, and analysis, while applying the scientific method to explore real-world phenomena.

-Key units of study:

#### • Scientific Methods and Process Skills

Students will learn the fundamental principles of scientific inquiry, including how to ask questions, form hypotheses, conduct experiments, and analyze data. They'll develop essential skills for thinking critically and solving problems scientifically.

#### • Diversity of Life

In this unit, students will explore the vast variety of life forms on Earth, understanding their classification, ecosystems, and adaptations. They'll gain a deeper appreciation for biodiversity and its role in maintaining balanced ecosystems.

#### Genetics

Students will investigate the fascinating world of heredity, genes, and DNA. They'll examine how traits are inherited and learn about genetic mutations, the role of chromosomes, and how genetics shapes living organisms.

#### Forces and Motion

This unit focuses on the physical laws that govern the movement of objects. Students will study the concepts of force, velocity, acceleration, and friction, and apply these principles to everyday examples.

#### Waves and Information Technology

Students will explore the nature of waves, including sound and light waves, and their use in communication technologies. They'll learn how waves are used in technologies like the internet, cell phones, and other forms of information transfer.

#### • Energy Transfer

The unit on energy transfer will delve into the different forms of energy (kinetic, potential, thermal, etc.) and how energy moves through systems. Students will explore concepts like energy conservation, conduction, convection, and radiation in various contexts.

#### • Cycles Influencing Weather and Climate

Students will learn about the complex systems that influence weather patterns and global climate, including atmospheric conditions, the water cycle, and the role of the sun. They'll understand how human activities impact climate and weather.

#### • Earth's Place in the Universe

This unit introduces students to Earth's place in the solar system and the broader universe. They'll explore the movement of planets, the structure of the universe, and the concept of gravity.

#### Science Fair

Students will apply what they've learned throughout the course by designing and conducting their own science fair project. They'll develop hypotheses, gather data, and present their findings to the class, reinforcing the scientific process and enhancing their presentation skills.

Throughout the course, students will engage in hands-on experiments, collaborative projects, and critical thinking exercises that will strengthen their understanding of the natural world. This course fosters curiosity, problem-solving, and scientific reasoning, setting the foundation for future academic success in science.

HISTORY 6: Core Course. Required

**Prerequisite**: None

**Description:** This course invites students to explore the dynamic history and geography of the Western Hemisphere, focusing on the Americas and the interconnections that have shaped its development. Students will investigate indigenous cultures, the impact of European exploration and colonization, the growth of nations, and the cultural, political, and economic exchanges that have defined the region's history.

Through hands-on projects, primary source analysis, and collaborative activities, students will build skills in critical thinking, historical inquiry, and understanding cause-and-effect relationships. Topics will include the ancient civilizations of the Americas, colonial interactions, the fight for independence, and modern developments within the hemisphere.

Aligned with state social studies standards, this course encourages students to connect historical events to current global issues, fostering a greater understanding of the Western Hemisphere's past and its influence on the world today.

**HISTORY 7**: Eastern World History. Core Course. *Required*.

**Prerequisite**: History 6

**Description:** This course covers a wide range of topics in the Eastern hemisphere from the Five Themes of Geography, Prehistory, Ancient River Valley Civilizations, Bronze age (Greece & Rome), Globalization, Industrialism, Eastern World Government, and Eastern Religion. Students will learn important mapping/geography skills, how early civilizations formed, rose to power, and collapsed at the end of the Bronze Age. Students will also learn how modern Eastern governments operate and about the religions popular in the region.

**HISTORY 8**: U.S. History (Survey, Settlement - Reconstruction). Required

**Prerequisite:** History 7

**Description:** Students will study United States history through Reconstruction. Units include Exploration & Native Americans, The Colonies, Revolution, A New Nation, Constitution, A Young Nation (1810-1850), A Nation Divided (1804-1865), A Nation Reconstructs. Early units include close work with primary sources as students work toward understanding American principals. The Constitution unit is particularly in depth as students work with case law to work toward an understanding of the rights within this country. The class also covers everything leading up to the Revolutionary War, War of 1812, Civil war, and the reconstruction after each respective war.

## Middle School Electives

#### **GUITAR**

**Description:** This is an introductory beginning guitar class that will focus on reading chord grids and playing chords. Students will also learn to play TAB which is more of a visual way to learn finger placement. School guitars are provided, but if you have your own, you may bring it.

#### **DRAMA**

**Description:** The goals of the Drama Program are to emphasize actor training, script analysis, and the creative design and use of production elements. It is our focus to maintain a system of multiple production opportunities grounded in production and performance. Students participate in a vast array of activities including impromptu speaking, lip-syncs, and participation in a full-length drama production.

#### **LIFESKILLS**

**Description:** The goals of the junior high school Life Skills Program is to develop daily living skills which are essential for promoting independence, self-care, and the overall quality of life. Skills taught encompass a wide range of areas, including personal hygiene, meal preparation, money management, time management, transportation, and community navigation.

#### **SPEECH**

**Description:** In this course, students learn about different genres of speeches as well as different communication strategies. For their assessments, students will give 4 short speeches in total:1) a persuasive speech about the ethics of self-driving cars, 2) a mini marketing pitch about their own original design for a new robot, 3) a detailed explanation of a smartphone app so that the elderly could use it, and 4) a captivating story about a hobby they participate in. The speeches/presentations are embedded in real-world content and interesting topics, such as robotics, app development, and extracurricular activities. Watching and analyzing educational TedTalks both improves students' listening comprehension skills as well as enriches students' understanding of presentation techniques.

#### ART 6

**Art Fee: \$10.00** 

**Description:** The sixth-grade art course focuses on art techniques and materials. Emphasis is on the creative process including brainstorming, problem solving, analyzing, and evaluating. Students will consider the elements of art as well as the principles of design. An introduction to the historical and cultural timeline is introduced.

#### **ART 7**

Art Fee: \$10.00

**Description:** This course is an introduction to an art studio experience. Students will develop their skills while learning basic concepts and techniques. Students will be given the opportunity to explore materials and methods that promote personal expression and inventive thinking. In addition, students will be given the opportunity to work on collaborative projects. Emphasis will be placed on work ethics versus talent in hopes of increasing personal growth and encouraging life-long appreciation of the visual arts and its history.

#### PHYSICAL EDUCATION (PE)/HEALTH

For PE, we will play a variety of games that use many different skills for the students. They will learn to develop and maintain overall fitness and use teamwork to help develop cohesion as a class. They will also be changing out and learning to have proper personal healthcare. They will learn to have fun through fitness and create a positive, competitive, environment through their class.

For health, students will learn a variety of topics that cover many basic ideas within the class, such as nutrition to personal health. Students will receive a small introduction of how to take care of their body and become a healthy individual. We do many different things in the class, such as notes, presentations, projects, and surveys.

# JH STEAM Description:

#### **LEADERSHIP**

**Description:** Leadership is an exciting and interactive course designed to help students develop essential skills for becoming confident and effective leaders. Throughout the semester, students will explore key leadership qualities such as communication, teamwork, responsibility, problem-solving, and decision-making. They will learn how to inspire and motivate others, manage conflicts, and work toward common goals.

Through fun group activities, discussions, and real-world examples, students will discover their unique leadership style and build self-confidence. They will have the opportunity to practice leadership in different scenarios, such as school projects and community service events, gaining hands-on experience. This course encourages students to be positive role models in their school and community, preparing them to take on leadership roles in the future.

#### Key Skills:

- Effective communication
- Collaboration and teamwork
- Conflict resolution
- Critical thinking and decision-making
- Self-awareness and goal setting

#### **MATH ESSENTIALS:**

**Description:** In 7th Grade Math Essentials, students will develop a strong foundation in key mathematical concepts and skills that are essential for success in middle school and beyond. This

course focuses on building proficiency in topics such as ratios and proportional relationships, operations with integers, fractions, and decimals, algebraic expressions, and geometry. Students will explore the concepts of proportional reasoning, solve problems involving percentages, and learn how to apply their mathematical knowledge in real-world situations. The course also emphasizes problem-solving strategies, critical thinking, and mathematical reasoning to help students develop confidence in their abilities. By the end of the year, students will be prepared to tackle more advanced mathematical concepts and gain a deeper understanding of how math is used in everyday life.

#### 8TH GRADE SPANISH

**Description:** This introductory course is designed for students with little or no previous study of Spanish. This middle school course teaches basic language patterns and vocabulary. Repetition and comprehensible input are important components of this course. Focus is on all four language skills: listening, speaking, reading, and writing. Culture is an integral part of the course and is introduced through the use of media, games, adapted readings, and class discussions. In addition to written tests and quizzes, students may also be assessed by means of activities. Homework assignments are an integral part of this course; they reinforce concepts/skills introduced and explored in class, which enable students to participate in class in a meaningful way. Active participation is required.

#### 8TH GRADE BUSINESS CAREER EXPLORATION

**Description:** In this course, students will explore career opportunities and build skills for business career readiness. The course will focus on self-assessment, career exploration research, essential skills, job application process, and creating a career plan. An emphasis will be on building fundamentals of the WBL continuum and learning about business careers and skills. Students will grow collaboration, communication, research, and professionalism skills to prepare them for the world of work.

# MIDDLE SCHOOL ELECTIVES SCOPE AND SEQUENCE

#### 6th Grade

- Art/Guitar
- PE/Health
- STEAM/Lifeskills

#### 7th Grade

Art/Speech

- PE/Health
- Math Essentials

## 8th Grade

- Drama/LeadershipPE/Health
- Spanish/Business Career Exploration