Course: AG 530: Zoology- Animal Science

Unit	Objective	CAERT Lesson Plan Library	Unit	Problem Area	Lesson
Intro to Animal Science	Match terms associated with an introduction to the livestock industry to their correct definitions	Animal, Plant and Soil Science	B	3	1,2,3,4
Intro to Animal Science	Name the types of livestock.	Animal, Plant and Soil Science	B	2	1,2,3,4,5,6
Intro to Animal Science	Name products and services livestock provide	Animal, Plant and Soil Science	B	1	2
Intro to Animal Science	Identify the sources of Idaho cash farm receipts				
Intro to Animal Science	Identify Idaho's rank in the nation's agriculture for crops, livestock and livestock products				
Intro to Animal Science	Distinguish between primary and secondary food sources	Animal, Plant and Soil Science			
Intro to Animal Science	Describe reasons for and against using livestock as a food source	Animal, Plant and Soil Science	B	1	2
Intro to Animal Science	List three specific careers in each of the seven area of livestock raised in the area	Animal, Plant and Soil Science	B	1	3
Intro to Animal Science	Be familiar with current employment information in the livestock industry	Animal, Plant and Soil Science	B	1	3
Intro to Animal Science	Explain general laboratory procedures, equipment and report writing	Animal, Plant and Soil Science	A	1	3
Intro to Animal Science	Demonstrate the use of a compound microscope	Agriscience	C	3	1
The Organisms	Define terms related to the organisms	Agriscience	C	5	1
The Organisms	List the seven categories of the classification system in order from largest to smallest				
The Organisms	Outline the classification system for humans				
The Organisms	List three traits that help place an organism into a kingdom				
The Organisms	List and define the five kingdoms in the classification system				
The Organisms	State two biological principles for each of the categories that demonstrate commonness among organisms				
The Organisms	Outline the classification of the major livestock animals in the United States				
The Organisms	Examine cells from the five kingdoms				
The Organisms	Classify organisms				
Cell Structure	Match terms associated with cell structure to their correct definitions	Agriscience	C	3	1
Cell Structure	List three things which define a cell	Agriscience	C	3	1
Cell Structure	State the four basic ideas of the cell theory	Agriscience	C	3	1
Cell Structure	List the three ways that cells can differ from one another	Agriscience	C	3	1
Cell Structure	Label the correct parts of an animal cell	Agriscience	C	3	1
Cell Structure	List and describe the cell components and their functions	Agriscience	C	3	1
Cell Structure	Name and describe the functions of the cell organelles	Agriscience	C	3	1
Cell Structure	Describe the differences between plant and animal cells	Agriscience	C	3	1
Cell Structure	List and describe the functions of the major types of specialized animal cells				
Cell Structure	Indentify and describe cells				
Cell Structure	Study cell parts	Agriscience	C	3	1
Cell Structure	Identify differences between plant and animal cells	Agriscience	C	3	1
Functions of the Cell	Match terms associated with cell functions to the correct definitions	Agriscience	C	3	1

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Functions of the Cell	Explain the different ways materials can pass through a cell membrane (Cellular Transport)	Agriscience	C	3	1
Functions of the Cell	List three reasons why photosynthesis is the most important process in the world	Animal, Plant and Soil Science	C	3	3
Functions of the Cell	Explain the processes involved in photosynthesis	Animal, Plant and Soil Science	C	3	3
Functions of the Cell	List five factors that affect photosynthesis rate	Animal, Plant and Soil Science	C	3	3
Functions of the Cell	Explain the process of respiration	Animal, Plant and Soil Science	C	3	4
Functions of the Cell	Outline the relationship between photosynthesis and respiration	Animal, Plant and Soil Science	C	3	4
Functions of the Cell	Explain the process of aerobic respiration	Animal, Plant and Soil Science	C	3	4
Functions of the Cell	Explain the process of fermentation	Animal, Plant and Soil Science	C	3	4
Functions of the Cell	Define homeostasis and explain how cells achieve this state				
Functions of the Cell	Study the movement of substances across membranes				
Animal Tissues, Systems and Organs	Describe the four primary animal tissues				
Animal Tissues, Systems and Organs	Identify the types of epithelial tissue when given a description of each				
Animal Tissues, Systems and Organs	Identify the types of connective tissue when given a description of each				
Animal Tissues, Systems and Organs	Identify the types of muscular tissue when given a description of each				
Animal Tissues, Systems and Organs	Identify the types of nervous tisse when given a description of each				
Animal Tissues, Systems and Organs	State the functions and list the three major organs of the circulatory system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the functions and list the seven major organs of the digestive system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the functions and list the two major organs of the respiratory system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the functions and list the two major organs of the excretory system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the function and list the three major organs of the nervous system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the function and list the major organ of the endocrine system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the functions and list the major organ of the skeletal system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the function and list the major organ of the muscular system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	State the function and list the two major organs of the reproductive system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	Discuss the nervous system anatomy	Agriscience	C	5	2
Animal Tissues, Systems and Organs	Discuss the respiratory system	Agriscience	C	5	2
Animal Tissues, Systems and Organs	Discuss the structure of the heart	Animal, Plant and Soil Science	C	5	2
Genetics and Heredity	Match terms associated with selecting and breeding livestock to the correct definitions	Animal, Plant and Soil Science	B	4	2
Genetics and Heredity	Select from a list hereditary characteristics that are determined by genes	Animal, Plant and Soil Science	B	4	4
Genetics and Heredity	Describe how heritability should affect selection of breeding stock	Animal, Plant and Soil Science	B	4	4
Genetics and Heredity	Match the types of livestock to the correct number of chromosome pairs	Agriscience	A	7	2
Genetics and Heredity	Describe in a short paragraph how the genetic makeup of an animal is determined	Agriscience	A	7	2
Genetics and Heredity	Distinguish between dominant, recessive and incomplete dominant genes	Agriscience	C	3	2
Genetics and Heredity	Distinguish between a simple gene inheritance and multiple gene inheritance	Agriscience	C	3	2
Genetics and Heredity	Describe how the sex of the offspring is determined	Agriscience	C	3	2
Genetics and Heredity	Distinguish between performance testing and progeny testing				
Genetics and Heredity	Match the different systems of breeding livestock to the correct definitions	Animal, Plant and Soil Science	B	4	2

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Genetics and Heredity	Estimate all possible gene combinations when given the matings using the checkerboard procedure	Agriscience	C	3	2
Genetics and Heredity	Observe mitosis and meiosis	Agriscience	C	3	3
Genetics and Heredity	Study sex-linked traits	Animal, Plant and Soil Science			
Genetics and Heredity	Predict inheritance	Agriscience	A	7	2
Genetics and Heredity	Study the influence of chance inheritance				
Genetics and Heredity	Breed fruit flies to study genetics				
Breeding and Reproduction	Match terms associated with reproduction to their correct definitions	Animal, Plant and Soil Science	B	4	2
Breeding and Reproduction	List and describe six types of mating systems	Animal, Plant and Soil Science	B	4	2
Breeding and Reproduction	List and define the four parts of the estrous cycle	Animal, Plant and Soil Science	B	4	2
Breeding and Reproduction	Identify the best time to breed livestock	Animal, Plant and Soil Science	B	4	2
Breeding and Reproduction	Select the components of the male reproductive tract	Animal, Plant and Soil Science	B	4	1
Breeding and Reproduction	Match male reproductive organs to their correct description	Animal, Plant and Soil Science	B	4	1
Breeding and Reproduction	Identify the parts of a cow's reproductive tract and related organs	Animal, Plant and Soil Science	B	4	1
Breeding and Reproduction	Match the female reproductive organs to their correct functions	Animal, Plant and Soil Science	B	4	1
Breeding and Reproduction	Describe the effects of estrogen and progesterone produced by the ovaries and testosterone produced by the testes	Animal, Plant and Soil Science	B	4	1
Breeding and Reproduction	Select advantages of fertility testing in bulls				
Breeding and Reproduction	Select causes of sterility and delayed breeding in bulls				
Breeding and Reproduction	Name the parts of a sperm cell	Biological Science Application in Agriculture	B	3	2
Breeding and Reproduction	Label types of abnormal sperm	Biological Science Application in Agriculture	B	3	2
Breeding and Reproduction	Describe the quality of bovine semen based on color, foreign material, wave pattern and progressive motility	Biological Science Application in Agriculture	B	3	2
Breeding and Reproduction	Name the two best times to check for fertility in bulls				
Breeding and Reproduction	List and describe nine factors causing infertility	Biological Science Application in Agriculture	B	3	2
Breeding and Reproduction	Identify the gestation periods of cattle, horses, swine and sheep	Animal, Plant and Soil Science			
Breeding and Reproduction	Select advantages of pregnancy testing	Animal, Plant and Soil Science			
Livestock Nutrition	Match terms associated with livestock nutrition to their correct definitions	Animal, Plant and Soil Science	B	3	1,2,3,4
Livestock Nutrition	Match the primary parts of a monogastric's digestive system to their functions	Animal, Plant and Soil Science	B	3	2
Livestock Nutrition	Describe the unique characteristics of a ruminants's digestive system	Animal, Plant and Soil Science	B	3	2
Livestock Nutrition	Match the four compartments in the stomach of a ruminant to their functions	Animal, Plant and Soil Science	B	3	2
Livestock Nutrition	Distinguish among animals according to their digestive system	Animal, Plant and Soil Science	B	3	2
Livestock Nutrition	List the major classes of nutrients	Animal, Plant and Soil Science	B	3	3
Livestock Nutrition	Match nutrients to their functions	Animal, Plant and Soil Science	B	3	3
Livestock Nutrition	Describe one function and one deficiency symptom of selected vitamins	Animal, Plant and Soil Science	B	3	3
Livestock Nutrition	Distinguish between major and trace minerals	Animal, Plant and Soil Science	B	3	3
Livestock Nutrition	Match minerals to the correct deficiency symptoms	Animal, Plant and Soil Science	B	3	3
Livestock Nutrition	Describe the advantages and limitations of feeding growth stimulants		B	2	9

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Livestock Nutrition	Describe three effects of feeding antibiotics				
Livestock Nutrition	Compile information on livestock nutrient deficiencies in the local area				
Livestock Nutrition	Dissect a fetal pig to explore the digestive system				
Feeding Livestock	Match terms associated with feeding livestock to their appropriate definitions	Animal, Plant and Soil Science	B	3	1,3
Feeding Livestock	Complete a chart showing composition of feed	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	List three methods used to determine value of feed	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	Describe the procedure for determining dry matter content of feed	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	Distinguish between concentrates and roughages	Animal, Plant and Soil Science	B	3	1
Feeding Livestock	List four factors that affect the feeding value of feeds	Animal, Plant and Soil Science	B	3	1
Feeding Livestock	Match the most common feed grains to their characteristics	Animal, Plant and Soil Science	B	3	1
Feeding Livestock	Name the three most common methods of preparing grains	Animal, Plant and Soil Science	x	x	x
Feeding Livestock	List four common sources of protein	Animal, Plant and Soil Science	B	3	1
Feeding Livestock	Compare plant and animal protein	Animal, Plant and Soil Science	B	3	1
Feeding Livestock	Describe three considerations concerning feeding minerals to livestock	Animal, Plant and Soil Science	B	3	3
Feeding Livestock	List four pieces of information found on feed tags	Animal, Plant and Soil Science			
Feeding Livestock	Describe two advantages and two limitations of using computers for balancing rations	Animal, Plant and Soil Science			
Feeding Livestock	Calculate feed cost per cwt of TDN and per cwt of protein	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	Convert values from a dry-matter basis to an as-fed basis and vice-versa	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	Balance a ration for protein using the Pearson's Square method	Animal, Plant and Soil Science	B	3	4
Feeding Livestock	Balance a ration using the trial-and-error method	Animal, Plant and Soil Science	B	3	4
Animal Health	Match terms associated with maintaining healthy livestock to their definitions	Animal, Plant and Soil Science	B	5	1,2,3
Animal Health	Describe five reasons for preventing diseases as compared to simply curing diseases	Animal, Plant and Soil Science	B	5	1
Animal Health	List five signs indicating healthy livestock	Animal, Plant and Soil Science	B	5	1
Animal Health	List five signs of poor livestock health	Animal, Plant and Soil Science	B	5	1
Animal Health	List the four general causes of disease	Animal, Plant and Soil Science	B	5	2
Animal Health	Describe an effective overall livestock health program	Animal, Plant and Soil Science	B	5	1,2,3
Animal Health	Select the maximum environmental tempertures desirable for cattle	Animal, Plant and Soil Science	x	x	x
Animal Health	Match disinfectants to their uses and limitations	Animal, Plant and Soil Science	B	5	3
Animal Health	Describe how immunity is supplied from different sources	Animal, Plant and Soil Science	B	5	1
Animal Health	List the general types of vaccines				
Animal Health	Describe how vaccines should be cared for and used				
Animal Health	Name three methods of giving animals oral medicines				
Animal Health	Name the agencies responsible for enforcing livestock health regulations in Idaho				
Animal Health	Describe four general health regulations for livestock in Idaho				
Animal Health	Describe the regulation dealing with feeding garbage to swine in Idaho				
Animal Health	List five plants that are poisonous to livestock				
Animal Health	Develop a herd health plan for a livestock operation	Animal, Plant and Soil Science	B	5	1,2,3
Animal Health	Demonstrate the ability to administer oral medicines to cattle	Animal, Plant and Soil Science			
Livestock Diseases and Parasites	Match terms associated with livestock diseases and parasites to their definitions	Animal, Plant and Soil Science	B	5	1

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Livestock Diseases and Parasites	Name three ways diseases are diagnosed	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	List five ways diseases and parasites are spread	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Match livestock diseases caused by poisoning to their characteristics, the animals they affect and the symptoms they cause	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Describe general measures for controlling internal and external parasites	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Distinguish between external and internal parasites	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Identify selected internal and external parasites when given a description of their life cycles	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Identify external parasites when given a drawing	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Complete a chart containing diseases, species affected, symptoms and treatment and control	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Complete a chart containing parasites, symptoms, and treatment and control	Animal, Plant and Soil Science	B	5	1
Livestock Diseases and Parasites	Diagnose various disease and parasite problems when given a description	Animal, Plant and Soil Science	B	5	1
Animal Products	Explain the importance of proper nutrition in the laying hen as related to egg shell quality and yolk composition				
Animal Products	Describe the importance of proper nutrition for milk-production	Animal, Plant and Soil Science	B	2	2/B3-1
Animal Products	Describe the importance of proper nutrition on the composition of milk				
Animal Products	Explain the effects of feed odors on animal product quality				
Animal Products	List the components and their percentages of lean muscle				
Animal Products	List seven factors that describe the value of animal fat in the human diet				
Animal Products	Distinguish between saturated and unsaturated fats				
Animal Products	List three animal products that are good sources of both calcium and phosphorus				
Animal Products	Discuss sourced of animal protein, quality determination and why they are better than plant proteins				
Animal Products	List two animal products low in carbohydrates and two high in carbohydrates and which contain lactose				
Animal Products	Indicate the only natural source for vitamin B 12				
Animal Products	List four animal product sources of Vitamin A				
Animal Products	List three animal product sources of Vitamin B				
Animal Products	List the animal product that is a good natural source for Vitamin D				
Animal Products	Complete a chart to compare the nutritive content of beef sirloin steak and chicken breast in protein content, saturated fat, unsaturated fat, cholesterol and calories				
Animal Products	Discuss animal products in the American diet				
Scientific Method Term Project					