

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Course/Subject: Wildlife Management
Topic: Wildlife Identification

Days: 4-29 (Additional Animal ID given each Monday and quizzed on Fridays)

Grade Level: 10-12

Key Learning: Students will be able to use resources to identify animals using many different methods.







Unit Essential Question: How can you identify wildlife?

Concept: Pennsylvania Wildlife	Concept: Wildlife Identification	Concept: Wildlife Tracking
Standards: Natural Resource Management 6.1 Describe the history of human impact on fish and wildlife management in Pennsylvania.	Standards: Natural Resource Management 6.2 Identify fish and wildlife found in Pennsylvania	Standards: Natural Resource Management 6.2 Identify fish and wildlife found in Pennsylvania
↓	↓	↓
Lesson Essential Question: What is wildlife? Why does PA have such a variety of species?	Lesson Essential Question: How can we identify animals? How do I identify common species in PA?	Lesson Essential Question: How do you track animals?
↓	↓	↓
Vocabulary: Habitat Diverse Deciduous	Vocabulary: Scat Track Rub Mark Scratch Mark	Vocabulary: Field Guide Etiquette Foretracking Backtracking Collection Area Foot Morphology Nails/Claws Digits/Toes Pads

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

		Metacarpal Hoof Wall Dewclaw Negative Space Hoof/Cleave Symmetry Gait Stride
--	--	---

<u>Concept:</u> Common Mammals of Pennsylvania	<u>Concept:</u> Common birds of Pennsylvania	
<u>Standards:</u> Natural Resource Management 6.2 Identify fish and wildlife found in Pennsylvania CC for Reading in Science & Technical Subjects CC.3.5.9-10.B. Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	<u>Standards:</u> Natural Resource Management 6.2 Identify fish and wildlife found in Pennsylvania	
		
<u>Lesson Essential Question:</u> How do I identify the most common mammals in Pennsylvania?	<u>Lesson Essential Question:</u> How do I identify the most common mammals in Pennsylvania?	
		
<u>Vocabulary:</u> Dog Cat Porcupine	<u>Vocabulary:</u> American Robin American Crow Black-capped Chickadee	

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Raccoon Cottontail Rabbit Coyote Bobcat Black Bear Elk Red Fox Gray Fox White-tail Deer Opossum Eastern Chipmunk Gray Squirrel Flying Squirrel Red Squirrel Beaver River Otter Striped Skunk Gopher/Woodchuck Muskrat Mink Long-Tailed weasel Big Brown Bat Mole Meadow Vole Northern Short-tailed Shrew White Footed Mouse Eastern Woodrat	Blue Jay Common Grackle, male Eastern Kingbird Eastern Bluebird, male European Starling Gray Catbird House Wren Northern Cardinal, male Northern Cardinal, female Northern Mockingbird Red-tailed Hawk Red-winged Blackbird, female American Goldfinch, male	
--	---	--

Additional Information/Resources:

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Course/Subject: Wildlife Management
Topic: Conservation

Grade Level: 10-12
Days: 20-32

Key Learning: The events of the past have created the natural resource management practices of today.



Unit Essential Question: What did Americans do in the past that influenced how we treat nature & wildlife conservation today?

<p>Concept: Wildlife Habitat Management</p>	<p>Concept: Mistakes of the Past</p>	<p>Concept: The Road to Recovery</p>
<p>Standards: Natural Resource Management 1.4 Explain the relationship among organisms, populations, habitats, ecosystems and the impact of human activities on these relationships.</p>	<p>Standards: CC for Writing in Science & Technical Subjects CC.3.6.9-10.B. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. CC.3.6.9-10.E. Use technology, including the internet to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically. Natural Resource Management 1.1 Describe the history of conservation in the United States through the present time. 1.5 Describe and</p>	<p>Standards: CC for Writing in Science & Technical Subjects CC.3.6.9-10.B. Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. CC.3.6.9-10.E. Use technology, including the internet to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically. Natural Resource Management 4.1 Identify natural resources and how they are protected both voluntarily and by law. 4.3 Know the roles of</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

	<p>demonstrate the concept of stewardship on natural resources.</p> <p>4.4 Understand the effect of economics and social trends on the implementation of environmental protection.</p> <p>6.1 Describe the history of human impact on fish and wildlife management in Pennsylvania.</p>	<p>conservation, protection and preservation organizations.</p> <p>6.1 Describe the history of human impact on fish and wildlife management in Pennsylvania.</p>
↓	↓	↓
<p><u>Lesson Essential Question:</u> Why does habitat matter to wildlife? How does the Lorax symbolize conservation?</p>	<p><u>Lesson Essential Question:</u> What actions from our ancestors affected wildlife?</p>	<p><u>Lesson Essential Question:</u> What has been done to try to correct some of our past mistakes? Why was Theodore Roosevelt significant to wildlife conservation?</p>
↓	↓	↓
<p><u>Vocabulary:</u> Wildlife Management Surplus Wildlife Sanctuary Exploitation Conservation Refuge Nonexhaustible Exhaustible Balance of Nature Preservation Environment Ecology Ecosystem</p>	<p><u>Vocabulary:</u> Passenger pigeon Mentality Hunting Regulation Market Hunter Transcontinental Chilled steel plow Sport hunter Migration</p>	<p><u>Vocabulary:</u> Lacey Act – 1900 Teddy Roosevelt – 1901-1909 National Park Act – 1916 Migratory Bird Act – 1918 Aldo Leopold – 1933 Duck Stamp Act – 1934 Pittman – Robertson Act-1937 Federal Water Pollution Act – 1948 Air Pollution Control Act – 1955 Rachel Carlson & <u>Silent Spring</u> Environmental Protection Agency (EPA) Endangered Species Act</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Additional Information/Resources:

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Course/Subject: Wildlife Management
Topic: Wildlife Management

Grade Level: 10-12
Days: 33-64

Key Learning: Students will be able to explain the key components to U.S. wildlife management principles.



Unit Essential Question: Why do we manage wildlife and how is it achieved?

<u>Concept:</u> Wildlife Requirements	<u>Concept:</u> Wildlife Requirements	<u>Concept:</u> Management Strategies
<p>Standards: Natural Resource Management 1.4 Explain the relationship among organisms, populations, habitats, ecosystems and the impact of human activities on these relationships.</p>	<p>Standards: Natural Resource Management 1.4 Explain the relationship among organisms, populations, habitats, ecosystems and the impact of human activities on these relationships.</p>	<p>Standards: Natural Resource Management 1.3 Demonstrate conservation and preservation practices. 1.6 Describe current issues and public concerns in natural resource conservation. 4.3 Know the roles of conservation, protection and preservation organizations. 6.3 Explain and identify fish and wildlife management techniques. 6.4 Understand the impact of land use on fisheries and wildlife. 13.1 Identify and analyze legislation that affects natural resources. 13.2 Defend an opinion on a natural resource issue in a simulated county, state or federal political setting. 13.4 Describe the role of legislative laws and power held by the independent Game Commission and Fish/Boat Commission.</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

		<p>CC for Writing in Science & Technical Subjects CC.3.6.9-10.A. Write arguments focused on discipline-specific content. CC.3.6.9-10.E. Use technology, including the internet to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.</p> <p>CC for Reading in Science & Technical Subjects CC.3.5.9-10.B. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text. CC.3.5.9-10.G. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.</p> <p>CC for English Language Arts CC.1.4.9-10.F. Demonstrate a grade appropriate command of the conventions of standard English grammar, usage,</p>
--	--	--

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

		<p>capitalization, punctuation, and spelling.</p> <p>CC for Mathematics CC.2.1.HS.F.2 Apply and extend the properties of exponents to solve problems with rational exponents. CC.2.4.HS.B.3 Analyze linear models to make interpretations based on the data. CC.2.4.HS.B.5. Make inferences and justify conclusions based on sample surveys, experiments, and observational studies.</p>
↓	↓	↓
<p><u>Lesson Essential Question:</u> How does nature provide habitat for animals?</p>	<p><u>Lesson Essential Question:</u> How does the environment dictate population? When are animals classified as endangered?</p>	<p><u>Lesson Essential Question:</u> How can we “manage” animals? Who is in charge? How can I help?</p>
↓	↓	↓
<p><u>Vocabulary:</u> Wildlife Wildlife management Control Disastrous Predator Prey Cover Space Home range Territory Surplus Carnivore Herbivore</p>	<p><u>Vocabulary:</u> Reproduction potential Population density Carrying capacity Threatened Endangered Extinct Degradation Nonnative Exotic Exploitation Aesthetic</p>	<p><u>Vocabulary:</u> Guzzler Supplemental Food plot Controlled burn Selective cutting Refuge Sanctuary Captive breeding Artificial stocking Overpopulation Reintroduction</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Omnivore Spermivore Euryphagus Stenophagus		
---	--	--

Additional Information/Resources:

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

Course/Subject: Wildlife Management
Topic: White-Tailed Deer

Grade Level: 10-12
Days: 65-88

Key Learning: Students will learn history, biology and management of PA's state mammal, the white-tailed deer.



Unit Essential Question: How can I become a better hunter & why is deer management a necessity in Pennsylvania?

<p>Concept: Pennsylvania's Whitetails</p>	<p>Concept: Deer Vocabulary</p>	<p>Concept: Deer Biology & Management</p>
<p>Standards: Natural Resource Management 1.1 Describe the history of conservation in the United States through the present time.</p>	<p>Standards:</p>	<p>Standards: Natural Resource Management 1.4 Explain the relationship among organisms, populations, habitats, ecosystems and the impact of human activities on these relationships. 4.1 Identify natural resources and how they are protected both voluntarily and by law. 4.3 Know the roles of conservation, protection and preservation organizations. 6.1 Describe the history of human impact on fish and wildlife management in Pennsylvania. 6.2 Identify fish and wildlife found in Pennsylvania 12.3 Analyze recreational uses and their impact on the environment. Animal Science 7.4 Describe animal reproductive behavior.</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

		<p>9.8 Identify the organs and functions of the digestive system.</p> <p>10.1 Describe normal animal behavior by species, along with causes and potential results of abnormal behavior (social, sexual and ingestive).</p>
↓	↓	↓
<p><u>Lesson Essential Question:</u> How did history effect the deer herds of today? How are deer used today?</p>	<p><u>Lesson Essential Question:</u> How do I sound intelligent when talking about deer?</p>	<p><u>Lesson Essential Question:</u> Where are whitetails located? Why do you need to know general biology to manage whitetails? How does habitat affect the physical appearance of deer? Why are deer managed in PA? How are deer managed in PA?</p>
↓	↓	↓
<p><u>Vocabulary:</u> Clear cutting Aesthetics Revenue Biodiversity</p>	<p><u>Vocabulary:</u> Doe Buck Fawn Herd Rut Ungulate Artiodactyla Cervidae</p>	<p><u>Vocabulary:</u> Button Buck Melanistic Albino Piebald Calico Estrus Photoperiodism Gestation Yearling Peripheral Vision Ruminant Cud Predominant Seedling/sapling Regeneration Rumen Reticulum Omasum Abomasum</p>

EASTERN LEBANON COUNTY SCHOOL DISTRICT
STUDENT LEARNING MAP

		Forage Antler Horn Pedicel Velvet Track Browse Buck rub Ground scrape Scat Forb Lyme disease
--	--	---

Additional Information/Resources: