Course Syllabus

Estimated Completion Time: 2 segments / 32-36 weeks.

Major Topics and Concepts:

Segment I:

Module 01: Beginning with Science
- 01.00 Beginning with Science Checklist
- 01.01 Welcome to Earth Space Science
- 01.02 Scientific Investigation
- 01.03 Theories and Laws
- 01.04 Measurement
- 01.04 Measurement (Honors)
- 01.05 Atomic Structure and Forces
- 01.06 Matter and Energy
- 01.07 Beginning with Science Discussion-Based Assessment
- 01.08 Beginning with Science Module Exam

Module 02: Climate and Meteorology
- 02.00 Climate and Meteorology Pretest
- 02.01 Water Cycle
- 02.02 The Atmosphere
- 02.03 Weather vs. Climate
- 02.04 Meteorology
- 02.05 Severe Weather
- 02.05 Severe Weather (Honors)
- 02.06 Global Climate Change
- 02.07 Climate and Meteorology Discussion-Based Assessment
- 02.08 Climate and Meteorology Module Exam

Module 03: Fresh Water
- 03.00 Fresh Water Pretest
- 03.01 Surface Water
- 03.02 Groundwater
- 03.03 Water Quality
- 03.04 Water Conservation
- 03.05 Fresh Water Discussion-Based Assessment
- 03.06 Fresh Water Module Exam

Module 04: Our Universe
- 04.00 Our Universe Pretest
- 04.01 Light and the Universe
- 04.02 Exploring the Universe
- 04.02 Exploring the Universe (Honors)
- 04.03 Life Cycle of a Star
- 04.03B Stars and Elements
- 04.04 Origin and Expansion of the Universe
- 04.04B Origin of the Moon
• 04.05 Our Universe Discussion-Based Assessment
• 04.06 Our Universe Module Exam

**Module 05: Rocks and Minerals**
• 05.00 Rocks and Minerals Pretest
• 05.01 Minerals
• 05.02 Rocks and the Rock Cycle
• 05.03 Rocks and Minerals as Resources
• 05.03 Rocks and Minerals as Resources (Honors)
• 05.04 Soil and Soil Formation
• 05.05 Rocks and Minerals Discussion-Based Assessment
• 05.06 Rocks and Minerals Module Exam
• 05.07 Segment One Exam

**Segment II**

**Module 06: Geologic Time**
• 06.00 Geologic Time Pretest
• 06.01 Geologic Time Scale
• 06.02 Relative and Absolute Time
• 06.02 Relative and Absolute Time (Honors)
• 06.03 Origin and Evolution of Life
• 06.03B Coevolution of Earth Systems
• 06.04 Geologic Time Discussion-Based Assessment
• 06.05 Geologic Time Module Exam
• 06.06 Engineering Design I

**Module 07: Oceans**
• 07.00 Oceans Pretest
• 07.01 Characteristics of the Ocean
• 07.02 Ocean Circulation
• 07.03 Waves
• 07.04 Tides and Water Power
• 07.04 Tides and Water Power (Honors)
• 07.05 Ocean Interactions
• 07.06 Oceans Discussion-Based Assessment
• 07.07 Oceans Module Exam
• 07.08 Engineering Design II

**Module 08: Our Solar System**
• 08.00 Our Solar System Pretest
• 08.01 Formation of Our Solar System
• 08.02 Forces in Our Solar System
• 08.03 Physical Properties of Our Sun
• 08.04 Objects in Our Solar System
• 08.04 Objects in Our Solar System (Honors)
• 08.05 The Earth in Space
• 08.06 The Earth-Sun-Moon System
• 08.07 Our Solar System Discussion-Based Assessment
• 08.08 Our Solar System Module Exam
• 08.09 Engineering Design III
Module 09: The Geosphere

- 09.00 The Geosphere Pretest
- 09.01 Structure of the Earth
- 09.02 The Carbon Cycle
- 09.03 Mechanisms of Movement
- 09.04 Structural Geology
- 09.05 Geologic Events
- 09.05 Geologic Events (Honors)
- 09.06 The Geosphere Discussion-Based Assessment
- 09.07 The Geosphere Module Exam
- 09.08 Segment Two Exam
- 09.09 Engineering Design IV

Course Assessment and Participation Requirements:
To achieve success, students are expected to submit work in each course weekly. Students can learn at their own pace; however, “any pace” still means that students must make progress in the course every week. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers; the minimum requirement is monthly. When teachers, students, and parents work together, students are successful.