

Elementary Science

First Grade

“. . . all things denote there is a God; yea, even the earth, and all things that are upon the face of it, yea, and its motion, yea, and also all the planets which move in their regular form do witness that there is a Supreme Creator.”

~Alma 30:44

Course Description

In this course, students will learn about:

- Zoology – a review of invertebrates and vertebrates with an emphasis on animal habitats and divine design of animals; an introduction to stewardship over animals
- Physics – simple machines (levers, inclined planes, wedges, gears, and pulleys)
- Oceanography – a look at the individuality the plants, animals, and landforms in the ocean and the work of Matthew Maury.
- Geology – an introduction to the earth’s layers and types of rocks, and a study of the uses of mountains, earthquakes, erosion, and types of soil
- Anatomy – a study of the five senses
- Meteorology – an introduction to atmosphere, weather, the water cycle, and clouds

Course Objectives

Students will demonstrate their understanding of the science curriculum through participating in class instruction and completing the following tasks:

- Students will describe the elements needed in a habitat for the animals who live there.
- Students will create a model of an animal habitat.
- Students will have the opportunity to demonstrate stewardship over an animal by taking one of the class pets home for a weekend to care for it.
- Students will recognize the categories of simple machines and will be able to name examples of each kind of simple machine.
- Students will compare and contrast fresh water and salt water habitats.
- Students will name several of the living things in the ocean.
- Students will recognize the contributions of Matthew Maury to the field of oceanography.
- Students will describe the layers of the earth.
- Students will distinguish between the three types of rocks found on the earth’s crust.
- Students will make models to demonstrate how mountains are formed.
- Students will describe how earthquakes occur and demonstrate safety practices to use during an earthquake.
- Students will describe different types of soil/earth matter and their uses.

- Students will share favorite uses for each of their five senses.
- Students will describe the water cycle.
- Students will recognize different types of clouds.
- Students will describe different types of weather.

Course Texts

The following titles are books used within lessons in the curriculum.

Title	Author	ISBN	Annotation
Discovering God's World	A Beka Book Science Series for First Grade		Parts of this text will be used in various lessons.

Course Assignments

The assignments consist of notebook pages, experiments or activities (referred to as “labs”), and memorizations.

Notebook Pages

Your child’s Notebook is not just an organized compilation of assignments; rather, it is a product of his/her creativity, insights, and progress. It is a permanent record of the researching, reasoning, relating, and recording that causes him/her to become an “active producer” rather than a “passive consumer.” The assignments in this course are designed to guide students on this journey.

Labs

The lab activities are hands-on explorations of the topic being studied which could be in the form of an experiment, an observation and explanation, or a partner activity.

Homework Projects

To enrich your child’s experience in Elementary Science, First Graders will have two homework projects during the year. Your child will create a “habitat diorama” and a rock collection. More information will be given to you when it is time to begin the projects.

Memorizations

In this course students will memorize and recite the following scriptures:

Zoology: “Behold, the Lord hath created the earth that it should be inhabited; and he hath created his children that they should possess it.” ~1 Nephi 17:36

Physics: “And they did make all manner of tools to till the earth, both to plow and to sow, to reap and to hoe, and also to thrash.” ~Ether 10:25

Oceanography: “And I, God, called the dry land Earth; and the gathering together of the waters, called I the Sea; and I, God, saw that all things which I had made were good.” ~ Moses 2:10

Geology: “And it came to pass that I did make tools of the ore which I did molten out of the rock.” ~ 1 Nephi 17:16

Anatomy/Physiology: “The hearing ear, and the seeing eye, the Lord hath made even both of them.” ~ Proverbs 20:12

Meteorology: “Then I will give you rain in due season, and the land shall yield her increase, and the trees of the field shall yield their fruit.” ~ Leviticus 26:4

Grading: Point Breakdown

Grading at the First Grade level is based upon participation as well as Notebook work, Labs, and memorizations. Students will also complete two homework projects during the year. Grades will be given as follows:

Participation	5 Points	(total of 31 lessons = 155 points)
Notebook Assignment / Lab	10 Points	(total of 31 assignments = 310 points)
Unit Memorizations	10 Points	(total of 6 scriptures = 60 points)
Homework Project	25 Points	(total of 2 projects = 50 points)

(NOTE: First Grade Science meets on Mondays. There are holidays on four Mondays during the school year; we will meet 31 times for Science rather than 35.)

TOTAL 575 Points Possible

If your child misses a science class, an alternative assignment will be provided, and your child will have one week to complete it.

Grading Rubric:

Participation	5 Actively participates, asks questions, is focused.	1 Minimal focus and attentiveness to lesson
Notebook	10 Work is done neatly, carefully, and shows thought.	1 Work is done sloppily and lacks neatness or thought.
Lab	Actively participates, asks questions, is focused.	Minimal focus and attentiveness to lesson
Memorizations	Scripture is recited with confidence and with no help.	Scripture is not memorized at all.

Homework Projects: A scoring guide specific to each project will be sent home with the directions to each project.

Grading: Scale

EP = Excellent (100-90%)

CP = Consistent Progress (89-80%)

SP = Slow Progress (79-70%)

LP = Limited Progress (69-60%)

NP = Not Passing (59-0%)

* = With Special Accommodation

Self-Government Grade

O = Outstanding

- Demonstrates exceptional effort and work ethic; and
- Makes significant or frequent contributions to the class; and
- Completes and submits all in-class and homework assignments on time, unless otherwise excused by the instructor; and
- Does not require more than one warning from faculty or administration to improve specifically identified misbehavior.

G = Good

- Demonstrates good effort and work ethic; and
- Makes occasional contributions to the class; and
- Completes and submits most in-class and homework assignments on time; and
- Generally does not require more than two (but occasionally more) warnings from faculty or administration to improve specifically identified misbehavior.

MS = Minimum Standard

- Demonstrates a minimal level of effort and work ethic; and
- Makes very few contributions to the class; and
- Submits most in-class and homework assignments, but not in a complete or timely way; and
- Requires multiple warnings from faculty or administration to improve specifically identified misbehavior.

BM = Below Minimum Standard

- Demonstrates an unacceptable level of effort and work ethic; or
- Does not contribute to the class; or
- Consistently neglects to submit in-class or homework assignments.

Strategies for Success

Each week a “Science News” newsletter is emailed to all parents who have an email address in the school email system. The newsletter includes information about what we are learning in class, assignments your child has, and enrichment opportunities to expand your child’s science learning experience. This information will help you ask your child specific questions about what he/she is learning in Science. To help your child be successful in Science, please take time to read the “Science News” each week.

Instructor Contact Information

Nancy Willis
801-319-5372
nwillis@ahsmaail.com

Instructor Bio

Mrs. Willis has over 25 years of experience teaching kindergarten through fourth grade children. She grew up in Provo where she attended Brigham Young University and graduated with a bachelor's in Elementary Education. After serving an LDS mission and teaching for three years in Utah she and her husband moved to Alaska where she lived for the next 24 years until moving back to Utah in August of 2008. She has taught Kindergarten for two years at American Heritage School and began teaching Elementary Science in the fall of 2010. In Alaska, Mrs. Willis taught for 20 years in public schools. While there, Mrs. Willis also completed a Masters degree in Educational Leadership and spent two years as an Elementary School principal. After retiring, she volunteered with the Alaska PTA, taught piano lessons, and home-schooled her youngest child. She and her husband have eight children and three grand children. In her spare time, Mrs. Willis enjoys spending time with her family, going for walks, playing games, reading, doing family history research, baking, and playing and listening to music, and traveling. During her years in the classroom, Mrs. Willis taught science curriculum to all of her classes as there were no science specialists in elementary public schools. Over the years she has helped her own children raise a variety of pets, including dogs, cats, guinea pigs, hamsters, gerbils, birds, fish, a rabbit, and snakes. She has a love of nature and a deep love and appreciation for its Creator. “I am grateful for the opportunity to share my love of learning and the wonders of God’s creations with the children in the K-4 science classes at American Heritage.”