

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-SC3F1	Grade Level	3
Course Name	WOL-Science 3	# of Credits	NA
SCED Code	NA	Curriculum Type	K-12 Fuel Education

COURSE DESCRIPTION

SCIENCE 3

Students learn to observe and analyze through hands-on experiments and gain further insight into how scientists understand our world. They observe and chart the phases of the moon, determine the properties of insulators and conductors, and make a three-dimensional model of a bone. Students will explore topics such as weather (air pressure, precipitation, clouds, humidity, fronts, and forecasting), vertebrates (features of fish, amphibians, reptiles, birds, and mammals), ecosystems (climate zones, tundra, forests, desert, grasslands, freshwater, and marine ecosystems), matter (phase changes, volume, mass, atoms), the human body, energy, light, and astronomy.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
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.
3-LS2-1	Construct an argument that some animals form groups that help members survive.
3-LS3-1	Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
3-LS3-2	Use evidence to support the explanation that observable traits can be influenced by the environment.
3-LS4-1	Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.
3-LS4-2	Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
3-LS4-3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
3-LS4-4	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
3-ESS2-1	Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
3-ESS2-2	Obtain and combine information to describe climates in different regions of the world.
3-ESS3-1	Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.
3-5-ETS1-1	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
3-5-ETS1-2	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
3-5-ETS1-3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

SCOPE AND SEQUENCE

LESSON TITLE	STANDARD	OUTCOMES OBJECTIVES/ STUDENT CENTERED GOALS
Weather	3-ESS2-1 3-ESS2-2 3-ESS3-1 3-5-ETS1-1 3-5-ETS1-2	Unit 1: Weather Summary Weather is all around us as we work and play. How do meteorologists make the weather forecasts that we rely on each day? Find out for yourself as you become a meteorologist and use tools to predict the weather.
Classification of Vertebrates	3-LS1-1 3-LS1-2 3-LS3-1 3-LS3-2 3-LS4-2 3-LS4-3 3-LS4-4	Unit 2: Classification of Vertebrates Summary What do fish, amphibians, reptiles, birds, and mammals have in common? They are animals with a backbone, or vertebrates. Your student will learn some distinguishing features of vertebrates, such as how birds fly and why fish can live underwater. She'll be able to use specific features of vertebrate groups to classify animals.
Ecosystems	3-LS1-1 3-LS2-1 3-LS3-1 3-LS3-2 3-LS4-2 3-LS4-3 3-LS4-4	Unit 3: Ecosystems Summary Travel the globe to learn about the amazing variety of ecosystems on our planet. Take a close look at the characteristics of each major ecosystem and see how the plants and animals that live there have adapted to their environment.
Ecosystems of the Past	3-LS1-1 3-LS2-1 3-LS3-1 3-LS3-2 3-LS4-1 3-LS4-2 3-LS4-3 3-LS4-4	Unit 4: Ecosystems of the Past Summary This unit is OPTIONAL. It is provided for students who seek enrichment or extra practice. What do scientists think our planet was like when dinosaurs were alive? How do they think the lands and oceans differed from those of today? Explore scientists' views of the ancient past: early forests where dinosaurs roamed, tundra with woolly mammoths, and ancient reefs in tropical waters.
Properties of Matter	3-PS2-3 3-PS2-4	Unit 5: Properties of Matter Summary Everything in our natural world is made of matter-the food you eat, the water we drink, even the air we breathe. Understand matter and you can begin to understand nature. Do you know what really happens when water boils or an ice pop melts? Experiment with matter and find out!
Physical and Chemical Changes of Matter	4-PS3-3 4-PS3-4 3-5-ETS1-3	Unit 6: Physical and Chemical Changes of Matter Summary Have you ever sat by a roaring fire on a cold winter day and watched the logs turning to ash? You're watching a chemical change. Matter goes through physical and chemical changes every day. Without these changes, most of our world would not exist. Find out more about physical and chemical changes and the elements that make up all matter.
Human Body	3-LS1-1	Unit 7: Human Body Summary Your body is made of many different systems, including the skeletal system and the muscular system. Bones give your body a structure that gives your body shape and, together with muscles, helps you move. Explore the world under and on your skin to see why your body has its shape and appearance.
Energy	4-PS3-1 4-PS3-2 4-PS3-3 4-PS3-4	Unit 8: Energy Summary Think about all the types of energy that you use in your everyday life. You use energy, for instance to heat your house to light up your room, to move your car, to play sports and be active, and much more. Learn about many different forms of energy, how it's used, and how it changes.
Light	3-PS2-1 3-PS2-2 4-PS4-1 4-PS4-2 4-PS4-3	Unit 9: Light Summary Can you imagine what the world would be like if there were no light? Think about it. Without light we wouldn't be able to see anything around us. The world would be a completely dark and cold place. Let's explore the importance of light, how our world might be different if there were no light, and the movement of light from one place to another.

Sun, Earth, and Moon	1-ESS1-1 1-ESS1-2 3-5-ETS1-3	Unit 10: Sun, Earth, and Moon Summary Learn about the shape of Earth and how its tilt causes the seasons. Find out how long the Earth and the moon take to complete an orbit. Discover why the moon is bright and why it has phases you can see from here on Earth. Learn these things and more as you explore the Sun, Earth, and Moon.
The Solar System and Beyond	1-ESS1-1 1-ESS1-2	Unit 11: The Solar System and Beyond Summary Journey through space and discover the eight major planets of the solar system, including the Earth. Also, explore the sun, the moon, as well as other fascinating things that make up the solar system. Everything within the solar system is connected to the Sun by a force known as gravity. Lets start the journey.