Educational Planning

CAREER EXPLORATIONS

It is expected that students will:

- Explore their individual skills and talents
- Examine different life and career options through each of the Nevada Career Clusters
  - Art/Communications Pathway
  - Business Pathway
  - Health Pathway
  - Human Services Pathway
  - Natural Resources Pathway
  - Technology Pathway
- Demonstrate their abilities as:
  - A planner
  - A learner
  - A citizen
  - An employee
- Present publicly the results of their explorations and investigations
- Formulate a record of their explorations and investigations

Statement of Non-Discrimination

The Lander County School District does not knowingly discriminate against any person on the basis of race, color, creed, religion, national or ethnic origin, sex, age, or disability in admission or access to, or treatment or participation in its programs and activities.

LANDER COUNTY SCHOOL DISTRICT

Box 1300
625 Weaver Avenue

Phone: 775-635-2886
Fax: 775-635-5347
E-mail: jrickley@lander.k12.nv.us

Public Education Our Investment In America

Public Education Our Investment In America

CORE CURRICULUM

LANDER COUNTY SCHOOL DISTRICT

CURRICULUM

OVERVIEW

SENIOR HIGH SCHOOL

GRADES 9-12

Austin Senior High School
200 Highway 305 South
Austin, Nevada 89310

Battle Mountain Senior High School
425 Weaver Avenue
Battle Mountain, Nevada 89820

Contact Personnel

BOARD OF SCHOOL TRUSTEES

Shawn Mariluch, President
Frank Sullivan, Clerk
Walt Holland, Member
Joel Lenz, Member
Bev Huntington, Member
Joan Westover, Member
Melissa Bakker, Member

CENTRAL ADMINISTRATION

Steve Larsgaard, Superintendent
James F. Rickley, Assistant Superintendent

BUILDING ADMINISTRATION

Lorrie Sparks, Principal
Mary S. Black Elementary School
Eliza Pierce Elementary School
Tom Brannan, Principal
Eleanor Lemaire Elementary School
Amy Kester, Principal
Battle Mountain Junior High School
Austin Elementary School
Austin Senior High School
Toby Melver, Principal
Battle Mountain Senior High School

Guidance and Counseling Program

Lander County schools offer a comprehensive guidance and counseling program. Counselors are professionally trained in the social, emotional, educational, and career development of students.

This counselors assist students with:

- Educational planning
- Interpretation of test scores
- Career information
- Social/emotional growth
- High school and postsecondary options

Counselors implement the curriculum in three settings:

- Group Activities which provide information in areas such as:
  - Problem-solving
  - Decision-making
  - Goal setting
  - Conflict resolution
- Small group settings which address issues such as:
  - Divorce adjustment
  - Test anxiety
  - Anger management
  - Peer relationships
- Individual counseling which focuses on a student's school success.

Guidance counselors act as a resource for parents and teachers by:

- Providing information on community referrals and parenting programs
- Facilitating communication between home and school

The school counselors support a team approach when dealing with the high school student's academic needs, and the rules and responsibilities of home and school. Parents are encouraged to access their child's school counselor to assist with needs to ensure school success.

Twelfth Grade – Social Studies

HISTORY (Continued)

- Explain issues, events, and the roles of key individuals associated with the development of a national economic identity and foreign policy, including: development of the factory system and impacts of significant inventions such as the cotton gin and interchangeable parts, territorial, trade, and shipping issues with Great Britain, War of 1812, the creation of a national transportation system, Monroe Doctrine, growth and impact of immigration
- Describe the contributions in language, literature, art, and music that led to the development of an emerging culture in the United States, including: Stephen Foster, Nathaniel Hawthorne, Hudson River School of Art, Henry David Thoreau
- Summarize the successes and failures of the Reconstruction period
- Describe the effect of industrial technology innovations and urbanization on United States social and economic development
- Explain the motivations for groups coming to the United States and describe their contributions to United States society
- Discuss the causes, characteristics, and consequences of United States expansion and diplomacy, including: Alaska, Hawaii, Open Door Policy, Spanish-American War, Panama Canal, T. Roosevelt's foreign policy, Dollar Diplomacy
- Describe the causes and effects of the Russian Revolution, including: Romanovs, Lenin, Bolsheviks, Russian Civil War
- Describe the social tensions in the postwar era, including: radical politics, immigration restrictions, religious fundamentalism, racism
- Explain the effects of WW II on the homefront in the United States, including: internment camps, technologies, economic developments, propaganda, women/minority contributions, GI Bill
- Describe the effects of the Cold War on the United States, including: arms race and nuclear testing, McCarthyism, space race, Cuban Missile Crisis
- Describe the causes and effects of changing demographics and developing suburbanization in the United States
- Describe the changes in United States political culture, including: the role of the media, the role of women and minorities, Watergate, Iranian hostage crisis, Iran-contra affair, Grenada and Panama
- Describe the geopolitical changes in the world due to the disintegration of the USSR
- Identify and explain the implications of scientific and technological achievements, including: personal computers, Internet, satellites, biotechnology
- Explain how literature, music, and the visual arts are reflections of the time

A Word From the Superintendent

Dear Parents,

This curriculum overview has been developed to help you understand what is expected of students at each grade level in the core subject areas. It provides a listing of the Nevada Content Standards and many of the specific skills and concepts that are being taught. This information may serve as a guide to help you evaluate the progress of your child in these subjects. Additionally, such benchmarks foster accountability in our schools and help ensure that we provide all children with a quality education. More comprehensive information about the curriculum for all subject areas may be obtained from your school's principal.

Sincerely,

Steve Larsgaard, Superintendent

From the Principal

Effective educational programs depend upon a strong partnership between parents, the community and the school. I believe that parental involvement enriches the academic experiences of all children. Your participation is encouraged and welcomed and I invite you to contact me or your child's teacher if you have any suggestions or questions.

Many thanks for your commitment to your child's education.

Toby Melver, Principal

Amy Kester, Principal

Lander County Graduation Requirements

A minimum of twenty two and one-half (22 ½) acceptable units in high school course work are required for graduation from all schools in Lander County

English	4 units
Social Studies (American Government, American History, Elective)	3 units
Humanities (Art, music, humanities, occupational)	1 unit
Mathematics	3 units
Science	2 units
Physical Education	2 units
Health	½ unit
Computers (Competency test in computers can be taken)	½ unit
Electives	6 ½ units
Total	22 ½ units

Twelfth Grade – Social Studies

GEOGRAPHY (Continued)

- Analyze the effects of physical and human forces on interdependence within ecosystems
- Analyze the biodiversity, distribution, and productivity of ecosystems across Earth's surface
- Evaluate the impact of migration and settlement on physical and human systems
- Compare the characteristics and patterns of migration and settlement in developing and developed countries
- Evaluate the changes that occur in the size and structure of cultural, political, and economic organizations
- Evaluate strategies to respond to constraints placed on human systems by the physical environment
- Analyze human perception of and response to natural hazards
- Develop policies for the use and management of Earth's resources that consider the various interests involved
- Evaluate a contemporary issue using geographic knowledge, skills, and perspectives
- Predict possible outcomes and develop future policies for local or regional issues that have spatial dimensions

HISTORY

It is expected that students will:

- Integrate, analyze, and organize historical information from a variety of sources
- Explain and demonstrate how geography influenced the political, social, and economic growth of ancient classical civilizations including: Africa, China, Greece, India, Mesopotamia, Rome
- Locate and describe civilizations in terms of geography, social structure, religion, political systems, and contributions, including: African, Byzantine, Chinese, Indian, Japanese, Scandinavian
- Explain the causes of the Reformation and its effects in Europe and the Americas
- Analyze how the interactions among Native Americans, Africans, Europeans, and their descendants resulted in unique American economic, social, and political institutions
- Explain the political and economic causes and effects of the American Revolution
- Explain the issues of the Confederation period, including: war debts and finance, western land, trade, taxation
- Discuss the political events, people, and ideas that influenced European politics, including: Napoleon, Metternich, Marx, Congress of Vienna

ECONOMICS (Continued)

- Demonstrate knowledge of when interest rate levels have experienced relative highs and relative lows throughout US History and discuss their effects
- Demonstrate an understanding that all voluntary trade, by definition, benefits both parties
- Discuss the effects of price controls (price ceilings and price floors (e.g., minimum wage, rent control)
- Analyze the roles of financial institutions in creating credit
- Explain how the services of not-for-profit organizations impact other economic institutions
- Explain the three functions of money: medium of exchange, store of value, unit of account
- Analyze the potential production of goods and services for a nation as determined by its resources and technology
- Make connections between the nation's unemployment rate and changes in seasons, changes in an industry, and changes in demographics
- Discuss how entrepreneurs effect the economy by solving problems, taking risks, and taking advantage of opportunities to earn profits
- Discuss the pros and cons of specialization and interdependence
- Discuss whether redistributing income is an appropriate role of government
- Demonstrate an understanding that government must define, establish, and enforce property rights in order for markets to function
- Analyze the pros and cons of foreign trade, comparing free trade with restricted trade

GEOGRAPHY

It is expected that students will:

- Plan and organize a geographic research project by asking appropriate geographic questions
- Complete a geographic inquiry by applying geographic models, generalizations, and theories to the analysis, interpretation, and presentation of information
- Use appropriate geographic tools and technologies to analyze and interpret Earth's physical and human systems
- Analyze maps for similarities and differences in purpose, accuracy, content, and design
- Compare and contrast the characteristics of places and regions from different points of view
- Analyze why places and regions once characterized by one set of criteria may be defined by a different set of criteria today, and evaluate these changes

HONORS DIPLOMA

Objectives and Philosophy

- To provide incentives for students to take the most rigorous academic classes offered in each high school in Lander County and keep the greatest number of career options available
- To encourage high ability students to take difficult math, science, and foreign language courses
- To encourage students to take those courses which will provide greatest post-secondary options in difficult majors

Requirements

- Total Units of Credit—Twenty-six (26) including:
  - Mathematics—Four (4) units of credit in the following classes
    - Mathematics elective Algebra 1 or above
    - Algebra 2
    - Trigonometry/Geometry
    - Calculus
  - Science—Four (4) units of credit in the following classes
    - Science Elective
    - Biology 1
    - Chemistry
    - Physics
  - Foreign Language—Two (2) units of credit in the same language
  - English—Four (4) units of credit
  - Social Studies—Four (4) units of credit in the following classes
    - Social Studies elective
    - World History
    - American History
    - American Government
  - Physical Education—Two and one-half (2 ½) units of credit
    - Two units of credit meeting P.E. requirement
    - One-half unit of credit in health
  - Humanities—One (1) unit of credit meeting the Humanities requirement
  - Computers—one-half (½) unit of credit in computer literacy or equivalency
  - Electives—Four (4) units of credit
- Minimum Score— ACT (21) or SAT (1000)
- Minimum Grade Point Average— 3.10
- Pass all sections of Nevada State Proficiency Examination

Diploma Options

REGULAR DIPLOMA

Objectives and Philosophy

- To meet the requirements as established by the State of Nevada to attain a high school diploma
- To prepare students for the world after high school
- To encourage students to become life-long learners.

Requirements

- Total Units of Credit—Twenty-two and one-half (22 ½) including:
    - Mathematics—Three (3) units of credit
    - Science—Two (2) units of credit
    - English—Four (4) units of credit
    - Social Studies—Three (3) units of credit in the following classes
        - Social Studies elective
        - American History
        - American Government
    - Physical Education—Two and one-half (2 ½) units of credit
        - Two units of credit meeting P.E. requirement
        - One-half unit of credit in health
    - Humanities—One (1) unit of credit meeting the Humanities requirement
    - Computers—one-half (½) unit of credit in computer literacy or equivalency
    - Electives—Six and one-half (6 ½) units of credit
- Pass all sections of Nevada State Proficiency Examination

STANDARD ADJUSTED DIPLOMA

Objectives and Philosophy

- To meet the educational needs of those students with disabilities

Requirements

- Must meet specially designed graduation requirements as stated in each student's Individual Education Plan (I.E.P.)

Twelfth Grade–Social Studies

Eleventh grade students predict, persuade, evaluate and compare solutions and scenarios through their previous research experiences the connections and interactions between their study of United States history, its inhabitants and its institutions with those around the globe using the lens of economic, political, social, and technological ideas.

CIVICS

It is expected that students will:

- Analyze the role of citizen participation in US civic life
- Analyze the effectiveness of checks and balances in maintaining the equal division of power
- Analyze and give examples of the expansion of the national government through the application of the enumerated and implied powers
- Explain the US Constitutional provisions for division of powers between the state and national governments (delegated, reserved, concurrent powers)
- Assess the processes by which leaders are selected in the US political system and analyze the role of the electoral college system in the election of the President
- Evaluate propaganda in both historic and current political communications
- Examine the rights of citizens and how these rights may be restricted
- Examine the responsibilities of US citizens
- Analyze the United States Constitution and its amendments in protecting individual rights, including the Fourteenth Amendment's provisions for due process and equal protection
- Compare and contrast the structure of the Nevada and United States Constitutions
- Summarize and evaluate the significant characteristics of the world's major political systems, including: monarchy, totalitarian dictatorship, presidential system, parliamentary system, communism, socialism
- Analyze the conflict between US policies of isolationism versus intervention in world affairs

ECONOMICS

It is expected that students will:

- Recognizing that people act out of self-interest, predict how a change in the economic environment will affect the choices made by consumers, producers, and savers
- Using the change in real Gross Domestic Product, examine the US economy over time, identifying recessions and high and low rates of growth
- Compare the unemployment rates for groups of people who differ by age, gender, ethnic origin, occupation, and educational attainment

EARTH AND SPACE SCIENCES—Solar System and Universe

It is expected that students will:

- Identify common characteristics of stars
- Describe the process of nuclear fusion
- Identify technology use in exploring the universe
- Explain scientific evidence suggesting that the universe is expanding
- Explain how most objects in the solar system are in regular and predictable motion which explains such phenomena as the day, the year, phases of the moon, and eclipses

EARTH AND SPACE SCIENCES—Earth's Composition and Structure

It is expected that students will:

- Illustrate how successive layers of sedimentary rock and the fossils with them can be used to confirm the age, history, and changing life forms of the Earth including how this evidence is affected by the folding, breaking, and uplifting of layers
- Investigate and describe how landforms are the result of a combination of constructive and destructive forces resulting from weathering, erosion, and the movement of lithosphere plates
- Investigate and describe how elements necessary for life on Earth pass through both living and non-living cycles in a series of changes that form a global system
- Distinguish the composition of soil separating it into organic and inorganic materials configured in layers
- Demonstrate the processes of obtaining, using and recycling of renewable and non-renewable resources
- Distinguish and differentiate the various processes involved in obtaining, using and recycling materials, organic and inorganic
- Classify the elements necessary for life on Earth mapping their transition through living and non-living cycles
- Explain the relationships of organisms and their physical environment
- Research, analyze and interpret the consumption patterns, conservation efforts, cultural and social practices in various countries and cultures
- Examine and research external and internal sources of energy

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

ENGLISH LANGUAGE ARTS/READING

1. Students know and use word analysis skills and strategies to comprehend new words encountered in text.
2. Students use reading process skills and strategies to build comprehension.
3. Students read to comprehend, interpret, and evaluate literature from a variety of authors, cultures, and times.
4. Students read to comprehend, interpret, and evaluate informational texts for specific purposes.
5. Students write a variety of texts that inform, persuade, describe, evaluate, or tell a story and are appropriate to purpose and audience.
6. Students write with a clear focus and logical development, evaluating, revising, and editing for organization, style, tone, and word choice.
7. Students write using standard English grammar, usage, punctuation, capitalization, and spelling.
8. Students listen to and evaluate oral communications for content, style, speaker's purpose, and audience appropriateness.
9. Students speak using organization, style, tone, voice, and media aids appropriate to audience and purpose.
10. Students participate in discussions to offer information, clarify ideas, and support a position.
11. Students formulate research questions, use a variety of sources to obtain information, weigh the evidence, draw valid conclusions, and present findings.

MATHEMATICS

1. To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

MATHEMATICS (CONTINUED)

2. To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.
3. To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.
4. To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will identify, represent, verify, and apply spatial relationships and geometric properties.
5. To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.
6. Students will develop their ability to solve problems by engaging in developmentally appropriate problem solving opportunities in which there is a need to use various approaches to investigate and understand mathematical concepts in order to: formulate their own problems; find solutions to problems from everyday situations; develop and apply strategies to solve a wide variety of problems; and integrate mathematical reasoning, communication, and connections.
7. Students will develop their ability to communicate mathematically by solving problems in which there is a need to obtain information from the real world through reading, listening, and observing in order to: translate this information into a mathematical language and symbols; process this information mathematically; and present results in written, oral, and visual formats.

LIFE SCIENCE—Diversity of Life

It is expected that students will:

- Explain the passing of DNA Coding from parents to offspring; show the relationship between the structure of DNA and its function in heredity
- Explain how DNA molecules provide instructions for assembling protein molecules
- Classify and differentiate organisms based on evolutionary relationships
- Differentiate and distinguish relationships between organisms by the similarity of evidence from DNA sequences
- Research and interpret fossil records for evidence of natural selection and its evolutionary consequences
- Illustrate and show that the extinction of species can be a natural process
- Explain and describe how biological evolution explains diversity of life
- Explain and describe the concepts of natural and artificial selection

EARTH AND SPACE SCIENCES—Atmospheric Processes and the Water Cycle

It is expected that students will:

- Investigate and describe how the sun is the major source of Earth's energy, and provides the energy driving Earth's weather and climate
- Explain the changes occurring in the Earth's atmosphere citing present and past examples
- Interpret the role of the atmosphere in the greenhouse effect
- Illustrate the role of convection and radiation regarding heat energy
- Explain how uneven heating of the Earth's surface by the sun forms convection currents within the atmosphere and ocean, producing wind and ocean currents that are modified by the Earth's rotation

LIFE SCIENCE—Heredity

It is expected that students will:

- Explain the passing of DNA Coding from Parents to offspring
- Explain how DNA molecules provide instructions for assembling protein molecules
- Explain and describe how all body cells in an organism develop from a single cell, and contain essentially identical genetic instructions
- Explain several causes and effects of somatic versus sex cell mutations
- Show and illustrate how to predict patterns of inheritance

LIFE SCIENCE—Structure of Life

It is expected that students will:

- Explain and illustrate how disease disrupts the equilibrium that exists in a healthy organism
- Illustrate and show cell structures and explain their functions
- Explain how the human body has a specialized anatomy and physiology composed of an hierarchical arrangement of differentiated cells

LIFE SCIENCE—Organisms and Their Environment

It is expected that students will:

- Describe and explain how elements necessary for life on Earth pass through cycles in a series of changes that form a global system
- Examine and interpret relationships of organisms and their physical environment
- Distinguish and differentiate how changes in an ecosystem can affect biodiversity and biodiversity's contribution to an ecosystem's stability
- Analyze and evaluate how consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts
- Describe and explain that the amount of living matter an environment can support is limited by the availability of matter, energy, and the ability of the ecosystem to recycle materials
- Analyze and characterize the unique geologic, hydrologic, climatic, and biological characteristics of Nevada's bioregions

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

MATHEMATICS (CONTINUED)

8. Students will develop their ability to reason mathematically by solving problems in which there is a need to investigate significant mathematical ideas and construct their own learning in all content areas in order to justify their thinking; reinforce and extend their logical reasoning abilities; reflect on and clarify their own thinking; and ask questions to extend their thinking.
9. Students will develop the ability to make mathematical connections by solving problems in which there is a need to view mathematics as an integrated whole, identifying relationships between content strands and integrating mathematics with other disciplines, allowing the flexibility to approach problems in a variety of ways within and beyond the field of mathematics.

SCIENCE

1. Forces and Motion—Students understand that forces such as gravitational, electrical, and magnetic influence the motion of objects.
2. Structure and Properties of Matter—Students understand that materials have distinct properties which depend on the amount of matter present, its chemical composition, and structure.
3. Energy and Matter: Interactions and Forms—Students understand that changes in temperature and pressure can alter states of matter. Energy exists in many forms, and one form can change into another.
4. Chemical Reaction—Students understand that chemical reactions change substances into different substances.
5. Nuclear and Electromagnetic Energy—Students understand that nuclear energy and electromagnetic energy are produced from both natural and human-made sources in many forms.
6. Structure and Function—Students understand that all life forms, at all levels of organization, use specialized structures and similar processes to meet life's needs.
7. Internal and External Influences on Organisms—Students understand that organisms respond to internal and external influences.

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

SCIENCE (CONTINUED)

8. Heredity and Diversity—Students understand that life forms are diverse and that they pass some characteristics to their offspring.
9. Evolution—The Process of Biological Change—Students understand that life forms change over time.
10. Earth Structures and Composition—Students understand that the Earth is composed of interrelated systems of rocks, water, air, and life.
11. Earth Models—Students understand that the Earth may be represented by a variety of maps and models.
12. Earth History—Students understand that Earth systems (such as weather and mountain formation) change or vary.
13. Cycles of Matter and Energy—Students understand that Earth systems have a variety of cycles through which energy and matter continually flow.
14. The Solar System and the Universe—Students understand that the Earth is part of a planetary system within the Milky Way Galaxy, which is part of the known universe.
15. Ecosystems—Students demonstrate an understanding that ecosystems display patterns of organization, change, and stability as a result of the interactions and interdependencies among the life forms and the physical components of the Earth.
16. Natural Resources—Students demonstrate and understand that natural resources include renewable and non-renewable materials and energy. All organisms, including human, use resources to maintain and improve their existence, and use of resources can have positive and negative consequences.
17. Conservation—Students understand that humans have the unique ability to change personal and societal behavior based on ethical considerations regarding other organisms, the planet as a whole, and future generations.
18. Scientific, Historical, and Technological Perspectives—Students understand that science is a unique way of knowing about things. Many men and women have contributed to the tradition of science. The ability to pursue activities and careers in science is accessible to people from all cultures and all levels of ability.

PHYSICAL SCIENCE—Forces and Motion

It is expected that students will:

- Explain, describe and demonstrate how magnetic forces and electric forces are thought of as different aspects of a single electromagnetic force
- Explain, describe and demonstrate the strength of the electric force between two objects increases with charge, and decreases with distance
- Explain, describe and demonstrate how the strength of gravitational force between two objects increases with mass, and decreases rapidly with distance
- Investigate, describe and explain that laws of motion can be used to determine the effects of forces on the motion of objects
- Construct, draw, and interpret graphical representations of an object's motion

PHYSICAL SCIENCE—Energy

It is expected that students will:

- Investigate and describe how the sun is the major source of Earth's energy, and provides the energy driving Earth's weather and climate
- Investigate, describe and examine how waves (i.e., sound, seismic, electromagnetic) have energy that can be transferred when the waves interact with matter
- Explain and describe how nuclear reactions convert a relatively small amount of material into a large amount of energy
- Explain and describe the characteristics, applications and impact of radioactivity
- Explain and describe conversion of energy forms
- Explain that temperature of a substance is directly related to the average kinetic energy of its constituent particles
- Explain and describe that electricity is transferred from generating sources for consumption and practical uses

THE NATURE OF SCIENCE—Scientific Inquiry (Continued)

- Compare groups of data, taking into account both percentages and actual numbers through repeated experimentation for statistical analysis and unbiased conclusions
- Use models to identify and predict cause-effect relationships (e.g., effect of temperature on gas volume, effect of carbon dioxide level on the greenhouse effect)

THE NATURE OF SCIENCE—Science, Technology, and Society

It is expected that students will:

- Investigate and describe how changes in an ecosystem (science, technology and society) can affect each other
- Examine, distinguish and differentiate the influences of ethics on scientific enterprise
- Research, question, and analyze scientific knowledge built on previous information

PHYSICAL SCIENCE—Matter

It is expected that students will:

- Investigate and describe different molecular arrangements and motions accounting for the different physical properties of solids, liquids, and gases
- Investigate and describe elements in the periodic table by groups and periods noting their repeating patterns and relationships
- Identify properties used to separate mixtures
- Explain how atoms bond with one another by transferring or sharing electrons
- Investigate and describe how chemical reactions can take place at different rates, depending on a variety of factors (i.e., temperature, concentration, surface area, and agitation)
- Investigate and describe how chemical reactions either release or absorb energy
- Explain and describe how in chemical reactions, elements combine in predictable ratios, and the numbers of atoms of each element do not change
- Report and explain that most elements have two or more isotopes, some of which have practical application
- Illustrate and show that the number of electrons in an atom determines whether the atom is electrically neutral or an ion

*Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the **Curriculum Overview** are aligned with the Nevada Content Standards*

SCIENCE (CONTINUED)

19. Reasoning and Critical Response Skills—Students understand that many decisions require critical consideration of scientific evidence.
20. Systems, Models, Risk, and Predictions—Students understand that a variety of models can be used to describe and predict things and events.
21. Scientific Values and Attitudes—Students understand that science is an active process of systematically examining the natural world.
22. Communication Skills—Students understand that a variety of communication methods can be used to share scientific information.
23. Scientific Applications of Mathematics—Students understand that scientific inquiry is enhanced and often communicated by using mathematics.
24. Laboratory Skills and Safety—Students can appropriately and safely apply the tools and techniques of scientific inquiry.

SOCIAL STUDIES

Civics

1. Rules and Law—Students know why society needs rules, laws, and governments.
2. The U.S. Government—Students know the United States Constitution and the government it creates.
3. National and State Government—Students can explain the relationship between the states and national government.
4. The Political Process—Students describe the roles of political parties, interest groups, and public opinion in the democratic process.
5. Citizenship—Students know the roles, rights, and responsibilities of United States citizens and the symbols of our country.
6. State and Local Government—Students know the structure and functions of state and local governments.

Nevada Content Standards

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

SOCIAL STUDIES (CONTINUED)

7. Political and Economic Systems—Students explain the different political and economic systems in the world.
8. International Relations—Students know the political and economic relationship of the united States and its citizens to other nations.

Economics

1. The Economic Way of Thinking—Students will use fundamental economic concepts, including scarcity, choice, cost, incentives, and costs versus benefits to describe and analyze problems and opportunities, both individual and social.
2. Measuring U.S. Economic Performance—Students will demonstrate a knowledge of past and present U.S. economic performance, identify the economic indicators used to measure that performance, and use this knowledge to make individual decisions and discuss social issues.
3. Functioning of Markets—Students will demonstrate an understanding of how markets work, including an understanding of why markets form, how supply and demand interact to determine market prices and interest rates, and how changes in prices act as signals to coordinate trade.
4. Private U.S. Economic Institutions—Students will describe the roles played by various U.S. economic institutions, including financial institutions, labor unions, for-profit business organizations, and not-for-profit organizations.
5. Money—Students demonstrate an understanding of various forms of money; how money makes it easier to trade, borrow, save, invest, and compare the value of goods and services; and how the Federal Reserve System and its policies affect the U.S. money supply.
6. The U.S. Economy as a Whole—Students will demonstrate an understanding of the U.S. economic system as a whole in terms of how it allocates resources; determines the nation's production, income, unemployment, and price levels; and leads to variations in individual income levels.

Twelfth Grade – Mathematics

MATHEMATICAL REASONING

It is expected that students will:

- Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems
- Apply deductive and inductive reasoning in mathematical situations to extend logical reasoning
- Ask questions to reflect on, clarify, and extend thinking
- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems

MATHEMATICAL CONNECTIONS

It is expected that students will:

- Link new concepts to prior knowledge
- Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics
- Use models to explain the relationship of concepts to procedures
- Identify practical applications of mathematical principles that can be applied to other disciplines
- Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science
- Identify, explain, and use mathematics in everyday life

Twelfth Grade – Science

Twelfth grade science students compare and evaluate scientific impact on their lives as adults through their previous examination of concepts in the nature of science and its role in society and technology. Principles of scientific inquiry are assessed, criticized and judged with topics covered in the physical, life, earth and space sciences.

THE NATURE OF SCIENCE—Scientific Inquiry

It is expected that students will:

- Identify and determine the credibility of sources of information based on the techniques used to gather that information making arguments and claims in oral and written presentation using tables, charts, illustrations and graphs
- Record and sort records of procedures, data, analyses, decisions, and understandings of scientific investigations

PROBLEM SOLVING (Continued)

- Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable
- Use technology, including calculators, to understand quantitative relationships (e.g., for skip counting and pattern exploration)
- Use technology, including calculators, to investigate, define, and describe qualitative relationships such as patterns and functions
- Solve real-world problems using appropriate formulas, relations, and functions, and properties
- Solve real-world problems using direct and indirect methods
- Solve real-world problems using appropriate strategies and tools
- Generalize conclusions, make inferences, and justify reasonableness of mathematical problems

MATHEMATICAL COMMUNICATION

It is expected that students will:

- Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems
- Identify and translate key words and phrases that imply mathematical operations
- Use physical materials, diagrams, models, pictures, writing, and tables to represent and then communicate mathematical ideas through oral, verbal, and written formats
- Explain and justify thinking about mathematical ideas and solutions
- Make conjectures and present arguments in discussions of mathematical ideas
- Use everyday language to explain thinking about strategies and solutions to mathematical problems
- Express mathematical ideas and use them to define, compare, and solve problems orally and in writing
- Use mathematical notation to communicate and explain mathematical situations

*Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the **Curriculum Overview** are aligned with the Nevada Content Standards*

SOCIAL STUDIES (CONTINUED)

7. An Evolving Economy—Students will demonstrate an understanding of how investment, entrepreneurship, competition, and specialization lead to changes in an economy's structure and performance.
8. The Role of Government in a Market Economy—Students will explain the role of government in a market economy.
9. The International Economy—Students explore the characteristics of non-U.S. economic systems in order to demonstrate an understanding of how they are connected, through trade, to people and cultures throughout the world.

Geography

1. The World in Spatial Terms—Students use maps, globes, and other geographic tools and technologies to locate and derive information about people, places, and environments.
2. Places and Regions—Students understand the physical and human features and cultural characteristics of places and use this information to define and study regions and their patterns of change.
3. Physical Systems—Students understand how physical processes shape Earth's surface patterns and ecosystems.
4. Human Systems—Students understand how economic, political, and cultural processes interact to shape patterns of human migration and settlement, influence and interdependence, and conflict and cooperation.
5. Environment and Society—Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.
6. Geographic Applications—Students apply geographic knowledge of people, places, and environments to interpret the past, understand the present, and plan for the future.
7. Geographic Skills—Students ask and answer geographic questions by acquiring, organizing, and analyzing geographic information.

Content Standards identify what students should know and be able to do by the end of high school. The skills and concepts for each grade level in the ***Curriculum Overview*** *are aligned with the Nevada Content Standards*

SOCIAL STUDIES (CONTINUED)

History

1. Chronology—Students use chronology to organize and understand the sequence and relationship of events.
2. History Skills—Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis, and in decision making.
3. Prehistory to 400 CE—Students understand the development of human societies, civilizations, and empires through 400 CE.
4. 1 CE to 1400—Students understand the characteristics, ideas, and significance of civilizations and religions from 1 CE to 1400.
5. 1200 to 1750—Students understand the impact of the interaction of peoples, cultures, and ideas from 1200 to 1750.
6. 100 to 1865—Students understand the people, events, ideas, and conflicts that led to the creation of new nations and distinctive cultures.
7. 1860 to 1920—Students understand the importance and impact of political, economic, and social ideas.
8. The Twentieth Century, a Changing World: 1920 to 1945—Students understand the importance and effect of political, economic, technological, and social changes in the world from 1920 to 1945.
9. The Twentieth Century, a Changing World: 1945 to 1990—Students understand the shift of international relationships and power as well as the significant developments in American culture.
10. New Challenges, 1990 to the Present—Students understand the political, economic, social, and technological issues challenging the world as it approaches and enters the new millennium.

GEOMETRY AND ALGEBRA CONNECTIONS

It is expected that students will:

- Solve real-world application problems using linear programming techniques
- Analyze the nature of roots
- Compare the effect of parameter changes on a graph
- Model and solve algebraic problems involving geometric properties
- Solve problems using finite and infinite series and sequences
- Develop the concept of a limit through converging and diverging series

DATA ANALYSIS, PROBABILITY, AND STATISTICS CONNECTIONS

It is expected that students will:

- Collect, organize, and analyze data using a variety of statistical techniques
- Interpret and predict events
- Solve real-world problems using technology

PROBLEM SOLVING

It is expected that students will:

- Select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts
- Apply previous experience and knowledge to new problem-solving situations
- Verify, interpret, and evaluate results with respect to the original problem situation, determining on efficient strategy for the given situation
- Try more than one strategy when the first strategy proves to be unproductive
- Generalize solutions and strategies from earlier problems to new problem situations

Twelfth Grade – Language Arts/Reading

COMMUNICATION/STUDY SKILLS

It is expected that students will:

- Apply standard English to communicate
- Employ appropriate speaking and listening techniques in a variety of formal and informal speaking situations
- Coherently and concisely defend responses and opinions in a discussion
- Design and apply criteria for giving constructive feedback
- Participate as a member of a team to solve problems, find solutions, and work toward consensus
- Apply effective reading strategies, study habits, and test-taking skills
- Take organized notes from lectures, texts, and various media
- Summarize and evaluate communications that inform, persuade, and entertain

Twelfth Grade – Mathematics

Twelfth grade students embark on a study from the concept of numbers as experienced in arithmetic to the notion of properties of numbers without regard to their value, a necessary tool for science applications. Formal abstraction and use of technology enables students to understand and analyze data in many occupational and academic fields.

RELATIONS AND FUNCTIONS

It is expected that students will:

- Solve problems involving equations and inequalities using algebraic techniques
- Graph functions and their inverses
- Compare relationships among families of lines, and the effects of changing the parameters of an equation
- Solve and graph systems of equations and inequalities
- Create mathematical models including matrices to solve real-world problems
- Solve problems involving real and complex numbers: exponential and logarithmic equations, literal exponents, and radicals

Ninth Grade – Language Arts/Reading

Instruction in this area focuses on expanding students' reading, writing, speaking, listening, and research skills. It strengthens critical thinking and study skills. Grammar, usage, and mechanics are taught as necessary elements of the writing process. Literature is used to stimulate discussion and to model good writing.

WORD KNOWLEDGE

It is expected that students will:

- Apply knowledge of prefixes, suffixes, and roots to determine word meaning
- Use context clues to determine word meaning
- Differentiate between abstract and concrete nouns
- Use synonyms, antonyms, and homonyms appropriately in speaking and writing
- Differentiate between denotation and connotation
- Differentiate between objective and subjective language
- Apply knowledge of syntax and literary allusions to understanding word meaning

THE READING PROCESS

It is expected that students will:

- Apply reading process skills and strategies to aid comprehension
- Understand stated information and identify the literal meaning of words or phrases
- Draw conclusions or inferences

GRAMMA, USAGE, AND MECHANICS

It is expected that students will:

- Writing using standard English grammar, usage, and mechanics
- Construct various types of sentences
- Correct sentence errors
- Develop individual writing style by avoiding common stylistic errors

Ninth Grade – Language Arts/ Reading

COMPOSITION

It is expected that students will:

- Apply the five stages of the writing process
- Become familiar with and apply holistic rubric of the Nevada State Proficiency Exam in Writing
- Apply the skills required by the Nevada State Proficiency Exam in writing compositions
- Write various forms of business communication
- Write a variety of compositions appropriate to audience and purpose that contain a thesis statement, supporting details, and appropriate conclusions
- Write expository, persuasive, narrative, and descriptive compositions
- Demonstrate unity and coherence in writing
- Write with clarity and express ideas concisely
- Paraphrase and summarize passages
- Write a research paper citing sources according to a given format

LITERATURE/INFORMATIONAL TEXT

It is expected that students will:

- Read and respond to a broad range of contemporary and classic literature
- Analyze the elements of fiction
- Recognize and interpret poetic and literary devices
- Recognize argumentative techniques
- Identify author's purpose or viewpoint
- Analyze use of text features and rhetorical strategies
- Synthesize multiple primary and secondary sources to support positions
- Read and follow multi-step directions
- Differentiate between fact and opinion

Twelfth Grade – Language Arts/Reading

GRAMMAR, USAGE, AND MECHANICS

It is expected that students will:

- Write using standard English grammar, usage, and mechanics
- Write sentences that demonstrate variety, interest, and emphasis
- Revise and edit for errors in syntax, usage, and mechanics
- Polish individual writing style by avoiding errors such as unclear pronoun reference, unnecessary shifts in verb tense, misplaced modifiers, wordiness, lack of parallelism, and misused words and idioms
- Use effective transitions in writing

COMPOSTION

It is expected that students will:

- Apply the five stages of the writing process
- Write with clarity and express ideas concisely
- Write various forms of technical and business communication
- Write various forms of personal communication
- Write for a variety of purposes and audiences
- Write compositions that support a thesis with sufficient meaningful details and an effective conclusion
- Write persuasive, expository, narrative, and descriptive compositions
- Paraphrase, summarize, and synthesize information in writing
- Write a research paper citing sources according to a given format

LITERATURE/INFORMATIONAL TEXT

It is expected that students will:

- Read, respond to, and analyze contemporary and classic fiction, nonfiction, drama, and poetry
- Analyze the elements of various types of literature
- Recognize and interpret poetic and literary devices
- Identify author's purpose or viewpoint
- Analyze the use of text features and rhetorical strategies in primary source documents
- Synthesize multiple primary and secondary sources to support positions

Eleventh Grade – Social Studies

HISTORY (Continued)

- Analyze how postwar science and technology augmented United States economic strength, transformed daily life, and influenced the world economy and politics
- Describe the causes, course, character, and effects of the Vietnam war, including: Ho Chi Minh, Dien Bien Phu, Ngo Dinh Diem, Gulf of Tonkin Resolution, draft and lottery, Tet Offensive, anti-war movement, Paris Peace Accord, POWs and MIAs
- Describe how international policies contributed to the end of the Cold War, including: recognition of China, détente, disarmament treaties, "Star Wars," solidarity, glasnost
- Describe how global issues affect nations differently, including: human rights, the environment, world and US regional conflicts, medical concerns
- Describe the regional and global effects of political and economic alliances

Twelfth Grade – Language Arts/Reading

Twelfth grade students work on perfecting their written and oral communication skills in light of their needs as adults. Emphasis is placed on effective writing as well as analytical and evaluative thinking. A variety of literature and media is used as the basis for composition and discussion.

WORD KNOWLEDGE

It is expected that students will:

- Manipulate words and word parts for the purpose of using words appropriately in context
- Use context clues to determine word meaning
- Apply knowledge of syntax and literary allusions to understand word meaning

THE READING PROCESS

It is expected that students will:

- Apply reading process skills and strategies to aid comprehension
- Evaluate main ideas and supporting details
- Make inferences and draw conclusions based on textual evidence
- Make predictions
- Interpret non-literal language

Ninth Grade – Language Arts/ Reading

COMMUNICATION/STUDY SKILLS

It is expected that students will:

- Apply standard English to communicate
- Employ appropriate and effective speaking techniques
- Coherently and concisely defend responses and opinions
- Employ constructive feedback using given criteria
- Practice effective listening skills
- Participate as a member of a team to solve problems and find solutions
- Read aloud or recite literary, dramatic, and original works
- Apply effective reading strategies for study
- Practice effective study habits
- Maintain an organized notebook and record of assignments
- Follow directions accurately
- Take organized notes from lectures, texts, and various media
- Practice effective test-taking strategies

Ninth Grade–Mathematics

Primary instruction in ninth grade mathematics is built within the patterns and structure of the real number system. Studies include working with equations, graphing, and problem-solving strategies. Students are expected to become adept at solving problems which require the integration of a variety of mathematical concepts.

REAL NUMBER SYSTEM

It is expected that students will:

- Review previous grade topics while engaging in hands-on laboratory activities
- Review previous grade topics along with implementing effective problem solving strategies
- Solve problems using signed numbers, exponents, including integral exponents and radicals
- Apply properties and theories of the real number system including signed numbers, exponents, radicals, and scientific notation

REAL NUMBER SYSTEM (Continued)

- Evaluate formulas and algebraic expressions, including rational expressions, using multiple strategies
- Demonstrate operations with polynomials, including multiplying and factoring

EQUATIONS AND SYSTEMS OF EQUATIONS

It is expected that students will:

- Solve problems integrating coordinate geometry and algebra
- Determine solutions for multiple-step linear equations and inequalities involving real numbers
- Solve multi-step linear and non-linear equations and inequalities involving real numbers, with a variety of methods
- Solve systems of linear and non-linear equations and inequalities, with and without technology
- Solve problems involving domain and range of functions and relations
- Describe and explore relations and functions, including notation, domain, and range
- Graph linear and non-linear equations and inequalities

PROBLEM SOLVING

It is expected that students will:

- Solve theoretical, practical, and work-related problems involving indirect and direct methods, including the appropriateness of an answer or measurement
- Apply a variety of strategies to solve theoretical, practical, and real-world problems
- Justify mathematical solutions using logical reasoning, tools, and models of algebraic thinking that enables students to understand mathematical connections in the real world
- Solve theoretical, practical, and work-related problems integrating geometry, statistics, and algebra
- Solve theoretical, practical, and work-related problems involving indirect measure, using prevision, error, and tolerance

HISTORY (Continued)

- Describe the influence of the American Revolution on Europe and the Americas
- Describe the rise of national economies, the emergence of capitalism, and the freemarket economy
- Describe the causes, key people, events, and outcome of the Civil War, including: states' rights and slavery, election of 1860, Frederick Douglass/African American troops, President Lincoln, Emancipation Proclamation, Antietam, Vicksburg, Gettysburg, Gettysburg Address, Generals Grant and Lee
- Describe the key people and significant issues concerning African American rights, including: Booker T. Washington and the Tuskegee Institute, Black Codes and Jim Crow Laws, Plessy v. Ferguson, W.E.B. DuBois and the NAACP, Ida B. Wells and the NACW
- Describe effects of industrialization and new technologies on the transformation of the United States, including: steel industry, mass production, mechanized assembly line, communication
- Describe nativism and explain the response to immigration into the United States
- Describe the development and impact of the Progressive Movement, including: government reform, Prohibition, "trust busting"
- Describe the causes, course, character and effects of World War I, including: imperialism, arms race and alliances, nationalism, weapons/tactics, Fourteen Points, Treaty of Versailles
- Explain how fine arts, literature, and leisure activities were a reflection of the time
- Discuss the effects on society of new technologies of this between wars era, including: communication, transportation, manufacturing
- Describe the causes, course, character, and effects of World War II, including: legacy of WW I, campaigns and strategies, atomic bomb, significant military, political, and scientific leaders, the Big Four, United Nations, United States changing world status, war crimes trials
- Describe the causes, course and effects of the Holocaust, including: "Aryan supremacy," Nuremburg Laws, Kristallnacht, "Final Solution," concentration and death camps, creation of Israel
- Describe the causes and effects of the Cold War, including: Marshall Plan, Berlin, NATO, Egypt, Israel, Afghanistan, Japan, Korea, Vietnam, Cuba, United States

GEOGRAPHY (Continued)

- Compare and contrast how changes in the physical environment can increase or diminish its capacity to support human activity
- Analyze the patterns of use, the changing distribution, and the relative importance of Earth's resources
- Analyze the ways in which physical features and human characteristics of places and regions have influenced the evolution of significant historical events

HISTORY

It is expected that students will:

- Analyze and develop a position on a current event
- Frame and evaluate historical questions from multiple viewpoints
- Describe technological innovations of early agricultural societies, including: development of agriculture, domestication of animals, development of permanent communities
- Describe the unique political, economic, religious, social, technological, and cultural contributions of ancient and classical civilizations including: Africa, the Americas, China, Greece, Hebrew kingdoms, India, Mesopotamia, Phoenicia, Rome
- Describe the rise of commercial trading centers and their effects on social, political, and economic institutions
- Examine the impact of technological, mathematical, and artistic developments of the Renaissance
- Analyze interactions among Native Americans, Europeans, and Africans
- Describe the similarities and differences of European colonial communities in North America in terms of politics, religion, language, economics, and social customs
- Explain the impact of world commerce, including the African slave trade on Europe, Africa, and the Americas
- Describe the causes and effects of wars with Europeans, including the French and Indian War
- Describe the events, course, and results of the American Revolutionary War, including the contributions of African Americans and Native Americans
- Describe the issues involved in the ratification of the Constitution, including: main ideas of *The Federalist Papers*, main ideas of the Anti-Federalists, the Bill of Rights

PROBLEM SOLVING

It is expected that students will:

- Solve theoretical, practical, and work-related problems integrating geometry, right triangle, trigonometry, and algebra
- Model theoretical, practical, and real-world problems using multiple representations including matrices and graphs
- Reinforce and maintain basic mathematical skills necessary for further study
- Design and present graphical results of a statistical experiment

MATHEMATICAL COMMUNICATION

It is expected that students will:

- Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems
- Identify and translate key words and phrases that imply mathematical operations
- Use physical materials, diagrams, models, pictures, writing, and tables to represent and then communicate mathematical ideas through oral, verbal, and written formats
- Explain and justify thinking about mathematical ideas and solutions
- Make conjectures and present arguments in discussions of mathematical ideas
- Use everyday language to explain thinking about strategies and solutions to mathematical problems
- Express mathematical ideas and use them to define, compare, and solve problems orally and in writing
- Use mathematical notation to communicate and explain mathematical situations

MATHEMATICAL REASONING

It is expected that students will:

- Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems
- Apply deductive and inductive reasoning in mathematical situations to extend logical reasoning

Ninth Grade–Mathematics

MATHEMATICAL REASONING (Continued)

- Ask questions to reflect on, clarify, and extend thinking
- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems

MATHEMATICAL CONNECTIONS

It is expected that students will:

- Link new concepts to prior knowledge
- Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics
- Use models to explain the relationship of concepts to procedures
- Identify practical applications of mathematical principles that can be applied to other disciplines
- Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science)
- Identify, explain, and use mathematics in everyday life

Ninth Grade–Science

Instruction in ninth grade science provides opportunities for application and analysis of concepts in the nature of science and its role in society and technology. Principles of scientific inquiry are demonstrated and examined with topics covered in the physical, life, earth and space sciences.

THE NATURE OF SCIENCE—Scientific Inquiry

It is expected that students will:

- Organize, group and manipulate statistical data into graphs and reports
- Observe and match the connection between data and conclusions in investigations
- Define and sort through various data resources filtering important and unimportant information
- Observe and report relationships

Eleventh Grade – Social Studies

ECONOMICS (Continued)

- Explain why government intervenes in markets in response to externalities
- Explain how fiscal policy affects production, employment, and price levels (e.g., the effects of changes in government spending and taxation)
- Determine how a change in exchange rates affects the ability of residents of one country to consume products from other countries

GEOGRAPHY

It is expected that students will:

- Use a variety of tools and technologies to select and design appropriate forms of maps, graphs, diagrams, tables, or charts to organize geographic information
- Use quantitative methods of analysis to make inferences and draw conclusions from maps and other geographic representations
- Select appropriate maps, map projections, and other representations to analyze and interpret geographic information
- Construct complex, accurate maps and models from memory to answer questions about the location of human and physical features
- Determine how relationships between humans and the physical environment lead to the development of and connections among places and regions
- Analyze selected historical issues and questions using the geographic concept of regions
- Describe and analyze how interactions of the four basic physical systems (atmosphere, biosphere, lithosphere, and hydrosphere) affect different regions of the US and the world
- Propose solutions to environmental problems using the concept of ecosystems
- Analyze how history has been affected by the movement of people goods, and ideas
- Analyze how location and distance connect and influence economic systems at local, national, and international levels
- Relate the level of economic development to the quality of life in developing and developed countries

CIVICS (Continued)

- Explain symbols and documents of a nation and how they represent its identity
- Describe the unique role of tribal governments within the United States
- Identify and analyze the effectiveness of US foreign policy in dealing with international problems and concerns including: diplomacy, economic policy, humanitarian aid, military intervention

ECONOMICS

It is expected that students will:

- Examine decisions made by individuals, businesses, and government by comparing the marginal benefits and marginal costs
- Using real Gross Domestic Product per capita as a measure of the standard of living, describe how living standards have changed over time
- Explain and give examples of the costs of unemployment to the economy as a whole (e.g., lost income, lost tax revenue, and additional welfare burdens)
- Explain why a real interest rate accurately measures the benefit of saving or the cost of borrowing
- Use the concepts of supply and demand to analyze and predict the price changes occurring in markets for goods and services
- Use the concept of price elasticity to analyze how buyers and sellers might adjust their purchase and sales decisions in response to price changes
- Discuss how labor unions affect employees and employers
- Identify current or historical mergers, buyouts, and acquisitions
- Explain how the Federal Reserve influences bank loan activity using the reserve requirement, discount rate, and open market operations
- Compare the benefits and costs of allocating resources through markets or government
- Use the multiplier concept to explain why an initial change in spending (by consumers, firms, or governments) can result in a larger change in national income
- Examine government's impact on investment through taxes, fees, government regulation, enterprise zones, and subsidies

THE NATURE OF SCIENCE—Science, Technology, and Society

It is expected that students will:

- Dramatize how systems can be changed from the interaction of components
- Define and identify different view positions
- Identify and describe various historical frameworks of knowledge categories and methods

PHYSICAL SCIENCE—Matter

It is expected that students will:

- Demonstrate and illustrate how particles can be arranged differently for the same substance
- Classify elements by gathering information and sorting their properties
- Compare and contrast various types of mixtures
- Demonstrate the characteristics of atomic bonding
- Demonstrate the changes that occur in physical states by chemical changes
- Demonstrate and illustrate atomic structures in matter
- Select and illustrate properties of various elements based on their atomic makeup
- Demonstrate the differences between various elements in stable and combined elemental states

PHYSICAL SCIENCE—Forces and Motion

It is expected that students will:

- Classify and distinguish between various magnetic and electric forces
- Compare various objects that react to magnetic imposition
- Speculate on the consequences of unbalanced motion
- Explain why an object will move in a particular way for a certain set of conditions

Ninth Grade–Science

LIFE SCIENCE—Heredity

It is expected that students will:

- Distinguish between different genetic transference
- Organize a study of inherited characteristics over several propagations of plant and animal life
- Classify organisms by their shared characteristics, justify the decisions made in the process
- Illustrate through examining several life forms the interaction between environment and genetics

LIFE SCIENCE—Structure of Life

It is expected that students will:

- Document and report on alterations to life systems caused by infection
- Illustrate different organisms and compare their complexity
- Show how combinations of cells work together; identify cells that have specialty assignments in larger organisms
- Classify and organize different cells by their function within one organism

LIFE SCIENCE—Organisms and Their Environment

It is expected that students will:

- Classify different webs of an ecosystem
- Define and observe the characteristics of different physical environments
- Observe and list changes that have occurred in ecosystems through the cycles of the Earth
- Construct an ecosystem simulation
- Observe and define the various regions of Nevada

LIFE SCIENCE—Diversity of Life

It is expected that students will:

- Classify various species by their characteristics
- Map genetic passage from one generation to another
- Define and observe DNA alterations to organisms
- Identify, sort and list fossil evidence
- Observe the characteristics of various animal and plant fossil evidence
- Show how an organism's behavior is connected to its evolutionary history

Eleventh Grade – Science

EARTH AND SPACE SCIENCES—Earth's Composition and Structure (Continued)

- Compare the life cycles of various forms of life within one ecosystem; contrast life cycles between various ecosystems
- Match organisms to their physical environment identifying the positive and negative aspects of their interaction
- Select and show different cultural characteristics and progression delineating between the industrialized, technological and third world countries
- Select and organize Earth's energy sources by culture, society and ecosystems

Eleventh Grade – Social Studies

Eleventh grade students formulate, imagine and invent solutions and scenarios through their previous research experiences the connections and interactions between their study of United States history, its inhabitants and its institutions with those around the globe using the lens of economic, political, social, and technological ideas.

CIVICS

It is expected that students will:

- Explain the concept of the rule of law in the establishment of the US Constitution
- Identify and explain changes in the interpretation and application of the US Constitution
- Explain the system of checks and balances in the design of the US Constitution
- Describe the trial process including the selection and responsibilities of jurors
- List the ways the Supreme court determines policy, including: judicial review, interpreting laws, overruling and revising its previous decisions
- Use examples to illustrate the supremacy clause in defining the relationship between state and national governments
- Analyze the role that television and other media play in the process of political persuasion
- Identify propaganda and persuasion in political advertising and literature

Eleventh Grade – Science

EARTH AND SPACE SCIENCES—Atmospheric Processes and the Water Cycle

It is expected that students will:

- Explain the relationship between the sun and the Earth
- Observe and define changes that have occurred in the Earth's atmosphere over time
- Illustrate the characteristics of the greenhouse effect
- Explain the properties and actions of heat energy; explain its various manifestations
- Observe the conditions of wind and ocean currents

EARTH AND SPEACE SCIENCES—Solar System and Universe

It is expected that students will:

- Observe, label and sort common and differing characteristics of stars
- Explain the concept and conditions that result in nuclear fusion
- Define and list various technologies in use to explore the universe
- Identify the process of gathering evidence relative to the universe
- Describe the elements that are in contrast and alike between different phenomena in the universe focusing on their interaction and motion

EARTH AND SPACE SCIENCES—Earth's Composition and Structure

It is expected that students will:

- Explain, document and review the connection between fossil evidence and time
- Define and observe various landforms; observe various forms of weathering and erosion
- Define and sort the various cycles of living and non-living forms; observe the characteristics of a global system
- Illustrate and show the composition of various soil layers
- Explain recycling and renew-ability in and of various resources; review the efficiency and viability of various processes for renewing resources

Ninth Grade–Science

EARTH AND SPACE SCIENCES—Atmospheric Processes and the Water Cycle

It is expected that students will:

- Infer and speculate on how seasonal environments and variations are part of every planet; speculate and imagine those environments
- Illustrate the role of water in the Earth's ecosystem
- Identify the components of the greenhouse effect
- Illustrate atmospheric patterns and its causes

EARTH AND SPACE SCIENCES—Solar System and Universe

It is expected that students will:

- Explain and document the interaction between various components of the universe
- Illustrate the differing characteristics of various planets in our solar system including the Earth
- Explain how phenomena have predictable motion and cycles

EARTH AND SPACE SCIENCES—Earth's Composition and Structure

It is expected that students will:

- Select and organize rocks and fossil evidence by similar and contrasting characteristics
- Illustrate how landforms can be altered by various forces
- Explain where and why certain elements are located on the Earth
- Sort different contrasting evidence of different soil samples; identify the elements that support or inhibit life
- Illustrate and map resources by their abundance, accessibility, and renew-ability to areas of the Earth; report on the possibility of difficulty in sustaining and procuring necessary resources; speculate on alternatives to resources and consequences of their unavailability
- Define the characteristics of various life stages
- Show how changes in a physical environment can be harmful
- Show how technologies influence the environment
- Define the elements that make up different cultures and countries; observe how their environment is dictated by resources or the ability to obtain resources
- Illustrate how the constancy of one energy source has changed a society; illustrate how the change in energy source has created

Ninth Grade–Social Studies

Ninth grade students examine, explain and demonstrate the connections and interactions between their study of United States history with the inhabitants around the globe using the lens of economic, political, social, and technological ideas.

CIVICS

It is expected that students will:

- Explain the influence of social contract theory, natural rights philosophy, and republicanism in the Declaration of Independence, the Articles of Confederation, and the US Constitution
- Describe the creation of laws through the legislative process
- Discuss enumerated and implied powers of the US Congress
- Give examples of governmental powers (such as the power to tax, declare war, and issue drivers' licenses) that are distributed between the state and national governments
- Analyze the roles and function of factions within political parties and the role of parties in public policy and politics
- Identify the impact of interest groups on the political process
- Explain the necessity of the Bill of Rights for a democratic society
- Explain the structure and function of state and local governments
- Describe the purpose of the United Nations
- List and describe non-governmental international organizations, such as the World Bank, Amnesty International, and the International Red Cross

ECONOMICS

It is expected that students will:

- Use the concept of opportunity cost to evaluate the tradeoffs when choices occur
- Given data on population and the Gross Domestic Product for several countries, determine the per capita Gross Domestic Product, and compare with the US
- Use the consumer price index to compare the buying power of the US Dollar in one year with its buying power in another year
- Explain the relationship between buyers and sellers in terms of supply and demand in light of prices
- Explain why not-for-profit organizations are tax exempt

Eleventh Grade – Science

LIFE SCIENCE—Structure of Life

It is expected that students will:

- Explain and observe characteristics of disease; observe and differentiate between healthy and unhealthy behaviors
- Identify and explain the parts of a cell
- Identify different cells and their varying structure in the human body

LIFE SCIENCE—Organisms and Their Environment

It is expected that students will:

- Identify and label the life cycles of Earth
- Sort, classify and select various organisms based on their physical environment
- Illustrate changes to organisms that occur when an ecosystem is altered
- Examine and speculate on the environmental impact of certain societal actions; examine positive and negative situations
- Identify the requirements necessary for sustaining a viable ecosystem
- Imagine and speculate on development in various areas of the Nevada environment

LIFE SCIENCE—Diversity of Life

It is expected that students will:

- List and define those characteristics that can be passed between parents and offspring
- Define the elements that delineate DNA molecules and their process of assemblage
- Show the relationships between various organisms based on their evolution
- Show the similarities or differences between organisms that have had the same DNA alterations
- Organize and illustrate the evidence of fossil records; show the connection between these records and evolutionary development
- Explain the causes of species extinction
- Identify and sort various levels of biological diversity
- Identify the elements of natural and artificial selection

Eleventh Grade – Science

PHYSICAL SCIENCE—Forces and Motion

It is expected that students will:

- Define the nature of various forces and their sub-definitions
- Define the different levels and strength of force
- Define the characteristics of gravitational force and observe it's variations
- List and define the laws of motion
- Compare various objects' motion through similar and contrasting conditions

PHYSICAL SCIENCE—Energy

It is expected that students will:

- Observe and define aspects of the sun's energy influence on the Earth
- Define and observe different forms of wave and vibration energy
- Define and observe the conversion of material into energy
- Define and observe the applications of nuclear reactions
- Define and observe various energy forms and their conversion
- Define the concepts of temperature as related to forms of energy and its particles
- Explain and describe various conductors of electricity

LIFE SCIENCE—Heredity

It is expected that students will:

- Define and observe the properties of DNA genetic coding
- Define and label the different aspects of genes and DNA. Observe their role in organic structures
- Observe cell growth and changes in various organisms
- Identify and recognize cell mutations
- Explain characteristics and patterns that can be passed forward to different generations of plants and animals

Ninth Grade–Social Studies

ECONOMICS (Continued)

- Explain why the money supply increases when banks make loans
- Explain how the current utilization of a productive resource affects the availability of the resource in the future
- Explain that the wage an individual earns is affected by his or her productivity and by the market value of the goods or services he or she produces
- Identify the benefits and the costs of investing in new physical capital and new human capital
- Give examples of activities that benefit participants, yet harm non-participants
- Explain how governments use tariffs or quotas to restrict trade
- Describe some characteristics of non-US economies that affect international trade

GEOGRAPHY

It is expected that students will:

- Create and prepare various forms of maps, graphs, diagrams, tables, or charts to organize geographic information
- Evaluate and analyze information obtained from a variety of geographic sources
- Compare and contrast the characteristics and purposes of several types of maps, map projections, and other geographic representations
- Make and defend a spatial decision using basic geographic vocabulary and concepts
- Relate how places and regions are important to the expression of cultural identity
- Apply the concept of region to examine current events
- Apply the concept of region to organize and study a geographic issue
- Explain how the physical processes within each of the four basic systems (atmosphere, lithosphere, hydrosphere, and biosphere) influence the Earth's surface

GEOGRAPHY (Continued)

- Describe the characteristics of different populations through the use of key demographic concepts
- Describe the factors that influence the location and distribution of economic activities
- Describe the forces of conflict and cooperation as they affect the way the world is divided among independent nations
- Compare and contrast the opportunities and constraints that the physical environment places on human activity
- Describe how humans prepare for and react to natural hazards
- Select a current event and relate it to the physical and human characteristics of place

HISTORY

It is expected that students will:

- Evaluate sources of historical information based on: bias, credibility, cultural context, reliability, time period
- Locate ancient and classical civilizations in time and place, including: China, Egypt, Greece, India, Mesopotamia, Rome
- Describe the Viking exploration of North America
- Identify and describe the characteristics of European feudalism
- Identify the influence of the Enlightenment on the Western World, including: fine arts, government, literature, philosophy, science
- Describe Native North American cultural regions, such as: Southwest, Southeast, Northeast, Northwest, California, Great Basin, Plains, Plateau, Arctic, Sub-Arctic
- Compare the lifestyles of Native Americans with those of the colonists
- Describe how Islamic empires were a link between Africa, Europe, and Asia
- Describe major inventions of the Industrial Revolution including: steam engine, textile machines
- Explain why the Constitution was written
- Identify the principles of the Bill of Rights

Eleventh grade science provides opportunities for synthesis, speculation, analysis, differentiation and research of concepts in the nature of science and its role in society and technology. Principles of scientific inquiry are classified, sorted and debated with topics covered in the physical, life, earth and space sciences.

THE NATURE OF SCIENCE—Scientific Inquiry

It is expected that students will:

- Define, sort and list various types of information recognizing their various forms
- Classify and distinguish between various types of data reports and the conclusions generated by that data
- Show and illustrate the use of various types of data to draw conclusions
- Examine, illustrate and demonstrate cause and effect relationships

THE NATURE OF SCIENCE—Science, Technology, and Society

It is expected that students will:

- Observe how changes can affect a system
- Frame various situations from different viewpoints, belief systems and event interpretation
- Select from differing systems of knowledge an appropriate avenue of pursuit of knowledge

PHYSICAL SCIENCE—Matter

It is expected that students will:

- Define and identify various molecular configurations
- Group various elements by examining similar characteristics
- Define the properties that can be contained in mixtures
- Define how atomic bonding is envisioned
- Observe and list characteristics of various chemical reactions
- Define and sort differing possibilities of chemical reactions with different chemicals and elements
- Observe, list and define the relationship of elements with isotopes
- Explain how atoms can have electrical charge

MATHEMATICAL COMMUNICATION (Continued)

- Use everyday language to explain thinking about strategies and solutions to mathematical problems
- Express mathematical ideas and use them to define, compare, and solve problems orally and in writing
- Use mathematical notation to communicate and explain mathematical situations

MATHEMATICAL REASONING

It is expected that students will:

- Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems
- Apply deductive and inductive reasoning in mathematical situations to extend logical reasoning
- Ask questions to reflect on, clarify, and extend thinking
- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems

MATHEMATICAL CONNECTIONS

It is expected that students will:

- Link new concepts to prior knowledge
- Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics
- Use models to explain the relationship of concepts to procedures
- Identify practical applications of mathematical principles that can be applied to other disciplines
- Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science
- Identify, explain, and use mathematics in everyday life

HISTORY (Continued)

- Explain issues, events, and the roles of key people related to the development of United States political institutions, including: Washington's administration, The Marshall Court, judicial review, extension of suffrage, political parties
- Identify key people and events in the social reform movements of antebellum United States, including: Dorothea Dix, Horace Mann, Sojourner Truth, Seneca Falls Declaration
- Explain the issue of Manifest Destiny and the events related to the expansion of the United States, including: Louisiana Purchase, removal of the Eastern tribes, Oregon and California Trails, Mexican War and Mexican War acquisitions, California Gold Rush, Homestead Act
- Explain the events that led to Nevada statehood, including: Comstock Lode, Election of 1864
- Discuss the interactions between settlers and Native Americans during the westward expansion, including: Ghost Dance/ Wounded Knee, Little Big Horn
- Describe the role of farming, railroads, mining in the settlement of the West
- Identify American industrialists and their contributions, including: Andrew Carnegie, Henry Ford, John D. Rockefeller
- Describe the development of the women's suffrage movement and the passage of the 19th Amendment
- Explain the causes and effects of the Mexican Revolution of 1911
- Define Totalitarianism
- Describe the causes of the Great Depression and the policies and programs of the New Deal and their effects on social, political, economic, and diplomatic institutions
- Explain why the United Nations was involved in the Korean War and the outcome of its involvement
- Describe the impact of the United States Military and atomic testing in Nevada
- Identify the significance to United States political culture of the following: Watergate, Iranian hostage crisis, Iran-contra Affair
- Describe the significance of the breakup of the USSR, including: fall of the Berlin Wall
- Identify the causes and effects of the Persian Gulf War

Tenth Grade – Language Arts/ Reading

Instruction in this area expands and stresses students' reading, writing, speaking, listening, and research skills. The skills of research, literary analysis and critical thinking will be further developed.

WORD KNOWLEDGE

It is expected that students will:

- Apply knowledge of prefixes, suffixes, and roots to determine word meaning
- Use context clues to determine word meaning
- Differentiate between objective/subjective language and connotation/denotation of words

THE READING PROCESS

It is expected that students will:

- Apply reading process skills and strategies to aid comprehension
- Determine the main idea of various types of text
- Adjust reading rate and strategies appropriate to text and purpose
- Draw conclusions and make inferences based on evidence from text

GRAMMAR, USAGE, AND MECHANICS

It is expected that students will:

- Write using standard English grammar, usage, and mechanics
- Construct various types of sentences
- Correct sentence errors
- Develop individual writing style
- Avoid common stylistic errors
- Write using effective transitions

Eleventh Grade – Mathematics

PROBLEM SOLVING (Continued)

- Apply previous experience and knowledge to new problem-solving situations
- Verify, interpret, and evaluate results with respect to the original problem situation, determining on efficient strategy for the given situation
- Try more than one strategy when the first strategy proves to be unproductive
- Generalize solutions and strategies from earlier problems to new problem situations
- Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable
- Use technology, including calculators, to understand quantitative relationships (e.g., for skip counting and pattern exploration)
- Use technology, including calculators, to investigate, define, and describe qualitative relationships such as patterns and functions
- Solve real-world problems using appropriate formulas, relations, and functions, and properties
- Solve real-world problems using direct and indirect methods
- Solve real-world problems using appropriate strategies and tools
- Generalize conclusions, make inferences, and justify reasonableness of mathematical problems

MATHEMATICAL COMMUNICATION

It is expected that students will:

- Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems
- Identify and translate key words and phrases that imply mathematical operations
- Use physical materials, diagrams, models, pictures, writing, and tables to represent and then communicate mathematical ideas through oral, verbal, and written formats
- Explain and justify thinking about mathematical ideas and solutions
- Make conjectures and present arguments in discussions of mathematical ideas

Eleventh Grade – Mathematics

Eleventh grade students use mathematical sequencing in learning logical methodologies. Inductive and deductive systems of reasoning are developed. Emphasis is on developing visualization abilities, analytical skills, and logical reasoning through activity oriented instruction. Fluency in previous mathematical concepts is expected as students compose and formulate mathematical explanations for objects and phenomenon.

REASONING AND LOGIC

It is expected that students will:

- Justify and solve problems using geometric models and tools
- Solve problems using the rules of logic and Venn diagrams
- Solve real-world problems involving plane figures and three-dimensional objects
- Justify and solve problems using geometric constructions
- Design proofs using deductive and inductive methods, indirect, paragraph, flow, and two-column formats
- Use technology to extend problem-solving strategies, develop reasoning and communication skills, and increase the students ability to inquire

CONNECTING GEOMETRY AND ALGEBRA

It is expected that students will:

- Represent and solve problems using transformations and tessellations
- Solve real-world problems using properties of congruence, similarity, and symmetry
- Solve real-world problems involving properties of polygons, circles, and the Pythagorean theorem
- Develop strategies for computing the area, perimeter, volume, and surface area of objects
- Develop estimation skills and accuracy in direct and indirect measurement
- Represent and solve problems using coordinate geometry

PROBLEM SOLVING

It is expected that students will:

- Select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts

Tenth Grade – Language Arts/ Reading

COMPOSITION

It is expected that students will:

- Apply the five stages of the writing process
- Apply the holistic rubric of the Nevada State Proficiency Exam in Writing
- Write with clarity and express ideas concisely
- Write various forms of business communication
- Write a variety of compositions appropriate to audience and purpose
- Write expository, persuasive, narrative, and descriptive compositions
- Revise and edit independently
- Paraphrase information accurately
- Write a research paper citing sources according to a given format

LITERATURE/INFORMATIONAL TEXT

It is expected that students will:

- Read and respond to a broad range of classic and contemporary literature
- Analyze literary elements of various types of literature
- Recognize and interpret poetic and literary devices
- Identify author's purpose or viewpoint
- Analyze use of text features and rhetorical strategies
- Read and follow multi-step directions
- Identify the main idea and supporting details
- Differentiate between fact and opinion
- Summarize and synthesize information from primary and secondary sources

Tenth Grade – Language Arts/ Reading

COMMUNICATION/STUDY SKILLS

It is expected that students will:

- Apply standard English to communicate
- Participate in organized verbal exchanges
- Employ appropriate speaking techniques
- Coherently and concisely defend responses and opinions
- Employ constructive feedback using given criteria
- Practice effective listening skills
- Solve problems and find solutions as a member of a team
- Recite literary, dramatic, and original works
- Summarize communications that inform, persuade, and entertain
- Apply effective reading strategies for study
- Practice effective study habits
- Practice effective test-taking strategies

Tenth Grade–Mathematics

Instruction in tenth grade mathematics is built on continuing studies that include working with equations, graphing, and problem-solving strategies. Students are expected to become fluent in solving problems which require the integration of a variety of mathematical concepts.

POLYNOMIALS AND RATIONAL EXPRESSIONS

It is expected that students will:

- Solve problems using the properties of real numbers
- Add, subtract, multiply, divide, and factor polynomials
- Solve problems using powers and radicals
- Evaluate algebraic expressions
- Simplify rational algebraic expressions

Eleventh Grade – Language Arts/Reading

COMPOSITION (Continued)

- Write various forms of business communication appropriate to purpose and audience
- Write a variety of compositions that support a thesis statement with meaningful details and an appropriate conclusion
- Write using appropriate transitions
- Demonstrate unity and coherence in writing
- Write persuasive, expository, narrative, and descriptive compositions
- Accurately paraphrase information
- Write a research paper citing sources according to a given format

LITERATURE/INFORMATIONAL TEXT

It is expected that students will:

- Read and analyze a broad range of classic and contemporary literature
- Analyze literary elements of various types of literature
- Recognize and interpret poetic and literary devices
- Identify author's purpose or viewpoint
- Analyze the use of text features and rhetorical strategies in primary source documents
- Synthesize multiple primary and secondary sources to support positions
- Critique the power, logic, and appeal of arguments advanced in texts
- Distinguish between fact and opinion

COMMUNICATION/STUDY SKILLS

It is expected that students will:

- Apply standard English to communicate
- Employ appropriate speaking and listening techniques in a variety of formal and informal speaking situations
- Coherently and concisely defend responses and opinions in a discussion
- Employ given criteria to give constructive feedback
- Participate as a member of a team to synthesize, respond, and solve problems
- Create a multi-media presentation based on research
- Review and apply effective listening skills
- Apply effective treading strategies for study
- Take organized notes from lecture, text, and various media
- Apply effective test-taking strategies

Eleventh Grade – Language Arts/Reading

Eleventh grade students continue to hone and develop their writing skills. A variety of literature is studied as a basis for critical analysis and composition. Listening, speaking, reading, and research skills continue to be expanded. Students are expected to formulate their ideas, research them and present them in oral and written forms.

WORD KNOWLEDGE

It is expected that students will:

- Manipulate words and word parts for the purpose of using words appropriately in context
- Use context clues to determine word meaning
- Use synonyms, antonyms, and homonyms appropriately and effectively in writing
- Differentiate between connotation/denotation and emotive/objective language
- Apply knowledge of syntax and literary allusions to determine word meaning

THE READING PROCESS

It is expected that students will:

- Apply reading process skills and strategies to aid comprehension
- Use a variety of strategies to repair comprehension
- Determine main ideas in various types of text
- Make inferences based on evidence from text

GRAMMAR, USAGE, AND MECHANICS

It is expected that students will:

- Write using standard English grammar, usage, and mechanics
- Write effective sentences
- Develop individual writing style by avoiding stylistic errors
- Use transitions and active/passive voice appropriately in writing

COMPOSITION

It is expected that students will:

- Apply the five stages of the writing process
- Apply the skills required by the Nevada State Proficiency Exam in Writing
- Write with clarity and express ideas concisely

Tenth Grade–Mathematics

EQUATIONS AND SYSTEMS OF EQUATIONS

It is expected that students will:

- Solve and graph linear equations and inequalities in one and two variables, including absolute value and radicals
- Solve problems involving coordinate geometry: determine the slope, identify the x– and y– intercepts, and derive the equation of a line
- Explore the effects of how changes in one variable affects other relationships
- Distinguish between functions and relations, and be able to identify given ranges and domains
- Solve quadratic equations and inequalities using the quadratic formula, zero product property, and completing the square

PROBLEM SOLVING

It is expected that students will:

- Select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts
- Apply previous experience and knowledge to new problem-solving situations
- Verify, interpret, and evaluate results with respect to the original problem situation, determining an efficient strategy for the given situation
- Try more than one strategy when the first strategy proves to be unproductive
- Generalize solutions and strategies from earlier problems to new problem situations
- Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable
- Use technology, including calculators, to understand quantitative relationships (e.g., for skip counting and pattern exploration)
- Use technology, including calculators, to investigate, define, and describe qualitative relationships such as patterns and functions
- Solve real-world problems using appropriate formulas, relations, and functions, and properties

PROBLEM SOLVING (Continued)

- Solve real-world problems using direct and indirect methods
- Solve real-world problems using appropriate strategies and tools
- Generalize conclusions, make inferences, and justify reasonableness of mathematical problems

MATHEMATICAL COMMUNICATION

It is expected that students will:

- Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems
- Identify and translate key words and phrases that imply mathematical operations
- Use physical materials, diagrams, models, pictures, writing, and tables to represent and then communicate mathematical ideas through oral, verbal, and written formats
- Explain and justify thinking about mathematical ideas and solutions
- Make conjectures and present arguments in discussions of mathematical ideas
- Use everyday language to explain thinking about strategies and solutions to mathematical problems
- Express mathematical ideas and use them to define, compare, and solve problems orally and in writing
- Use mathematical notation to communicate and explain mathematical situations

MATHEMATICAL REASONING

It is expected that students will:

- Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems
- Apply deductive and inductive reasoning in mathematical situations to extend logical reasoning
- Ask questions to reflect on, clarify, and extend thinking
- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems

HISTORY (Continued)

- Explain the causes and results of the Industrial Revolution
- Describe the Constitution's underlying principles, including: checks and balances, federalism, limited government, popular sovereignty, separation of powers
- Describe achievements in European fine arts and literature
- Describe the social reform and religious movements of antebellum United States which attempted to enhance life, including: education reform, prison and mental health reform, religious revival, Utopian movement, women's rights
- Explain abolitionism and describe the importance of abolitionists and slave revolts, including: John Brown, Frederick Douglass, William Lloyd Garrison, Harriet Beecher Stowe, Nat Turner
- Describe federal policy toward Native Americans including: Dowes Act/ Indian Reorganization Act of 1934, Indian Boarding Schools, Indian Citizenship Act of 1924, Plains Wars, reservation system
- Describe the causes, issues, and effects of the Populist Movement
- Describe the development of corporate capitalism, including: J.P. Morgan, mass production, vertical and horizontal integration/consolidation
- Explain the origins and issues involved in the labor movement
- Discuss the causes, characteristics, and consequences of European and Japanese expansion
- Describe the rise of totalitarian societies in Europe, Asia, and Latin America
- Describe how cultural developments in the arts, education, media, and leisure activities reflected and changed United States society
- Describe the cause, course, and character of the Korean War, including: United Nations Security Council, Pusan Perimeter, General MacArthur, Inchon, Yalu River, 38th Parallel
- Explain how and why African and Asian people achieved independence from colonial rule
- Describe the major issues, events, and key people of the Civil Rights and minority rights movements, including: Black Power Movement, United Farm Workers, American Indian Movement, Viva La Raza, Women's Rights Movement, Americans with Disabilities Act, Civil Rights Act of 1964
- Summarize the influence of art, music, literature, and the media on United States society
- Explain the causes and effects of the Persian Gulf War, including: Kuwait invasion, world oil supply, changing alliances
- Describe the changing political climate in the United States, including: the role of the media, the Clinton Impeachment

Tenth Grade–Social Studies

GEOGRAPHY (Continued)

- Describe the causes and consequences of natural hazards that shape features and patterns on the Earth
- Analyze demographic trends in world population
- Analyze and evaluate international economic issues from a spatial perspective
- Analyze how different cultures, points of view, and self interests influence conflict and cooperation over territory and resources
- Describe the ways in which technology has affected the human capacity to modify the physical environment and evaluate the possible regional or global impact
- Develop possible responses to changes caused by human modification of the physical environment
- Relate current events to the physical features and human characteristics of places and regions

HISTORY

It is expected that students will:

- Explain the sequence and relationship of events on a tiered time line
- Analyze and interpret historical content from informational tools, including: charts, diagrams, graphs, maps, political cartoons, photographs, tables
- Identify and describe the characteristics of pre-agricultural societies
- Describe the characteristics of European feudalism
- Explain the development of European hereditary monarchies and their effects on: centralized government, commerce and trade, religion
- Explain the roles of nationalism, economics, and religious rivalries in the Age of Exploration
- Compare common elements of Native North American societies, including: communication, economic systems, housing, political systems, social systems, traditions
- Describe the contributions and social, political, and economic characteristics of African, Chinese, Indian, and Japanese civilizations
- Describe the ideas of John Locke, Thomas Paine, and Thomas Jefferson and their influences on the American Revolution and the formation of the United States

Tenth Grade–Mathematics

MATHEMATICAL CONNECTIONS

It is expected that students will:

- Link new concepts to prior knowledge
- Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics
- Use models to explain the relationship of concepts to procedures
- Identify practical applications of mathematical principles that can be applied to other disciplines
- Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science)
- Identify, explain, and use mathematics in everyday life

Tenth Grade–Science

Tenth grade science provides opportunities for analysis, differentiation and research of concepts in the nature of science and its role in society and technology. Principles of scientific inquiry are classified, sorted and debated with topics covered in the physical, life, earth and space sciences.

THE NATURE OF SCIENCE—Scientific Inquiry

It is expected that students will:

- Examine various statistical models, graphs and reports
- Explain how various conclusions can be derived from data
- Review and report on various data usage in argument and research
- Explain cause and effect relationships

THE NATURE OF SCIENCE—Science, Technology, and Society

It is expected that students will:

- Speculate and propose possible changes to systems by the interjection of new elements into a system
- Review various differing views of a particular phenomena
- Explain various frameworks of knowledge

Tenth Grade–Science

PHYSICAL SCIENCE—Matter

It is expected that students will:

- Compare different substances while holding certain conditions constant
- Define and record characteristics of different elements
- Formulate conclusions based on observation regarding the makeup of various mixtures
- Compare and contrast differing configurations of atomic bonding
- Speculate on various chemical reaction possibilities
- Distinguish and classify between different elements and matter due to their atomic structure
- Define electrical polarity in atomic structures

PHYSICAL SCIENCE—Forces and Motion

It is expected that students will:

- Imagine a machine or system that would take advantage of differing forces and their variants
- Plan a demonstration or a simple machine taking advantage of magnetic and gravitational attributes
- Research and evaluate past activities in history that utilized balanced and unbalanced forces
- Graphically illustrate and reconstruct the motion of a particular object

PHYSICAL SCIENCE—Energy

It is expected that students will:

- Speculate on adaptations necessary to adjust to variations in the relationship between the Earth and the sun
- Contrast different light spectrums and their uses
- Contrast different wave forms and their benefits and detriments to life and objects
- Differentiate between different physical, chemical and nuclear reactions charting various data produced
- Imagine the results from various energy transformations through speculative interactions

Tenth Grade–Social Studies

ECONOMICS (Continued)

- Using a price index to measure inflation, identify when the US economy has experienced high and low rates of inflation and discuss their effects
- Use supply and demand to explain how interest rates are determined
- Explain the advantages and disadvantages of each of the three primary forms of business organizations: sole proprietorship, partnership, and corporation
- Describe the nation's current money supply measures
- Discuss how an economy determines what goods and services will be produced, how they will be produced, and who will receive them
- Explain how and why changes in product demand can affect the price of the product, which in turn can affect the wages paid to a worker
- Describe the past, present, and future role of investment in enhancing economic growth and raising living standards
- Explain how individual self-interest, channeled through the marketplace, can increase the overall standard of living
- Explain why government provides public goods rather than allowing the market to provide them
- Explain why it is possible that a government decision may impose costs on many, but only benefit a few
- Describe how foreign economic events can impact the US economy

GEOGRAPHY

It is expected that students will:

- Locate and acquire a variety of primary and secondary information sources and assess the value of each
- Use a variety of complex maps to acquire geographic information (e.g., topographic, population, and land use)
- Apply concepts and models of spatial organization to make decisions about geographic information
- Explain why places and regions are important to cultural identity and can serve as forces for both unification and fragmentation
- Determine how technology affects the way cultural groups perceive and use places and regions

Tenth Grade–Social Studies

Tenth grade students research, interpret, debate and defend the connections and interactions between their study of United States history, its inhabitants and its institutions with those around the globe using the lens of economic, political, social, and technological ideas.

CIVICS

It is expected that students will:

- Describe the historic influences on early US documents, such as: Greek law, Magna Carta, Iroquois League
- Explain the importance of the jury process in a democratic society
- Describe the jurisdiction of the federal court system and the power of judicial review
- Provide contemporary examples of federalism
- Identify the influence of the media in forming public opinion
- Evaluate the significance of interest groups in the political process of a democratic society
- Describe the development of the Bill of Rights and provide a contemporary application
- Identify major conflicts in social, political, and economic life and analyze the role of compromise in the resolution of these issues
- Describe the differences between the local, state, and federal court systems
- Define and analyze the major economic systems of the world, including: capitalism, mixed economy, socialism, command economy
- Critique the role of international organizations, such as the United Nations and non-governmental organizations, in world affairs

ECONOMICS

It is expected that students will:

- Explain why choices and their costs may differ across individuals and societies
- Explain the difference between nominal Gross Domestic Product and real Gross Domestic Product
- Use various price indices to determine how the prices of different types of goods and services have changed

Tenth Grade–Science

PHYSICAL SCIENCE—Energy (Continued)

- Examine the different properties through real experiences of kinetic and potential energy
- Differentiate between different transfer sequences of heat through various objects and conditions
- Define and observe the transference of electricity

LIFE SCIENCE—Heredity

It is expected that students will:

- Examine, interpret and debate genetic engineering in different arenas of life; analyze the arguments regarding eugenics
- Compare two or more different alterations to the genetic code and report on its results
- Define and sort normal and abnormal cell growth
- Observe patterns of growth and adaptation by genetic and inherited trait alteration and sustainability

LIFE SCIENCE—Structure of Life

It is expected that students will:

- Organize and illustrate interventions that offset infection and the role they play in altering the system
- Observe cells and their actions and functions
- Define cell roles and functions

LIFE SCIENCE—Organisms and Their Environment

It is expected that students will:

- Identify and label aspects of an interdependent system
- Explain the relationships between life and its physical environment
- Review and explain situations that alter an ecosystem; debate the positive and negative aspects of this alteration
- Demonstrate and illustrate an alteration in the environment
- Define the elements, both essential and superfluous, that sustain or inhibit an ecosystem
- Explain the current status of Nevada's various regions in terms of its geology, water, climate and biological inhabitants

LIFE SCIENCE—Diversity of Life

It is expected that students will:

- Speculate on alterations that can occur to a species that will benefit or hinder its development
- Propose and speculate on interventions available for genetic passage
- Explain the connections between organisms based on their evolutionary sequence
- Explain different DNA alterations
- Explain the tracking of fossil evidence; identify and recognize various fossil evidence
- Identify the factors involved with species extinction; identify the elements of the natural selection process
- Project how organisms can alter their evolutionary history by their behavior

EARTH AND SPACE SCIENCES—Atmospheric Processes and the Water Cycle

It is expected that students will:

- Define the make-up and characteristics that differentiate the sun from a planet and in particular the Earth
- Compare the differences when there is an overabundance or scarcity of water resources on Earth
- Record local atmospheric conditions tracking moisture, temperature, conditions and pollutants
- Describe the characteristics of the greenhouse effect and it's consequences
- Sort the various energy fields by their characteristics
- Compare different atmospheric patterns throughout the Earth; examine atmospheric conditions on other planets explaining their cause

EARTH AND SPACE SCIENCES—Solar System and Universe

It is expected that students will:

- Illustrate how various components of the universe interact, are co-dependent, or in opposition to each other; test out various scenarios of interaction and conflict

Tenth Grade–Science

EARTH AND SPACE SCIENCES—Solar System and Universe

It is expected that students will:

- Illustrate how various components of the universe interact, are co-dependent, or in opposition to each other; test out various scenarios of interaction and conflict
- Compare and contrast different planets and their environments; speculate on the alterations necessary to sustain life as we know it
- Define and sort different aspects of the universe
- Define the range of differences in phenomena in the universe and

EARTH AND SPACE SCIENCES—Earth's Composition and Structure

It is expected that students will:

- Define the elements of geological time; define the characteristics of fossil evidence
- Speculate on the results of the interaction with various forces with landforms
- Illustrate the relationship between Earth's elements and living forms
- Explain the properties of different kinds and layers of soil
- Define and sort resources by their characteristics of renew-ability
- Describe the various stages in the cycles of life
- Debate how a physical environment alteration can be harmful or helpful
- Illustrate the positive and negative influences of technological change to the environment
- Explain the role of economics in determining patterns in the use and abuse of resources; identify the transition in some cultures from abundance to scarcity or obsolescence
- Explain how energy is used to sustain or cripple a culture