Elementary Science
Third 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 – the life and contributions of Carolus Linnaeus; a focus on warm- and cold-blooded animals with an emphasis on insects, amphibians, reptiles, fish, and mammals
- Cytology – the life and contributions of Anton van Leeuwenhoek and Robert Hooke, cell theory, the charactersitics of animal and plant cells, cells as tiny machines, and cell reproduction
- Anatomy – an in depth look at body systems: skeletal, muscular, circulatory, nervous, digestive, and waste removal.
- Ornithology – the importance of birds, a specific look at feathers, flight, beaks, feet, eggs, and nests.

Course Objectives

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

- Students will recount the contributions Carolus Linnaeus made to our understanding of Zoology.
- Students will compare and contrast warm- and cold-blooded animals.
- Students will draw and label parts of an insect's body.
- Students will describe useful and harmful behaviors of insects.
- Students will recount the contributions Anton van Leeuwenhoek and Robert Hooke made to our understanding of cells.
- Students will diagram the parts of animal and plant cells.
- Students will describe the purposes of the parts of cells.
- Students will demonstrate an understanding of how to use a microscope.
- Students will compare and contrast the major body systems.
- Students will create a model that includes the major body systems.
- Students will describe the anatomy and physiology of each of the major body systems.
- Students will describe the characteristics of birds.
- Students will describe and demonstrate their understanding of feathers and how they help with flight.

- Students will compare and contrast different bird beaks and feet, describing the purposes for their shapes and sizes.
- Students will observe differences in bird nests.
- Students will describe the structure of a bird egg.

Course Texts

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

Title	Author	ISBN	Annotation
Exploring God's World	A Beka Book Science Series for Third 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"), memorizations, and quarterly homework projects.

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, Third Graders will have one homework projects during each quarter of the year. Your child will create a report on a favorite animal, a poster to tell about a scientist, a human body systems display, and a bird observation booklet.

Memorizations

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

Zoology: "And out of the ground I, the Lord God, formed every beast of the field, and every fowl of the air; and commanded that they should come unto Adam, to see what he would call them;" ~ Moses 3:19

Cytology: "And as all have not faith, seek ye diligently and teach one another words of wisdom; yea, seek ye out of the best books words of wisdom; seek learning, even by study and also by faith." ~ Doctrine and Covenants 88:118

Anatomy/Physiology: "And never have I showed myself unto man whom I have created, for never has man believed in me as thou hast. Seest thou that ye are created after mine own image? Yea, even all men were created in the beginning after mine own image." ~Ether 3:15

Onrithology: "But they that await upon the Lord shall renew their strength; they shall mount up with wings as eagles; they shall run, and not be weary; and they shall walk, and not faint." ~Isaiah 40: 31

Grading: Point Breakdown

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

Participation	5 Points	(total of 35 lessons = 175 points)
Notebook Assignment / Lab	10 Points	(total of 34 assignments = 340 points)
Unit Memorizations	10 Points	(total of 3 scriptures = 30 points)
Homework Project	25 Points	(total of 4 projects = 100 points)

TOTAL 645 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:

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Participation	Actively participates, asks questions, is focused.	Minimal focus and attentiveness to lesson
	10 1	
Notebook	Work is done neatly, carefully, and shows thought.	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

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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."