Wyoming Department of Education Required Virtual Education Course Syllabus

BIG HORN COUNTY SCHOOL DISTRICT #1

Program Name	WYCA	Content Area	Science
Course ID	CAEL76298	Grade Level	3
Course Name	Science 3 A	# of Credits	0.5
SCED Code	NoCourseSCED	Curriculum Type	Connections Academy

COURSE DESCRIPTION

Science provides a way for people to actively learn about the world around them. Throughout this course the student will continue to perform hands-on activities to explore organisms, investigate changes, and examine the solar system. The McGraw-Hill textbook, Science: A Closer Look, and the science kit are the primary resources for this course. The life science units describe and analyze components of the the living world. The Earth science unit describes Earth's features and the changes it undergoes. The student will also explore different careers in science and the scientific method.

In this course, the student will design an experiment to discover what plants need to survive, make a model of a cave, and delve into many more exciting experiments. The lessons in this course are designed to accommodate a variety of learning styles and to provide a variety of opportunities for the entire family to participate in the student's education. Some lessons, or groups of lessons, in each unit are activity-centered, which allows the student to engage the new concepts through exploration and discovery; others are more traditional, requiring the student to read, research, and reflect on the underlying theory.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK
3-PS2-1	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
3-PS2-2	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.
3-PS2-3	Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.
3-PS2-4	Define a simple design problem that can be solved by applying scientific ideas about magnets.
3-LS1-1	Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES
Unit 1: Force Causes Motion Through exploration, you will learn about the relationship between the mass of an object and the amount of force needed to move it. By investigation, you will be able to describe the effects of balanced and unbalanced forces on an object. Using what you learn about force and motion, you will make predictions about the future movement of an object based on patterns observed and measured.	3-PS2-1, 3-PS2-2	• Demonstrate different ways that objects move. • Explain the relationship between force and motion • Based on investigation, describe the effects of balanced and unbalanced forces on an object • Predict future motion by identifying patterns through observation and measurement.
Unit 2: Magnets In this unit you will learn about the properties of magnets, such as what causes them to attract or repel each other. You will find out about magnetic force and magnetic fields, including how the magnetic fields differ around different types of magnets. By creating a compass, you will discover how magnetic force can affect an object without directly touching it. You will also define and solve an engineering design problem that uses your scientific knowledge about magnets.	3-PS2-3, 3-PS2-4	• Identify the properties of a magnet and identify objects that are magnetic. • Describe magnetic force and explain how it can cause motion. • Demonstrate how magnetic force may affect an object the magnet is not in contact with. • Define a simple design problem that can be solved by applying scientific ideas about magnets.

Unit 3: Electricity In this unit you will learn about static electricity, including what causes it and how charges attract and repel. You will also learn about lightning, which is a form of static electricity. Through exploration, you will find out more about the types of materials that are electrical conductors and the types that are electrical insulators. You will also learn about circuit electricity, including how to create simple closed and open circuits. By planning and conducting an investigation, you will learn about electromagnets, and what makes them stronger or weaker.	3-PS2-3	• Create graphic models that demonstrate why static electricity can cause objects to cling to each other. • Identify conductors and insulators of electricity. • Create a simple circuit and demonstrate the difference between a closed and open circuit. • Create an electromagnet and describe how to make it stronger or weaker.
Unit 4: Life Cycles In this unit, your student will create models in order to compare the life cycles of different plants and animals. Your student will also do research to learn more about the life cycles of different animals and make comparisons.	3-LS1-1	• Describe the life cycles of plants and compare to the life cycle of animals, including insects and amphibians. • Compare complete and incomplete metamorphosis. • Compare the life cycle of amphibians, reptiles, and mammals.