

Course Description Grade	Anatomy & Physiology 10 th – 12 th grades
Philosophy Statement:	This course is designed to enable students to discover the absolute truths of God's creation through the study of scientific knowledge in order to decipher the reflection of the Creator in the world around them
Course Description:	Essential principles of human anatomy and physiology are presented. Students will develop an appreciation for God's greatest creation the human body.
Textbooks:	Hole's Essentials of Human Anatomy & Physiology 12th Edition Laboratory Manual for Human Anatomy & Physiology 1st Edition McGraw-Hill Education Copyright 2015
Materials:	Textbook Study Guide Lab Manual Laboratory supplies & Equipment Microscopes & Slides
Time Allotment:	54 minutes per day, 3 days a week and 48 minutes per day, 2 days a week
Course Content:	Levels of Organization <ul style="list-style-type: none"> - Intro to Human Anatomy and Physiology - Chemical Basis of Life - Cells - Cellular Metabolism - Tissues Support and Movement <ul style="list-style-type: none"> - Integumentary System - Skeletal System - Muscular System Integration and Coordination <ul style="list-style-type: none"> - Nervous System - The Senses - Endocrine System Transport <ul style="list-style-type: none"> - Blood - Cardiovascular System - Lymphatic System and Immunity Absorption and Excretion <ul style="list-style-type: none"> - Digestion & Nutrition - Respiratory System - Urinary System - Water, Electrolyte, and Acid-Base Balance The Human Life Cycle <ul style="list-style-type: none"> - Reproductive Systems - Pregnancy, Growth, Development, and Genetics
Areas to be evaluated:	Daily Assignments Bell Ringers Labs/Dissections Quizzes Exams Class participation Science Articles
Additional activities:	Cadaver field trip

Course Description Grade	Biology 10 th – 12 th grades
Philosophy Statement:	This course is designed to enable students to discover the absolute truths of God's creation through the study of scientific knowledge in order to decipher the reflection of the Creator in the world around them
Course Description:	This is a general introductory biology course for the students. Students will be able to relate Biblical principles to what they learn in Biology and develop an appreciation for God's creation.
Textbooks:	Biology BJU Press 2005
Materials:	Textbook Lab Exercises Book Laboratory supplies & Equipment Specimens
Time Allotment:	54 minutes per day, 3 days a week and 48 minutes per day, 2 days a week
Course Content:	<p>The Science of Life and the God of Life</p> <ul style="list-style-type: none"> - God & Science, Scientific Method, & Biology and the Study of Life <p>The Chemistry of Life</p> <ul style="list-style-type: none"> - Basic & Organic Chemistry <p>Introduction of Cells</p> <ul style="list-style-type: none"> - The Structure of Cells and their Environment <p>Cellular Processes</p> <ul style="list-style-type: none"> - Cellular Energy, Metabolism, & Protein Synthesis <p>Genetics</p> <ul style="list-style-type: none"> - Genes, Chromosomes, and Cell Division, & Basic Genetics <p>Advanced Genetics</p> <ul style="list-style-type: none"> - Chromosome and Gene Changes & Population Genetics <p>Biotechnology</p> <ul style="list-style-type: none"> - Dominion Mandate, Biotechnology, & Practical uses of Biotech <p>The History of Life</p> <ul style="list-style-type: none"> - Biblical Worldview, Creationism, & Evolution <p>The Classification of Organisms</p> <ul style="list-style-type: none"> - Necessity of Classifying & Species and the Kind <p>Bacteria and Viruses</p> <ul style="list-style-type: none"> - Bacteria, Viruses, & Diseases and Disorders <p>The Kingdom Protista</p> <ul style="list-style-type: none"> - Protozoan, Algae, & Funguslike Protists <p>The Kingdom Fungi</p> <ul style="list-style-type: none"> - Fungi & Man - Characteristics & Classification of Fungi <p>The Plant Kingdom</p> <ul style="list-style-type: none"> - Plant Classification & Anatomy <p>The Life Processes of Plants</p> <ul style="list-style-type: none"> - Plant Physiology & Reproduction
Areas to be evaluated:	Participation Daily Assignments, Bell Ringers Labs, Quizzes/Tests
Additional activities:	Research Project Class Projects

Course Description Grade	Chemistry 10 th – 12 th Grades
Philosophy Statement:	This course is designed to enable students to discover the absolute truths of God's creation through the study of scientific knowledge in order to decipher the reflection of the Creator in the world around them
Course Description:	Students will observe how Chemistry is central to all the sciences by studying the composition, structure, and properties of matter and the changes it undergoes.
Textbooks:	Modern Chemistry Holt, Rinehart, and Winston, 2000
Materials:	Textbook Chemicals Laboratory supplies/equipment Calculator
Time Allotment:	54 minutes per day, 3 days a week and 48 minutes per day, 2 days a week
Course Content:	<p>Introduction to Chemistry and Matter</p> <ul style="list-style-type: none"> Matter & Change Measurements & Calculations <p>Organization of Matter</p> <ul style="list-style-type: none"> Atoms: The Building Blocks of Matter Arrangement of Electrons in Atoms The Periodic Law Chemical Bonding <p>Language of Chemistry</p> <ul style="list-style-type: none"> Chemical Formulas & Chemical Compounds Chemical Equations & Reactions Stoichiometry <p>Phases of Matter</p> <ul style="list-style-type: none"> Physical Characteristics of Gases Molecular Composition of Gases Liquids & Solids <p>Solutions & Their Behavior</p> <ul style="list-style-type: none"> Solutions Ions in Aqueous Solutions & Colligative Properties Acids & Bases Acid-Base Titration & pH <p>Chemical Reactions</p> <ul style="list-style-type: none"> Reaction Energy & Reaction Kinetics Chemical Equilibrium Oxidation-Reduction Reactions <p>Organic & Nuclear Chemistry</p> <ul style="list-style-type: none"> Carbon & Hydrocarbons Other Organic Compounds Nuclear Chemistry
Areas to be evaluated:	Participation Daily Assignments Bell Ringers, Labs Quizzes/Tests Science Articles
Additional activities:	Lab Demonstrations

Course Description Grade	Physical Science 9 th Grade
Philosophy Statement:	This course is designed to enable students to discover the absolute truths of God's creation through the study of scientific knowledge in order to decipher the reflection of the Creator in the world around them
Course Description:	The students will study the basic aspects of Science: Biblical Philosophy of Science, Matter, Chemistry, and Physics.
Textbooks:	Physical Science for Christian Schools textbook and Lab Manual 5th Edition BJU Press Copyright 2014
Materials:	Textbook Lab book Lab materials Calculator
Time Allotment:	54 minutes per day, 3 days a week and 48 minutes per day, 2 days a week
Course Content:	<p>Foundations</p> <ul style="list-style-type: none"> - Modeling God's World - Matter - Measurement <p>Mechanics</p> <ul style="list-style-type: none"> - Kinematics: How Things Move - Dynamics: Why Things Move - Energy - Work and Simple Machines - Fluid Mechanics - Thermodynamics <p>Electromagnetism</p> <ul style="list-style-type: none"> - Electricity - Magnetism - Periodic Motion and Waves - Sound - Electromagnetic Energy - Light and Optics <p>The Structure of Matter</p> <ul style="list-style-type: none"> - The Atom - Elements and the Periodic Table <p>Introduction to Chemistry</p> <ul style="list-style-type: none"> - Bonding and Compounds - Chemical Reactions - Mixtures and Solutions - Acids, Bases, and Salts
Areas to be evaluated:	Bell ringers Homework Participation Projects Lab work Quizzes & Tests Science Articles
Additional activities:	Lab Experiments Lab write ups Element Research Project

Course Description Grade	Physics 11 th -12 th Grade
Philosophy Statement:	This course is designed to enable students to discover the absolute truths of God's creation through the study of scientific knowledge in order to decipher the reflection of the Creator in the world around them
Course Description:	The students will study the basic aspects of physics while learning the principles and foundational laws of God's creation.
Textbooks:	Physics for Christian Schools textbook and Laboratory Manual - 2nd Edition BJU Press Copyright 2004
Materials:	Textbook Lab book Lab materials Calculator
Time Allotment:	54 minutes per day, 3 days a week and 48 minutes per day, 2 days a week
Course Content:	<p>A Framework</p> <ul style="list-style-type: none"> - Physics a Biblical Framework - Measurement <p>Classical Mechanics</p> <ul style="list-style-type: none"> - Motion in One Dimension - Vectors and Scalars - Motion in a Plane - Dynamics - Circular Motion - Applying Newton's Laws - Work and Energy - Conservation of Energy - Momentum - Periodic Motion <p>Thermodynamics and Matter</p> <ul style="list-style-type: none"> - Properties of Matter - Expansion and Temperature - Thermal Energy and Heat - Thermodynamic Laws - Fluid Mechanics <p>Electromagnetics</p> <ul style="list-style-type: none"> - Electric Charge - Electric Fields - Electrodynamics - Magnetism - Electromagnetism <p>Geometric Optics and Light</p> <ul style="list-style-type: none"> - Light and Reflection - Refraction - Wave Optics - Using Light <p>Modern Physics</p> <ul style="list-style-type: none"> - Relativity - Quantum Physics - Nuclear Physics
Areas to be evaluated:	Bell ringers Homework Participation

	Projects Lab work Quizzes & Tests Science Articles
<i>Additional activities:</i>	Lab Experiments Lab write ups