

Wyoming Department of Education Required Virtual Education Course Syllabus

2201001 - Washakie County School District No. 1

Program Name	Washakie #1 Online	Content Area	SC
Course ID	WOL-SCKF1	Grade Level	K
Course Name	WOL-Science K	# of Credits	1.0
SCED Code	NA	Curriculum Type	K-12 Fuel Education

COURSE DESCRIPTION

SCIENCE K

Kindergarten students begin to develop observation skills as they learn about the five senses, Earth's composition, and the basic needs of plants and animals. Students will also explore topics such as measurement (size, height, length, weight, capacity, and temperature), matter (solid, liquid, and gas), the seasonal cycle, our Earth (geography, taking care of Earth), motion (pushes and pulls, magnets), and astronomy (Earth, Sun, Moon, and stars; exploring space; astronauts Neil Armstrong and Sally Ride).

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
K-PS2-1	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.
K-PS2-2	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.
K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.
K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.
K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.
K-ESS2-1	Use and share observations of local weather conditions to describe patterns over time.
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
K-ESS3-1	Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
K-ESS3-3	Communicate solutions that will manage the impact of humans on the land, water, air, and/or other living things in the local environment.
K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
K-2-ETS1-2	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

SCOPE AND SEQUENCE

LESSON TITLE	STANDARD	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Observing My World	K-2-ETS1-2	Unit 1: Observing My World Summary "Scientists make careful observations of the world around them, but you don't have to be a scientist to explore your surroundings. Learn about your five senses and the sensing organs associated with each. Discover the properties of common objects by using appropriate sensory descriptors such as high and low, sweet and sour, and smooth and rough."
My Body	K-ESS3-1 K-LS1-1	Unit 2: My Body Summary Explore the amazing human body. Learn how our skeleton holds us up and gives us shape and how our muscles let us move. Find out how our heart pumps blood, how our brain controls our bodies and allow us to think and remember, and how our teeth tear and grind our food.
Introduction to Living Things	K-LS1-1 K.ESS2-2 K.ESS3-1	Unit 3: Introduction to Living Things Summary Our fascinating world consists of both living and nonliving things, and many living things are either plants or animals. Learn that plants and animals have some similarities and some differences, but they all need food, water, and air to grow. Find out why plants need sunlight and animals need shelter.
Plants	K-LS1-1 K-ESS2-2 K-ESS3-1	Unit 4: Plants Summary Discover some of the similarities and differences in a variety of plants. Find out how plants can grow from seeds and produce seeds in their fruit. Next, observe, sort, and graph different seed types. Examine some common edible plants and learn how to identify their structures.
Animals	K-LS1-1 K-ESS2-2 K-ESS3-1	Unit 5: Animals Summary Explore the wonderful variety of animals on our planet. Examine their fur, feathers, skin, and other body coverings, and find out how they move using different body parts. Recognize that some animals eat plants, some eat animals, and others eat both. Meet Jane Goodall, whose 10-year study of chimpanzees helped people gain a better understanding of animals.
Where Animals Live	K-LS1-1 K-ESS2-2 K-ESS3-1	Unit 6: Where Animals Live Summary This unit is OPTIONAL. It is provided for students who seek enrichment or extra practice. Identify types of animals that make their homes in trees, ponds, and caves. Find out how these animals get food and shelter. Recognize that "nocturnal" animals are more active during the night and "diurnal" animals are more active during the day. Examine how nocturnal animals use their senses at night.
Make the Measurement	K-PS3-1 K-PS3-2 K-2-ETS1-1	Unit 7: Make the Measurement Summary Learn how to use your senses and nonstandard units to measure objects. Practice these new skills by sequencing objects according to their weight, capacity, height, length, and temperature. Experiment with a thermometer to find out how you can use it to tell about temperature.
What's the Matter?	K-PS3-1 K-ESS2-1 K-2-ETS1-1	Unit 8: What's the Matter? Summary Explore matter by finding examples of solids, liquids, and gases. Examine solids and liquids to find out which will sink and which will float. Freeze a liquid to make a tasty solid treat. Observe a solid change to a liquid, and then back to a solid again.
What's the Weather?	K-ESS2-1 K-ESS3-2	Unit 9: What's the Weather? Summary Learn about different types of weather, from sunny to stormy. Discover how a thermometer can tell us important information about the temperature outside. Observe weather conditions and give your own weather reports. Understand how to prepare and dress for different kinds of weather.
Seasons	K-ESS2-1 K-ESS3-2	Unit 10: Seasons Summary Discover how plants and animals change during each season and prepare for the one ahead. Follow one entire cycle of seasons, observing the changes in deciduous trees and gray squirrels. Find out how animals use a variety of methods to survive cold winters.

SCOPE AND SEQUENCE

LESSON TITLE	STANDARD	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Planet Earth	K-ESS3-1	Unit 11: Planet Earth Summary Get to know some of the major physical features of our planet, the Earth. Learn that the Earth is spherical in shape. Build a model showing common land shapes and bodies of water found on the Earth's surface.
Taking Care of Our Earth	K-ESS3-3 K-2-ETS1-1	Unit 12: Taking Care of Our Earth Summary Learn about how much the Earth gives us--and how we have to be responsible for not polluting our planet. Discover some things you can do to help conserve water, trees, and electricity. Finally, meet Rachel Carson, a world-famous conservationist who showed us how closely connected we are to nature.
Farming		Unit 13: Farming Summary This unit is OPTIONAL. It is provided for students who seek enrichment or extra practice. Create a model farm and describe the work of a farmer such as planting and harvesting crops and milking cows. Visit four types of farms, each specializing in growing crops or raising livestock. Examine the role farms play in producing food and clothing for people.
Make It Move	K-PS2-1 K-PS2-2 K-2-ETS1-3	Unit 14: Make It Move Summary Make things move with pushes and pulls. See how fast a car will move with a big push. Find out what types of objects a magnet will pick up. Use magnets to push and pull. Watch magnetism work through glass, cloth, paper, and water.
Astronomy	K-ESS3-3 K-2-ETS1-1	Unit 15: Astronomy Summary See just how big our closest star, the sun, really is compared to Earth. Learn about the fanciful patterns, known as constellations, formed by stars in the night sky. Create your own moonscape with sand, flour, cocoa powder, and a marble. Then meet some famous astronauts, including Neil Armstrong and Sally Ride.