

# ANIMAL SCIENCE CURRICULUM

## Course 18096

Animal Science is designed to introduce students to the different livestock that are raised throughout PA and their economic impact. The students will be taught how to identify the different breeds, their breed strengths and breed characteristics, where they originated, the external parts and any meat cuts associated with them, and many vocabulary terms associated with the breed. Students will look at dairy and beef cattle, pigs, poultry and goats, sheep and horses..

### ANIMAL SCIENCE OUTLINE:

Goals	Skills	Summative Assessments	Time Frame	Main Resources
<ul style="list-style-type: none"><li>• Identify that some systems are found in nature and some systems are made by humans.</li><li>• Identify changes in natural or human made systems.</li><li>• Evaluate how organisms must derive energy from their environment or their food in order to survive.</li><li>• Explain gene inheritance and expression at the molecular level.</li><li>• Evaluate the process of sexual reproduction in influencing genetic variability in a population.</li></ul>	<ul style="list-style-type: none"><li>• Identify major breeds of cattle, swine, sheep, and poultry.</li></ul>	Chapter Tests	1/2-year	

**ANIMAL SCIENCE MAP:**

TIME FRAME	BIG IDEAS	CONCEPTS	ESSENTIAL QUESTIONS	STANDARDS	OBJECTIVES	DIFFERENTIATION	ASSESSMENT
Unit 1 (Weeks 1-3)	<ul style="list-style-type: none"> <li>Humans depend upon the management and practices of agricultural systems.</li> </ul>	<ol style="list-style-type: none"> <li>Agriculture has influenced culture, standard of living and foreign trade.</li> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.4.3.A2 Identify that some systems are found in nature and some systems are made by humans.</p> <p>S3.A.3.1.1 Classify systems as either human-made or natural (e.g., human-made systems [balancing systems, tops, wheel and axle systems, pencil sharpeners from manual to electric]; natural systems [plants, animals, water cycle, stream]).</p> <p>S3.A.3.1.2 Identify changes in natural or human made systems.</p>	<ul style="list-style-type: none"> <li>Identify the major areas of dairy production in the U.S.</li> <li>Explain how the producer uses the reproductive process to maintain milk production.</li> <li>List the uses made of milk.</li> </ul>	<p>Animal science books</p> <p>Dairy charts</p> <p>Real products</p>	<p>Quizzes</p> <p>tests</p>
Unit 2 (Weeks 4-5)	<ul style="list-style-type: none"> <li></li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> <li>Growing conditions throughout the United States determine which plants and animals</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B2 Evaluate the process of sexual reproduction in influencing genetic variability in a population.</p>	<ul style="list-style-type: none"> <li>Explain the importance of the beef industry to economy of the U.S.</li> <li>Justify the use of agricultural land to produce beef.</li> <li>Describe the various segments of the beef industry.</li> </ul>	<p>Animal Science Books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests</p> <p>Quizzes</p> <p>Beef judging</p>

		are most suitable to each region.					
Unit 3 (Weeks 6-7)	<ul style="list-style-type: none"> <li>Living things depend on their habitat to meet their basic needs.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> <li>Growing conditions throughout the United States determine which plants and animals are most suitable to each region.</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B1 Explain gene inheritance and expression at the molecular level.</p>	<ul style="list-style-type: none"> <li>Explain why pork is healthier to eat than it once was.</li> <li>Name the predominate breeds of swine.</li> <li>Describe the production methods involved with raising swine</li> </ul>	<p>Animals science books</p> <p>animal charts</p> <p>judging videos</p>	<p>Tests</p> <p>Quizzes</p> <p>Class Judging</p>
Unit 4 (Weeks 8-9)	<ul style="list-style-type: none"> <li>Living things depend on their habitat to meet their basic needs.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> <li>Growing conditions throughout the United States</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B2 Evaluate the process of sexual reproduction in influencing genetic variability in a population.</p>	<ul style="list-style-type: none"> <li>Explain why pork is healthier to eat now than it once was.</li> <li>Name the predominate breeds of swine.</li> <li>Describe the production methods involved with raising swine.</li> </ul>	<p>Animal science books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests</p> <p>Quizzes</p> <p>Class Judging</p>

		determine which plants and animals are most suitable to each region.					
Unit 5 (Weeks 10-11)	<ul style="list-style-type: none"> <li>Living things depend on their habitat to meet their basic needs.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> <li>Growing conditions throughout the United States determine which plants and animals are most suitable to each region.</li> </ol>	<ul style="list-style-type: none"> <li>What ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B1 Explain gene inheritance and expression at the molecular level.</p>	<ul style="list-style-type: none"> <li>Discuss the importance of goat meat and milk in the diets of Americans.</li> <li>Explain the importance of the goat industry to our economy.</li> </ul>	<p>Animal science books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests Quizzes</p> <p>Class Judging</p>
Unit 6 (Weeks 12-13)	<ul style="list-style-type: none"> <li>Living things depend on their habitat to meet their basic needs.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Technological advancements increase efficiency in production and environmental impacts of agriculture.</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B1 Explain gene inheritance and expression at the molecular level.</p>	<ul style="list-style-type: none"> <li>Explain why sheep have been important to humans throughout history.</li> <li>Discuss the controversy over predators of sheep.</li> <li>List the ways wool is used by humans.</li> </ul>	<p>Animal science books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests Quizzes</p> <p>Class Judging</p>

		3. Agricultural science influences farming practices, efficiency, and nutrition over time.					
Unit 7 (Weeks 13-14)	<ul style="list-style-type: none"> <li>Humans depend upon the management and practices of agricultural systems.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Agricultural science influences farming practices, efficiency, and nutrition over time.</li> <li>Technological advancements have changed society's standard of living and affected the sustainability of natural resources</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B1 Explain gene inheritance and expression at the molecular level.</p> <p>3.1.12.B2 Evaluate the process of sexual reproduction in influencing genetic variability in a population.</p>	<ul style="list-style-type: none"> <li>Explain how the anatomy of a horse makes it ideal for carrying weight and pulling loads.</li> <li>Discuss the importance of the horse industry.</li> <li>Discuss how horses are raised.</li> </ul>	<p>Animal science books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests</p> <p>Quizzes</p> <p>Class Judging</p>
Unit 8 (Weeks 15-16)	<ul style="list-style-type: none"> <li>Living things depend on their habitat to meet their basic needs.</li> </ul>	<ol style="list-style-type: none"> <li>Laws and regulations affect conservation and management of food and fiber production.</li> <li>Laws and regulations affect conservation and management of food and</li> </ol>	<ul style="list-style-type: none"> <li>In what ways are human societies and cultures impacted by management and practices of agricultural systems?</li> </ul>	<p>3.1.12.A2 Evaluate how organisms must derive energy from their environment or their food in order to survive.</p> <p>3.1.12.B1 Explain gene inheritance and expression at the molecular level.</p>	<ul style="list-style-type: none"> <li>Describe how the chick embryo develops in the egg.</li> <li>Describe modern layer operations.</li> <li>List names of major chicken breeds.</li> </ul>	<p>Animal science books</p> <p>Animal Charts</p> <p>Judging videos</p>	<p>Tests</p> <p>Quizzes</p> <p>Class Judging</p>

		fiber production. 3. Technological advancements increase efficiency in production and environmental impacts of agriculture.					
--	--	--	--	--	--	--	--