**COURSE SYLLABUS**

**SCI0500**

**5th Grade Science**

**COURSE DESCRIPTION**

The Liberty University Online Academy’s 5th Grade science course provides students with an opportunity to discover scientific topics through interactive and engaging activities and lessons. Students will dive into God’s world through the units that will employ imperative Christian values. The truths of Creation and God’s design will be interwoven continuously throughout the entire course allowing students to gain solid science knowledge with a Biblical world view. Students will explore a wide range of topics which include: Creation, Cells, Body systems, Sound, Earth, Scientific Methods, Plants, Color and Light, Chemistry, and the Ocean.

**PREREQUISITES**

4th Grade Science

**MATERIALS LIST**

Microsoft Office or compatible software, printer, scanner, camera, notebook

**Module 2**

Yellow food coloring, salt, vegetable oil, sugar, honey, steak sauce, index cards, tape, plastic bottle, straw, elastic band, scissors, 2 balloons, playdough

**Module 3**

Roll of wrapping paper or long roll of paper, colored markers

**Module 4**

Balloon, coffee can, large rubber band, sugar, metal bowl, metal spoons

**Module 7**

Tootsie roll pop or blow pop
Module 8
Opaque casserole dish, small stone, pitcher, glass cup, spoon, 2 mirrors, toilet paper tube, paper towel tube, scissors, table, flashlight

Module 9
10 glasses or see through plastic cups, spoon, sharpie markers or labels

**Measurable Learning Outcomes**

**Most importantly, students will be able to develop an understanding of God’s design in creation and be able to link everything they learn back to what the Bible says.**

Virginia State Standards

As a result of science instruction, students will be able to achieve the following objectives:

1. Develop and use an experimental design in scientific inquiry.
2. Use the language of science to communicate understanding.
3. Investigate phenomena using technology.
4. Apply scientific concepts, skills, and processes to everyday experiences.
5. Experience the richness and excitement of scientific discovery of the natural world through the collaborative quest for knowledge and understanding.
6. Make informed decisions regarding contemporary issues, taking into account the following:
   - public policy and legislation;
   - economic costs/benefits;
   - validation from scientific data and the use of scientific reasoning and logic;
   - respect for living things;
   - personal responsibility; and
   - History of scientific discovery.
7. Develop scientific dispositions and habits of mind including:
   - curiosity;
   - demand for verification;
   - respect for logic and rational thinking;
   - consideration of premises and consequences;
   - respect for historical contributions;
   - attention to accuracy and precision; and
   - patience and persistence.
8. Develop an understanding of the interrelationship of science with technology, engineering and mathematics.
9. Explore science-related careers and interests
**COURSE REQUIREMENTS AND ASSIGNMENTS**

A. Individual lesson assessments (1 per lesson)
B. Quizzes – not a set number of quizzes per unit – never more than 2
C. Education City lessons
D. Experiments
E. 1 Test per unit

**COURSE GRADING AND POLICIES**

A. Grading Weights

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Lesson Assignments</td>
<td>25%</td>
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<tr>
<td>Quizzes and Written Assignments</td>
<td>35%</td>
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<td>Tests</td>
<td>40%</td>
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B. Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93 – 100</td>
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<td>B</td>
<td>85 – 92</td>
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<td>C</td>
<td>77 – 84</td>
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<td>D</td>
<td>70 – 76</td>
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<td>F</td>
<td>Below 70</td>
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Other Policies

Academic Misconduct

See pages 27-30 of your Student Handbook

Repeating Assignments

Students may have two attempts on lessons. Quizzes and tests cannot be repeated to gain a higher grade. Quizzes and tests may be reset for technical issues, but a new set of questions will be generated.
**Scope and Sequence**

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<tbody>
<tr>
<td>I.</td>
<td>Creation</td>
</tr>
<tr>
<td>II.</td>
<td>Plant and Animal Cells</td>
</tr>
<tr>
<td>III.</td>
<td>Body Systems Part I</td>
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<td>IV.</td>
<td>Body Systems Part II</td>
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<td>V.</td>
<td>Physics of Sound</td>
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<td>VI.</td>
<td>The Earth</td>
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<td>VII.</td>
<td>Scientific Method and Plants</td>
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<td>VIII.</td>
<td>Color and Light</td>
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<td>IX.</td>
<td>Chemistry</td>
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<td>X.</td>
<td>Ocean</td>
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