

SCI0300_202338_Staging_EMBR_TEM

SCI-300

2023 05/01/2023 to 04/30/2024 Modified 03/21/2023

Course Description

This science course will allow the student to discover scientific topics through interactive, hands-on, and engaging activities and lessons. The student will study various aspects of God's creation, with Christian values as a guide. The truths of creation and God's design will be interwoven throughout the course, allowing the student to learn sound scientific knowledge through a biblical worldview.

Rationale

This course offers a deeper study of science, allowing the student to observe and understand principles through the crucial perspective that everything is designed by our great Creator. The course enables the student to think clearly about scientific principles and to examine the way they work through a biblical lens—paving the way for not only the current study of science but also for future studies.

Course Learning Outcomes

- A. The student will identify and understand the importance of observation and the scientific method.
- B. The student will identify and understand different measurements.
- C. The student will identify and understand simple and compound machines.
- D. The student will identify and understand the five senses.
- E. The student will identify and understand matter.
- F. The student will identify and understand reflection, refraction, shadow.
- G. The student will identify and understand opaque, translucent, transparent.
- H. The student will identify and understand the seasons.
- I. The student will identify and understand the moon's phases.
- J. The student will identify and understand the oceans.
- K. Identify and understand water, plant, and animal life cycles.
- L. Identify and understand behavioral and physical adaptations.
- M. Identify and understand energy and its resources.
- N. Distinguish between living things and non-living things.
- O. Identify and understand herbivore, carnivore, and omnivore.
- P. Identify and understand an ecosystem.

Q. Identify and understand pollution and prevention methods for it.

R. Identify and understand the skeleton, the skin, and the brain.

S. Identify and understand the respiratory system.

Biblical Integration Outcomes

A. The student will understand that God has created a unique world where everything works together.

B. The student will understand that God does things in an orderly manner.

Course Resources

See Ember's [Systems Requirements](#) for computer specifications necessary to operate this curriculum.

- Note: Embedded YouTube videos may be utilized to supplement Ember's YouTube videos are the property of the respective content creator, licensed to YouTube for distribution and user access. As a non-profit educational institution, Ember is able to use YouTube video content under the YouTube Terms of Service. For additional information on copyright, please contact the [Jerry Falwell Library](#)

* Course Policies

Types of Assessments

To simplify and clearly identify which policies apply to which assessment, each assessment has been categorized into one of four categories: Lesson, Assignment, Quiz, or Test. Each applicable item on the course Modules page has been designated with an identifier chosen from among these categories. Thus, a Quiz on the American Revolution may be designated by the title, "1.2.W Quiz: The American Revolution."

- **Lesson:** *Any item on the Modules page designated as a "Lesson"*

These include instructional content and sometimes an assessment of that content. Typically, a Lesson will be the day-to-day work that a student completes.

- **Assignment:** *Any item on the Modules page designated as an "Assignment"*

Typical examples of Assignments include, but are not limited to, papers, book reports, projects, labs, and speeches. Assignments are usually something that the student should do his or her best work on the first time.

- **Quiz:** *Any item on the Modules page designated as a "Quiz"*

This usually takes the form of a traditional assessment where the student will answer questions to demonstrate knowledge of the subject. Quizzes cover a smaller amount of material than Tests.

- **Test:** *Any item on the Modules page designated as a "Test"*

This usually takes the form of a traditional assessment where the student will answer questions to demonstrate knowledge of the subject. Tests cover a larger amount of material than Quizzes.

Materials Selection Policy

Ember curates educational materials that are consistent with the school's philosophy; however, the fallen human condition depicted in literature (as in Scripture itself) is not always pleasant. Valuable works sometimes have objectionable or profane elements. Good books provide four (4) recognized values.

- They build godly attitudes and character traits.
- They deepen our social and cultural awareness.
- They strengthen our use of written language.
- They provide a lifelong source of enjoyment and relaxation.

In order to instill these values in students and fulfill the stated objectives of the school, all Ember students are expected to read and study good books on a regular basis. Recognizing that materials designed for one level may not be appropriate for another, three (3) levels of criteria are applied:

- Elementary materials must contain no objectionable material,
- Objectionable elements in sixth through eighth-grade materials must be limited and must serve a specific educational purpose, and
- Objectionable content may be included in high school materials but must be outweighed by positive literary, curricular, and/or Christian values.

The curriculum department has approved required educational materials for students.

Resubmission Policy

Students are expected to submit their best work on the first submission for every Lesson, Assignment, Quiz, and Test. However, resubmissions may be permitted in the following circumstances:

- **Lesson:** Students are automatically permitted two attempts on a lesson. Students may freely resubmit for their first two attempts without the need for teacher approval.

If a student feels that he or she deserves a resubmission on a Lesson, Assignment, Quiz, or Test due to a technical issue such as a computer malfunction, the student should message his or her teacher to make the request. With Ember, the teacher may be a physical school teacher or the student's parent/guardian. The teacher can give another attempt from his or her Canvas account. For more information on how to do this, please review the Ember orientation course.

Schedule

Module 1: Scientific Method

- Week 1: Scientific Method
- Week 2: Measurement
- Week 3: Simple and Compound Machines

Module 2: Observation and Matter

- Week 4: The Five Senses
- Week 5: Matter
- Week 6: Solid, Liquid, Gas

Module 3: Energy and Light

- Week 7: Heat Energy
- Week 8: Reflection, Refraction, Shadow
- Week 9: Opaque, Translucent, Transparent

Module 4: Solar System

- Week 10: Earth, Seasons, Gravity
- Week 11: Moon Phases
- Week 12: Oceans
- Week 13: Science Experiment

Module 5: Cycles

- Week 14: Living/Non-living Things
- Week 15: Water Cycle
- Week 16: Plant Life Cycle
- Week 17: Animal Life Cycle
- Week 18: Second Quarter Review

Module 6: Adaptations

- Week 19: Behavioral & Physical Adaptations
- Week 20: Herbivore, Carnivore, Omnivore
- Week 21: Migration
- Week 22: Review Week

Module 7: Ecosystems

- Week 23: Ecosystems
- Week 24: Aquatic Ecosystems
- Week 25: Terrestrial Ecosystem
- Week 26: Renewable and Non-Renewable Resources
- Week 27: Third Quarter Review

Module 8: Safety Week and Weird Science

- Week 28: Safety
- Week 29: Unusual Animals

Module 9: Health

- Week 30: Body Systems
- Week 31: Body Systems Continued
- Week 32: The Nervous System Week
- Week 33: Review Week

Module 10: Recycling and Erosion

- Week 34: Recycling
 - Week 35: Effects of Disasters
 - Week 36: Quarter Four Review
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