

Wright City Science Curriculum

5th Grade

Grade	5th Grade
Unit of Study	Ecosystem Project
Length of Unit	Three Weeks
Sample Essential Questions How do ecosystems survive?	<u>Sample Corresponding Big Ideas</u> A review of everything we have learned thus far.

Missouri Learning Standards

Priority Standards

5.LS1.A.1. Compare and contrast the major organs/ organ systems (support, reproductive, digestive, transport/circulatory, excretory, response) that perform similar functions for animals belonging to different vertebrate classes.

5.ESS2.A.1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. (Examples could include the influence of the ocean on ecosystems, landform shape, and climate, the influence of the atmosphere on landforms and ecosystems through weather and climate, and the influence of mountain ranges on winds and clouds in the atmosphere.)

5.LS1.C.1. Support and argument that plants get the materials (carbon dioxide, sunlight, water) they need for growth chiefly from air and water. (Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil.)

5.LS2.B.1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (Emphasis is on the idea that matter is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth.)

5.PS3.D.1. Use models to describe that energy stored in food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. (Examples of models could include diagrams and flow charts.)

5.ESS1.B.2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. (Examples of patterns could include the position and motion of the Earth with respect to the sun and selected stars that are visible only in particular months.)

5.PS4.A.1. Develop a model to describe that objects can be seen only when light is reflected off them or when they produce their own light.

5.PS2.B.1. Support an argument that the gravitational force exerted by Earth on objects is directed towards the planet's center. ("Down" is a local description of the direction that points toward the center of the spherical Earth.)

Unit 1 Sequence

MLS	Topic(s)	Learning Targets	Academic Vocabulary
5.LS1.A.1. Ecosystem Project Animal in your Ecosystem I can describe a vertebrate system that lives in my ecosystem. I can describe the job of the digestive system. I can describe the job of the circulatory system. I can describe the job of the urinary system. I can describe the job of the nervous system. I can describe the job of the muscular system. I can describe the job of the skeletal	system. I can describe the job of the respiratory system. I can compare and contrast the digestive system in vertebrates. I can compare and contrast the circulatory system in vertebrates. I can compare and contrast the urinary system in vertebrates. I can compare and contrast the muscular system in vertebrates. I can compare and contrast the skeletal system in vertebrates. I can compare and contrast the respiratory system in vertebrates. I can give examples to support how the	systems work together to help us survive. Vertebrate Invertebrate Digestive System Circulatory System Urinary System Nervous System Muscular System Skeletal System Respiratory System Adaptation Ecosystem Hydrosphere Atmosphere Geosphere Biosphere Water Cycle <u>Evaporation</u>	

5.ESS2.A.1.	Ecosystem Project Sphere Interaction	I can determine five sphere interactions in my ecosystem.	Condensation Precipitation Runoff Change of State Photosynthesis Primary Consumer Secondary Consumer Producer Tertiary Consumer Decomposer Food Chain Food Web Energy Pyramid Life Cycle Weathering Erosion Environment Habitat Shadows Seasons Sunlight Reflection Climates Weather Gravity
5.LS1.C.1.	Ecosystem Project Plants	I can explain how plants survive in my ecosystems. I can model the parts of a plant I can predict where plants get most of their materials for growth. I can prove that plants can grow without soil.	
5.LS2.B.1. 5.PS3.D.1.	Ecosystem Project Food Web Ecosystem Project Food Chain	I can define a primary consumer and give an example. I can define a secondary consumer and give an example. I can define a producer and give an example. I can define a tertiary consumer and give an example. I can define a decomposer and give an example. I can create a food chain. I can create a food web. I can analyze a food web. I can analyze an energy pyramid.	
5.ESS1.B.2.	Ecosystem Project Graph of Sunlight and Shadows	I can analyze the changes in length and directions of shadows throughout the seasons. I can analyze the changes in length and directions of shadows throughout the day. I can explain day and night. I can explain the pattern of sunlight throughout the year.	

5.PS4.A.1.	Ecosystem Project Light Reflection	I can explain the two ways objects can be seen. I can determine how we see an object if it does not create its own light.	
5.PS2.B.1.	Ecosystem Project Gravity	I can describe gravity. I can construct an argument that gravity is a pull to a planet's center. I can explain why "down" is not a good description of gravity.	

MLS	Learning Activities	
	Chosen Ecosystem Project	Must Do
		Option L...
		Option L...
		Option L... Option L...
		Option L...
		Option L...

Assessments		
MLS	Description or Location	Rubric/Location