Wyoming Department of Education Required Virtual Education Course Syllabus

Sheridan County School District # 1

Program Name	Sheridan County School District #1 Virtual School	Content Area	SC
Course ID	AC03233	Grade Level	3
Course Name	Grade 3 Science	# of Credits	1
SCED Code	03233	Curriculum Type	Acellus

COURSE DESCRIPTION

The Grade 3 Science course provides lessons whereby students observe and investigate topics in life science, earth science, and physics, as well as technology and astronomy. Engaging on-camera experiments and examples help deepen students' understanding of the concepts presented. Students observe, measure, and describe simple systems and include the scientific process.

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		
UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Unit 1 – Plant Life	3-LS3-1; 3-LS4-1	Students compare the similarities and differences between plants, different plant parts, how different plants make seeds, how seeds grow, and fossils.
Unit 2 – Animal Life	3-LS1-1; 3-LS3-1	Through virtual lessons and class activities, students observe and identify vertebrates and invertebrates, animal life cycles with examples of ladybugs and black bears, animal adaptations and instincts, animal fossils, and animal tracks.
Unit 3 – Animals and Plants in Ecosystems	3-LS3-2; 3-LS4-3	Through virtual lessons and class activities, students are introduced to environments, ecosystems, and habitats, as well as grasslands, deserts, and tundra. Students observe and identify the various environments including coniferous, deciduous, and tropical forests, as well as freshwater and saltwater ecosystems.
Unit 4 – Animals and Plants Living Together	3-LS2-1; 3-LS4-2; 3-LS4-4	Students participate in analyzing interactions among and competition between living things. Students distinguish the differences within food webs, changes and patterns of change in environments, determine what makes a healthy environment for humans, the human digestve system, as well as the affects of exercise and germs.
Unit 5 – Water	3-ESS3-1	Students observe and anayze why water is important and how it is used. Students are introduced to the different states of water, the water cycle, how water can be cleaned, and how showflakes are manifested.
Unit 6 – Weather	3-ESS2-1; 3-ESS2-2; 3-ESS3-1	Students observe and participate in analyzing the properties of cloud formation, the atmosphere, how to measure and predict the weather, interpret weather maps, and a general understanding of pollution alerts. Students compare the different kinds of storms, such as blizzards, tornadoes, and hurricanes, as well as storm watches and warning. In conclusion, students are exposed to and are assessed in the effects of carbon dioxide on water.
Unit 7 – Rocks and Soil	3-ESS3-1	Students observe and compare the differences and similarities of rocks and rock layers. Students then classify the different types including sedimentary, metamorphic, and igneous rock, as well as minerals and the many ways they are used. Students then analyze the need for soil, and layers and types of soil used for agriculture and buidling.
Unit 8 – Changes on Earth's Surface	3-ESS2-2	Students are introduced to and discuss the different layers and landforms on the earth, volcanoes, earthquakes, weathering, and erosion.

Unit 9 – Earth's Natural Resources	3-5-ETS1-1; 3-5-ETS1-2; 3-LS4-4	Students are introduced to the significance of natural resources, what they are and how to manage them, including conservation, landfills, reducing, reusing, and recycling.
Unit 10 – Properties of Matter	3-PS2-1; 3-5-ETS1-2	Students review what matter is, its states, and how to measure mass, volume, density, and length.
Unit 11 – Changes in Matter	3-PS2-1; 3-5-ETS1-2	Students observe and are assessed in identifying the various mixtures and solutions, physical and chemical changes in matter, and how we use chemical changes.
Unit 12 – Forces and Motion	3-PS2-2; 3-PS2-4	Students observe and gain an understanding of the physical properties involving motion, position, speed, force, friction, gravity, magnetism, and work.
Unit 13 – Simple Machines	3-5-ETS1-3	Students are introduced to and analyze the mechanical properties of the inclined plane, the wedge, the screw, the lever, the wheel and axle, and the pulley.
Unit 14 – Introduction to Energy	3-5-ETS1-2	Students are introduced to energy and participate in virtual lessons involving observing potential and kinetic energy, how energy changes form, and waves.
Unit 15 – More About Energy	3-PS2-3	Students participate in virtual lessons involving heat, light, and electricity, states of matter and color.
Unit 16 – Sound	3-PS2-3	Students experience virtual lessons and class activities involving vibration, pitch, and sound waves. Students then analyze how humans, musical instruments, and animals make sound, how we hear sound, and how sound travels through matter.
Unit 17 – Looking at the Sky	3-PS2-2	Students are introduced to and observe how the Earth travels around the sun once each year. Students review the phases of the moon, identify the constellations, and analyze how the atmosphere gives the sky its blue color.
Unit 18 – The Solar System	3-ESS2-1	Students review properties of the sun, the inner, outer, and dwarf planets, why there is life on Earth, and how a planet's distance from the sun determines its temperature.
Unit 19 – We Use Science Every Day	3-5-ETS1-1	Students are introduced to technology and computers, unexpected uses for technology, transportation tools, energy, and the arch.