

TELLURIDE MOUNTAIN SCHOOL

Scope and Sequence

Mathematics

Upper School

Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
Geometry Nature of deductive reasoning; conditional statements, indirect and direct proof; lines and angles; congruence and similarity; properties of equality and inequality; parallel and perpendicular lines; symmetry; right triangle trigonometry; circles; quadrilaterals; polygons; geometric solids; area and volume; concurrence; introduction to non-Euclidian geometries; constructions with compass and straightedge; writing formal and informal proofs; philosophy seminar/reading of Euclid's <i>Elements</i> ; spiral algebra review; SAT preparation; problem-solving strategies	Algebra II Function notation; linear equations and inequalities; systems of linear equations and inequalities; matrices; exponential and logarithmic functions; rational and irrational functions; quadratic functions and complex numbers; higher degree functions; data analysis; standard deviation; trigonometric functions and triangle problems; SAT preparation; problem-solving strategies	Pre-Calculus/Trigonometry Polynomial and rational functions; exponential and logarithmic functions; trigonometric functions, analytic trigonometry and additional topics in trigonometry; systems of equations and inequalities; conic sections and analytic geometry; sequences, induction, series and sequences; binomial series; introduction to calculus; SAT preparation; problem-solving strategies	AP Calculus Four ways to represent a function; tangent and velocity problems; limits and limit laws; linear approximations, derivatives of polynomials and exponential functions; rates of change in natural and social sciences; derivatives of trig functions, the chain rule, derivatives of logarithmic functions, linear approximations and differentials; derivatives and the shapes of curves; Newton's method; anti-derivatives; the definite integral; The Fundamental Theorem of Calculus; integration by parts; modeling with differential equations; AP test preparation

TELLURIDE MOUNTAIN SCHOOL

Scope and Sequence

Science

Upper School

Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
Conceptual Physics Mechanics: linear, projectile and circular motion; Newton's laws; momentum and energy; gravitation; Einstein's Theory of Relativity; properties of solids, liquids and gasses; wave motion; sound and light; electromagnetism; atomic and nuclear physics; CBL/CBR investigations	Biology Chemical basis of life, cell structure and function; cell growth and division; genetics and heredity; human genome; evolution and biodiversity; classification systems; dissection; human biology: anatomy, health and wellness; general and local ecology	Chemistry Matter and change; scientific measurement; atomic structure; the periodic table; bonding; chemical names and formulas; reactions; stoichiometry; states of matter; gas laws; reaction rates; acids and bases; thermochemistry; scientific problem solving skills: scientific method, dimensional analysis, word-problems; integration of technology and lab work using laptops and probeware.	Senior Elective Science: Options <i>may</i> include: <i>Earth Science</i> <i>AP Environmental Science</i> <i>Anatomy and Physiology</i> <i>AP Physics</i> <i>AP Chemistry</i> <i>Independent Research in Science</i>

***The Upper School science curriculum is taught as a mandatory three-year progression. Twelfth grade students have the option of taking an elective science or doing an individual research project.**

TELLURIDE MOUNTAIN SCHOOL
Scope and Sequence

Social Studies/History
Upper School

Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
<p>World History First civilizations to the modern trade routes coupled with the study of early world literature; ancient civilizations: Africa, Mesopotamia, Egypt, and the Near East; Rome and imperialism; rise of world religions; transitions to the modern world; Middle East, Asia and Latin America; comparative historical/literary papers; collaborative multi-media group presentations; multi-sourced research projects</p>	<p>World History The development of human civilizations to the modern period with an emphasis on European nations, coupled with the study of European Literature. European Renaissance; Reformation and Religious wars; Europe and exploration of the New World; the scientific revolution; expansion and colonialism; nation building; the modern world; comparative historical/literary papers; collaborative multi-media group presentations; multi-sourced research projects</p>	<p>American History An in-depth examination of the foundations of American government and the major figures in its inception; major battles with focus on the American Revolution and the Civil War; focus on social movements, economics, politics and culture; geography, location, movement, religious influence, place; cause and effect; pro-con issues; note-taking; formal research paper; map work; group and individual presentations.</p>	<p>Principles of Government The Constitution; party politics; powers of government; analyze advantages and disadvantages of the federal, confederate and unitary systems of government; economics; industry; population, growth and prosperity; federalism; analysis and comparison of the structure and function of local government, world government and personal responsibility; focus on economics, politics, culture, geography, location, movement, religious influence and place; cause and effect; pro-con issues; note-taking; formal and independent research paper; map work; group and individual presentations</p>

TELLURIDE MOUNTAIN SCHOOL
Scope and Sequence

Language Arts/English
Upper School

Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
<p>Foundations of Literature Read <i>Gilgamesh</i>, Legends of King Arthur, and texts by Homer, Shakespeare, and British authors; analyze language and style in literature; comparative literature; vocabulary building; advanced grammar usage; short stories; poetry; analytic writing: stylistic awareness, development of voice and purpose, in-text citations and works cited; gathering and synthesizing information from multiple sources; using techniques of active reading; class note-taking; test-taking.</p>	<p>Modern World Literature Read texts such as <i>Romeo and Juliet</i>, <i>Tale of Two Cities</i>, <i>Love in the Time of Cholera</i>, <i>Things Fall Apart</i>; analyze language and style in literature; comparative literature; vocabulary building with an emphasis on classical roots; advanced grammar usage; analytic writing: writing prompts, timed essays, test preparation, stylistic awareness; poetry: understanding of metrical feet and lines, blank verse, sonnets, explication; documentation; paraphrasing; gathering and synthesizing information from multiple sources.</p>	<p>American Literature Read texts by Flannery O'Connor, Faulkner, Hemingway, Fitzgerald, Emerson, Thoreau, Hurston, Whitman and Frost; analyze language and style in literature; comparative literature; vocabulary building with an emphasis on SAT prep; advanced grammar usage; analytic papers: peer reviews and metacritical writing provide opportunities for discussions about critical analysis and persuasive writing; paraphrasing; gathering and synthesizing information from multiple sources</p>	<p>Electives: Native American Literature Read texts by: Momaday, Erdrich, Welch and Silko Literature in the Natural World Read texts by Cather, Austin, Muir, Snyder and McPhee Skills for both include: analyzing language and style in literature; comparative literature; vocabulary building with an emphasis on SAT prep; advanced critical and creative prose writing; applying principles of unguided peer review and metacritical self-review for both content and style</p>

TELLURIDE MOUNTAIN SCHOOL
Scope and Sequence

Visual Art
Upper School

Ninth/Tenth Grade Visual Art	Eleventh/Twelfth Grade Visual Art
Creative problem solving is focus of project development; technical/mechanical drawing skills solidified; extensive life drawing lessons; basic form and relationship; still life, landscape, figure drawing; expressive painting skill development and community mural project; ceramic technique with creative problem solving focus; student centered project critique and portfolio review; independent art history study and presentation; understanding and usage of various intrinsic media qualities; focus on process over product	Technical/mechanical drawing skill sets mastered and utilized in expressive, large-scale drawings; printmaking processes as drawing based commercial art; advanced color theory and oil painting media skill sets; advanced wheel throwing; sculpture as creative problem solving; mentorship opportunities; independent study of new media; art history research and presentation; extensive peer and professional critique process; portfolio development and review; exploration of art-based schools and careers.

TELLURIDE MOUNTAIN SCHOOL
Scope and Sequence

Music
Upper School

Ninth/Tenth Grade	Eleventh/Twelfth Grade
<p>Incorporating all previous skills, Upper School students are encouraged to embark upon long-range projects, which utilize their skills. An understanding of the cultural and historical significance for the music is fostered.</p> <p>Performance becomes a vehicle for developing self-expression and self-esteem. Musical problem solving provides opportunity for additional growth and inquiry.</p> <p>Increased interface with music technology promotes technical awareness critical to modern music production. Focus upon individual technical skills is the result of understanding the broader goals of group.</p>	<p>Students listen to, play and write music that links them to contemporary society and helps them answer deeper “big picture” questions. Study of the cultural and historical significance of music is emphasized, as is performance to foster true engagement. Artistic process of Inspiration, Imitation, and Limitation leading to Realization. Impact is utilized on both <i>personal</i> and <i>transpersonal</i> levels.</p> <p>Students are encouraged to integrate and develop into artists with deep feeling and perspective. Performance as a vehicle of sharing, expression and giving is required.</p>

TELLURIDE MOUNTAIN SCHOOL
Scope and Sequence

Spanish
Upper School

Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
<p>Language acquisition evolves with an increased vocabulary and complex sentence structures. Descriptions of places, chores and errands, getting around a new town or city through asking directions, learning to give directions; essays increase in complexity and length; formal and informal commands compared and learned; present progressive, simple past and preterit tenses; indirect object pronouns; Spanish for travel is discussed.</p>	<p>Language acquisition continues with more focus on listening and speaking in Spanish. Negative expressions, demonstrative adjectives, and double object pronouns; imperfect verb tense; imperfect vs. preterit; describing memories, describing future actions, and talking about the news; Indigenous people of Latin America and issues concerning Latin America expand cultural awareness.</p>	<p>Language acquisition continues with more focus on listening and speaking in Spanish. Read and discuss stories in Spanish; expression of feelings in the subjunctive, future and conditional tenses; expressing oneself, saying what you used to enjoy, expressing interest, expressing displeasure, and invitations; Latin American authors and views are explored.</p>	<p>Language acquisition continues with more focus on listening and speaking in Spanish. Reading and listening to current events; the history of Spain and Spanish culture; indefinite expressions, more uses of the subjunctive, and more than one verb tense in a sentence or thought process</p>

TELLURIDE MOUNTAIN SCHOOL

Scope and Sequence

Updated September 2007

Experiential Trips

All	First/Second Grade	Third/Fourth Grade	Fifth/Sixth Grade	Seventh/Eighth Grade	High School
<p>Experiential education enriches the curriculum by taking learning outside of the school. Experiential education broadly includes outdoor education, service learning, and experiential learning trips. The focus of the experiential curriculum includes environmental education, adventure education, outdoor skills, wilderness therapy and some aspects of outdoors recreation. Each experiential learning trip is designed to be developmentally appropriate, provide specific curricular relevance, and include a service learning component. General goals of the experiential program are to develop self-confidence, self-awareness, teamwork, social skills, positive attitudes, and motivation.</p>	<p>A two to three day regional trip that introduces students to a hands-on exploration of Southwest culture. Students study the music, dress, ceremony, food, and shelter of indigenous people of different time periods at regional cultural sites and educational centers. Students learn basic outdoor skills like food prep and tent proficiency. Foci include making real world connections to each other and our regional neighbors, and adapting to our environment, habitats and communities.</p>	<p>A three to four day trip that is based on subject areas such as geography and energy generation. Also students are introduced to a service learning component where they will help with a local clean up event or similar service opportunities. Focus includes living with nature, living in other places, depending on others, and listening to our environment.</p>	<p>A five to six day extended excursion in the regional Southwest. Trips center on enriching students' relationship with their native environment and local cultures. Students also engage in a multi-day service component. Trips focus on the development of an awareness of the cycles of matter, how things are reused, protecting our land, water use and changing weather.</p>	<p>A weeklong trip that has travel possibilities outside of the Southwest region. Students engage in a scientific focused trip detailing issues of habitat, environmental issues, ecological footprints, plants, views on environmental issues, and biodiversity. Outdoor skills include <i>leave no trace</i> camping, site selection, tent set-up, and low impact principles.</p>	<p>A two to three week trip that often travels outside the continental United States. Issues include global studies, resource use, ecosystems, cosmologies, human ecology, caring for the land and stewardship. High school often engages in language opportunities. A focus on team building is incorporated into the high school's activities as they participate in each project; communication and mediation skills are also developed.</p>