**Advanced Science**

* + Atoms
  + Elements
  + Periodic Table
  + Ions
  + Isotopes
  + Radioactivity
  + Mixtures and Compounds
  + Bonds
  + Balancing Equations
  + Solutions

**Earth Science**

**Fall Semester Topics:**

* **Plate Tectonics**
  + Structure of the Earth
  + Convergent, Divergent & Transform Plate Boundaries
  + “Continental Drift”
* **Earthquakes**
  + Primary, Secondary and surface waves
  + Seismogram
  + Richter and Mercalli Scales
  + Locating the Epicenter
  + Hazards
* **Volcanoes**
  + Structure
  + Case studies
  + Hazards
* **Minerals**

**Spring Semester Topics:**

* **High School Proficiency Review**
  + Geologic Time
  + Atmosphere
  + Star Overview
  + Gravity
  + Light
  + Atomic Theory
  + Chemistry Basics
  + Cells
  + Genetics
  + Population Dynamics
  + Evolution & Natural Selection
  + Electricity & Magnetism
* **Rocks**
  + Rock Cycle
* **Astronomy**
  + Sun
  + Solar System
  + Stars
  + Galaxies
  + The Universe

**Physical Science**

* **Force and Motion** 
  + Inertia
  + Momentum
  + Roller Coaster Physics
  + Potential & Kinetic Energy
  + Speed Problems
  + Unit Conversions
* **Simple Machines** 
  + Mechanical Advantage
  + Pulley, Lever, Inclined Plane, Wedge, Wheel & Axel, Screw
* **Electricity & Magnetism** 
  + Static Electricity
  + Magnets
  + Alternating & Direct Current
  + Circuits
  + Circuit Diagrams
  + Wiring Household Objects
  + Electric Motors
  + Hazards
* **Artificial Intelligence**

**Spring Semester Topics:**

* **High School Proficiency Review**
  + Geologic Time
  + Atmosphere
  + Star Overview
  + Gravity
  + Light
  + Atomic Theory
  + Chemistry Basics
  + Cells
  + Genetics
  + Population Dynamics
  + Evolution & Natural Selection
  + Electricity & Magnetism

**Chemistry**

* + Atoms
  + Elements
  + Periodic Table
  + Mixtures and Compounds
  + Bonds
  + Balancing Equations

**Natural Science**

**Fall Semester Topics:**

* **The Hydrosphere** 
  + The Water Cycle
  + Water Conservation
  + The Truckee River Watershed
  + Water Pollution
  + Challenges for the Future
* **The Atmosphere** 
  + Composition
  + Wind Patterns
  + The Greenhouse Effect
  + Air Pollution
* **Weather and Climate** 
  + Patterns
  + Hazards
  + Climate Change
  + Case studies
* **Artificial Intelligence**

**Fall Semester Topics:**

* **The Hydrosphere** 
  + The Water Cycle
  + Water Conservation
  + The Truckee River Watershed
  + Water Pollution
  + Challenges for the Future
* **The Atmosphere** 
  + Composition
  + Wind Patterns
  + The Greenhouse Effect
  + Air Pollution
* **Weather and Climate** 
  + Patterns
  + Hazards
  + Climate Change
  + Case studies
* **Artificial Intelligence**

**Spring Semester Topics:**

* **Cells** 
  + Structure and Functions
  + Cell Division
  + Reproduction
  + Respiration
  + Photosynthesis
* **Genetics**
  + DNA
  + Mendelian Genetics
* **Linnaean Taxonomy**
* **Evolution**
  + Natural and Artificial Selection
* **Population Ecology**
  + Limiting Factors
  + Biogeochemical Cycles

**Health**

* Health and Wellness
* Mental Health
* Healthy Relationships
* Violence and Abuse
* Self-Defense
* Drug Use, Misuse & Abuse
* Cancer
* Cardiovascular Disease
* Allergies
* Noninfectious Diseases
* Infectious Diseases
* Sexually Transmitted Diseases & AIDS
* Human Reproduction
* Nutrition
* Fitness & Exercise
* Weight Management & Body Image
* Stress