



Idaho 4-H Animal Science Lesson Program Checklist

Member's Name: _____ 4-H Club: _____

Indicate the years (i.e. 2019, 2020, 2021) enrolled in the project below:

This program incorporates a series of age-appropriate, skill-based objectives to guide and encourage 4-H members in gaining a diverse working knowledge related to the animal industry. These skills are in addition to the basic Idaho 4-H project requirements listed below:

- Choose your project animal(s)
- Individually identify each animal (ear tag, etc.)
- Complete project record & involvement report
- Exhibit project animal(s) in quality/showmanship
- Complete Permanent Individual Animal Record – one/animal (breeding only)
- Provide positive proof of ownership based of required days
- Weigh & give primary care during county feed period (market only)
- Give oral presentation related to this project
- Complete any other County-based requirements

All individuals (regardless of age) should begin with Level 1. Youth must complete at least 5 skills/year; at least one of these must be a Quality Assurance [QA] noted activity. The lesson title from where the skill will be learned is in **Bold letters**. A minimum of 15 different skills should be completed before advancing to the next level. Older youth just entering the (species) project are encouraged to move through Levels 1 and 2 at an accelerated rate to enhance their overall 4-H career learning experience. **{Note: Submit this updated checklist annually with your animal project record book.}**

LEVEL 1 SKILLS		Completed (mm/dd/yy)	Leader's Initials
	Describe the reason to provide livestock bedding for your animal Environment: Caring for My Animal		
	Describe the basic facilities (housing, pen space & equipment) needed to safely raise your project animal(s) Housing My Animal		
	Demonstrate how knowing the flight zone of an animal can help you be safe when working with an animal Safe Animal Handling		
	Describe how temperature and air flow can affect the performance and health of an animal Temperature & Ventilation in the Barn		
	Develop a basic (species) project plan (including income, expenses and facilities) What's Your Plan		
	Identify at least 5 breeds within your project species Common Livestock Breeds and Characteristics		
	Identify at least 20 parts of the animal within your project species Evaluation		
	Estimate what the market weight or frame size of your animal should be by the county fair Frame Size and Market-Ready weights		
	Describe the importance of raising a structurally correct animal Structural Conformation		
	Describe the following animal selection traits: muscling, trimness, growth & frame, structure & balance and why they are important - Common Breeds and Characteristics or Evaluation		
	Define why reproduction is important in raising livestock Introduction to Reproduction		
	List 5 basic classifications of nutrients Five Basic Nutrients		
	Describe Average Daily Gain Average Daily Gain		
	Explain why it is important to have a fresh, clean source of water Basic Nutritional Requirements - Ruminant		
	Explain the difference between a roughage, concentrate and supplement Basic Nutritional Requirements - Ruminant		
	Explain the purpose of a feed label Feed Labels		
	Define a monogastric animal Monogastric Nutrition		



	LEVEL 1 SKILLS (continued)	Completed (mm/dd/yy)	Leader's Initials
	List the two types of digestive systems found in most domestic farm animals Basic Nutritional Requirements – Ruminant and Monogastric Nutrition		
	Describe at least 5 symptoms/behaviors of a healthy animal What Does a Healthy Animal Look Like?		
	Describe where injections should be given on your animal Injection Sites and Techniques		
	List three things you can learn from a medication label Reading Medication Labels		
	List 3 things you can do to prevent your animal from getting diseases Preventable Practices		
	Tell why recordkeeping is important in disease prevention Animal Record Keeping for Disease Prevention		
	Explain how a veterinarian can help you keep your animal healthy Veterinary Client Relationships		
	Prepare a list of livestock equipment & supplies needed at a Fair Equipment		
	Describe what you will need to do to be ready to show your animal Getting Ready for the Show		
	Make a list of products that can be used to groom your animal Grooming Beef		
	List some of the steps to halter break or gentle your animal Halter Breaking and Gentling		
	Watch a Showmanship video and demonstrate proper showmanship techniques Showmanship		
	Make a list of animal science related careers Career Exploration		
	Describe how to properly care for your animal at the fair Connecting with the Public through a Positive Image		
	Explain the importance of knowing where food comes from Where Our Food Comes From		
	Prepare a thank you card to be used to thank a sponsor Thank You Letters		
	Discuss why you need to know how much it costs to raises an animal in 4-H Making a Plan – Costs to Raise Market Animals		
(QA)	Describe an animal by-product Animal By-Products		
(QA)	Describe 2 things you can do to properly handle your animal Animal Welfare – Handling		
(QA)	Describe Biosecurity Biosecurity		
(QA)	Conduct a safety evaluation of your livestock facilities; report any changes needed/made to promote animal well-being - Biosecurity		
[QA]	Explain good character and ethics Ethics: Pillars of Character		
(QA)	Define sportsmanship have to do with raising and showing livestock Ethics: Sportsmanship		
(QA)	Tell the difference between wholesale and retail cuts of meat Recognizing Wholesale and Retail Cuts		
(QA)	Describe what Quality Assurance means to you What is Quality Assurance?		



LEVEL 2 SKILLS		Completed (mm/dd/yy)	Leader's Initials
Explain impact of temperature extremes (hot & cold), wind and humidity on livestock performance Environment: Caring for My Animal			
Identify at least 3 problems created by insufficient air circulation within livestock facilities. Temperature and Ventilation (Air Flow) in the Barn			
Explain the impact frame size can have on the final weight of your animal Frame Size and Market Ready Weights			
List 5 things to consider when selecting a project animal Project Animal Selection			
Tell the importance of skeletal structure in animal selection Skeletal Structure			
Evaluate, rank and give reasons on a class of four animals Livestock Judging, Note Taking and Oral Reasons			
Participate in a Livestock Judging activity or contest Livestock Judging, Note Taking and Oral Reasons			
List 3 major parts of the male reproductive system Parts of Reproductive Systems			
Describe the difference between a dominant and recessive gene Genetics			
Define the following terms: purebred, crossbred, heredity Purebred vs. Crossbred			
Explain what a crossbreeding program is and why would it be used Purebred vs. Crossbred			
Identify heat detection methods used for your species of animal Heat Detection			
Describe when the breeding season should be for the species of animal you are raising When will My Livestock Project Animal Be Born?			
Describe the different nutritional needs of a monogastric and a ruminant animal Basic Nutritional Requirements – Ruminant and Monogastric Nutrition			
List at least 7 pieces of information found on a feed tag Feed Labels			
Describe the difference between a “caution” and “warning” on a feed tag Feed Labels			
Demonstrate how to calculate average daily gain Average Daily Gain			
Describe why a ruminant animal can breakdown and utilize more complex feeds Digestive Systems			
Describe a valid Veterinary-Client-Patient relationship Veterinary Client Relationships			
List 6 things you can that would help to keep your animal healthy Preventable Practices			
Explain the difference between a vaccination and a medication Injection Sites and Techniques			
List at least 3 external parasites common to your animal and describe how to treat for them External Parasites			
Describe castration, dehorning and docking Castration, Dehorning and Docking			
Describe the reproductive difference in a castrated male Castration, Dehorning and Docking			
Define medication withdrawal time and describe why it is important to follow medication withdrawal times – Reading Medication Labels			
Demonstrate proper grooming and showmanship techniques for younger members in your group From Showing Level 1 Lessons			
Describe where our food comes from to a friend or an adult Where Our Food Comes From			
Describe or give a demonstration on an agriculture career you are interested in Career Exploration			



LEVEL 2 SKILLS (continued)		Completed (mm/dd/yy)	Leader's Initials
	Demonstrate how to invite buyers to the market animal sale Inviting Buyers to the Market Animal Sale		
	Describe the animal identification options for your species Animal Identification		
	Describe the difference between a bill of sale, receipt and brand inspection Livestock Ownership Records		
(QA)	Describe the term "flight zone" and how you can determine your animal's point of balance Animal Welfare - Moving		
(QA)	List the applicable USDA Quality Grades or USDA Grades for your species Ideal Market Animal		
(QA)	Describe the industry standards for your species of animal Ideal Market Animal		
(QA)	List 10 examples of by-products derived from your species of animal Animal By-products		
(QA)	Describe 5 carcass terms that relate to your animal project Carcass Terminology		
(QA)	Create a Biosecurity plan for your livestock project Biosecurity		
(QA)	Name the six pillars of characters Pillars of Character		
[QA]	Describe unethical behavior and why it's not acceptable in 4-H Consequences of Unethical Behavior		

LEVEL 3 SKILLS		Completed (mm/dd/yy)	Leader's Initials
	Explain why structural soundness is critical in both breeding and market animals; list 5 common structural defects within your species – Structural Conformation		
	Explain the roles of estrogen, FSH, LH and progesterone in male & female reproductive physiology Hormones		
	Define heritability and how it is used in breeding management decisions Expected Progeny Differences (EPD's)		
	Identify the parts of the female reproductive tract for the species you are raising Parts of the Reproductive System		
	Describe the impact using artificial insemination could have in a livestock operation Artificial Insemination		
	Describe why a producer would want to use embryo transfer in their herd or flock Embryo Transfer		
	Describe difference between fat-soluble and water-soluble vitamins; list the 4 fat-soluble vitamins 5 Basic Nutrients		
	Name in order the four compartments within the ruminant stomach; explain how roughages are broken down within that system – Digestive Systems		
	Describe the role body condition scores play in animal production Body Condition Scores		
	Determine how much it will cost to feed your project animal Nutrition Budgets		
	Name at least 8 items that should be listed on an animal treatment record Animal Recordkeeping for Disease Prevention		
	Describe the impacts that parasites can have on animal production Internal Parasites		
	Track weekly market prices for US No 1 hogs, choice lambs or choice/yield grade 3 steers. Plot this information on a graph.		
	Create a YouTube video to promote your animal project for sale Inviting Buyers to the Market Animal Sale		
	Give a marketing/sales presentation (including buyer recruitment, appropriate thank you notes, etc.) at a club/project meeting		



	LEVEL 3 SKILLS (continued)	Completed (mm/dd/yy)	Leader's Initials
	Prepare/give a 7-10 minute presentation on nutrition at your club or group meeting		
	Prepare/give a 7-10 minute presentation on health care at your club or group meeting		
	Prepare/give a 7-10 minute presentation on genetics at your club or group meeting		
	Prepare/give a 7-10 minute presentation on related career opportunities at your club or group meeting		
	Prepare/give a 7-10 minute presentation on reproduction at your club or group meeting		
(QA)	Describe the steps you would take to safely haul your animal project Animal Welfare - Hauling		
(QA)	Determine ribeye area or loin eye area and fat thickness using a picture of the meat or the actual meat cut. Share the results with your club – Carcass Measurements		
(QA)	Explain how the USDA Quality and/or Yield Grades for your species are determined. Quality and Yield Grade		
(QA)	Identify 4 examples of unethical behavior; explain why each is wrong and what you think the consequences should be for someone doing that – Consequences of Unethical Behavior		
(QA)	Prepare/give a 7-10 minutes presentation on wholesale cuts of meat for your project animal species		
[QA]	Prepare/give a 7-10 minute presentation on meat quality at your club or group meeting		
[QA]	Prepare/give a 7-10 minute presentation on quality assurance practices at your club or group meeting		
(QA)	Prepare/give a 7-10 minute presentation on ethics education at your club or group meeting		