

SCI0200_202338_Staging_EMBR_TEM

SCI-200

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

Course Description

This science course allows students to explore the scientific method while participating in experiments. Students will engage in various science concepts such as the scientific method, magnets, states of matter, the water cycle, weather, adaptations, habitats, life cycles, measurement, and health. The student will participate in a variety of fun hands-on activities. This course will emphasize God's creation and design of the world, which will help students apply a biblical worldview as they continue to learn about science.

Rationale

Science is the study of the earth around us. It is based on God's Word, and this study begins at Creation. It is important for all to understand the foundation of how the world was created and how it operates. Science involves investigation, and all aspects of this will be investigated.

Course Learning Outcomes

- A. The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations.
- B. The student will investigate and understand that natural and artificial magnets have certain characteristics and attract specific types of metals.
- C. The student will investigate and understand basic properties of solids, liquids, and gases.
- D. The student will investigate and understand that plants and animals undergo a series of orderly changes as they mature and grow.
- E. The student will investigate and understand that living things are part of a system.
- F. The student will investigate and understand basic types, changes, and patterns of weather.
- G. The student will investigate and understand that weather and seasonal changes affect plants, animals, and their surroundings.
- H. The student will investigate and understand that plants produce oxygen and food, are a source of useful products, and provide benefits in nature.
- I. The student will identify the major body systems, healthy food and beverage choices, emotions, and social skills, and explain how each is connected to personal health.
- J. The student will identify personal health decisions and health habits that influence health and wellness throughout life.
- K. The student will describe the influences and factors that impact health and wellness.

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 & Magnets

- Week 1: Scientific Method
- Week 2: Scientific Method Experiments – Aluminum Foil Boat
- Week 3: Scientific Method Experiments – Oobleck
- Week 4: Magnets

Module 2: States of Matter & The Water Cycle

- Week 5: Solids, Liquids, and Gas
- Week 6: The Water Cycle

Module 3: Weather Part 1

- Week 7: Precipitation and The Water Cycle
- Week 8: Recording Weather
- Week 9: First Quarter Review

Module 4: Weather Part 2

- Week 10: Weather Patterns and Weather Graphs
- Week 11: Types of Weather
- Week 12: Weathering and Erosion

Module 5: Habitats

- Week 13: Weather, Seasons, and Plants
- Week 14: Weather, Seasons, and Animals
- Week 15: Forest, Stream, and Marine Habitats
- Week 16: Maintaining Healthy Habitats

Module 6: Mass & Volume Measurement

- Week 17: Mass and Volume
- Week 18: Second Quarter Review

Module 7: Life Cycles

- Week 19: Living and Non-Living Things
- Week 20: Frog and Butterfly Life Cycles
- Week 21: White-Tailed Deer Life Cycle
- Week 22: Plant Life Cycles

Module 8: Plants

- Week 23: Products of Plants
- Week 24: Plants, Water, and Animal Homes
- Week 25: Plants are Important
- Week 26: Eating Plants and Healthy Foods
- Week 27: Third Quarter Review

Module 9: The Human Body Part 1

- Week 28: Exercising Our Bodies
- Week 29: Skin and Bones
- Week 30: Muscles
- Week 31: Lungs

Module 10: The Human Body Part 2

- Week 32: Eyes
- Week 33: Heart
- Week 34: Brain
- Week 35: Mouth
- Week 36: Fourth Quarter Review