



Idaho 4-H Animal Science Lesson Program Checklist

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

Indicate the years (i.e. 2015, 2016, 2017) 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. 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 | | Completed (mm/dd/yy) | Leader's Initials |
|---------|---|-------------------------|----------------------|
| | Describe the basic facilities (housing, pen space & equipment) needed to safely raise your project animal(s) | | |
| | Develop a basic (species) project plan (including income, expenses and facilities) | | |
| | Describe the reason to provide livestock bedding for your animal | | |
| | Identify at least 10 breeds within your project species | | |
| | Identify at least 20 parts of the animal within your project species | | |
| | Define the following terms: purebred, crossbred, conformation, carcass | | |
| | Describe the following animal selection traits: muscling, trimness, growth & frame, structure & balance and why they are important. | | |
| | Explain the difference between a roughage, concentrate and supplement. | | |
| | List the six basic classifications of nutrients | | |
| | Explain why it is important to have a fresh, clean source of water. | | |
| | Explain the purpose of a feed label. | | |
| | List the two types of digestive systems found in most domestic farm animals. | | |
| | Describe what average daily gain and feed efficiency are. | | |
| | Describe at least 5 symptoms/behaviors of a healthy animal | | |
| | Explain what external and internal parasites are. | | |
| | Prepare a list of livestock equipment & supplies needed at a Fair | | |
| | Demonstrate appropriate safety precautions while properly grooming & showing your animal(s). | | |
| | Prepare a thank you card to be used to thank a sponsor | | |
| [QA] | Conduct a safety evaluation of your livestock facilities; report any changes needed/made to promote animal well-being | | |
| [QA] | Explain how a veterinarian can help you keep your animal healthy. | | |
| [QA] | Describe where vaccinations should be given on your animal | | |
| [QA] | Name 3 things you can do to minimize parasites on/in your animal. | | |
| [QA] | Define medication withdrawal time. | | |
| (QA) | Define the following terms: ethics, sportsmanship, quality assurance | | |
| (QA) | Describe what an animal by-product is | | |



| LEVEL 2 | | Completed (mm/dd/yy) | Leader's Initials |
|---------|---|-------------------------|----------------------|
| | Explain impact of temperature extremes (hot & cold), wind and humidity on livestock performance | | |
| | Describe what steps can be taken to minimize odors from manure. | | |
| | Identify at least 3 problems created by insufficient air circulation within livestock facilities. | | |
| | Describe the difference between a dominant and recessive gene. | | |
| | Explain what a crossbreeding program is and why would it be used. | | |
| | Identify heat detection methods used for your species of animal. | | |
| | Identify at least 5 locations used to estimate the degree of muscling and/or degree of finish. | | |
| | Describe the industry standards for your species of animal. | | |
| | Evaluate, rank and give reasons on a class of four animals | | |
| | Describe how nutritional requirements vary based on animal's stage of growth or production. | | |
| | List at least 7 pieces of information found on a feed tag. | | |
| | Describe the differences between a monogastric and ruminant digestive system. | | |
| | Demonstrate how to calculate average daily gain and feed efficiency. | | |
| | List 7 symptoms that might indicate your animal is sick | | |
| | Explain the difference between a vaccination and a medication | | |
| | List at least 3 internal and 2 external parasites common to your animal. | | |
| | Demonstrate proper grooming and showmanship techniques for younger members in your group. | | |
| | Describe the difference between wholesale and retail cuts of meat | | |
| | List the applicable USDA Quality and/or Yield Grades for your species | | |
| | Demonstrate how to use a carcass grid and/or probe in taking carcass measurements | | |
| | Name the six pillars of characters | | |
| | List 10 examples of by-products derived from your species of animal. | | |
| [QA] | Describe 5 things producers can do to minimize stress when handling animals. | | |
| [QA] | Describe the difference between a "caution" and "warning" on a feed tag. | | |
| [QA] | Describe a valid Veterinary-Client-Patient relationship. | | |
| [QA] | List at least 6 pieces of information found on a medication label. | | |
| [QA] | Describe why it is important to follow medication withdrawal times | | |

| LEVEL 3 | | Completed (mm/dd/yy) | Leader's Initials |
|---------|--|-------------------------|----------------------|
| | Explain the roles of estrogen, FSH, LH and progesterone in male & female reproductive physiology. | | |
| | Define heritability and how it is used in breeding management decisions. | | |
| | Identify the parts of the species female and male reproductive tracts. | | |
| | Describe what artificial insemination and embryo transfer is and why producers might use them. | | |
| | Explain why structural soundness is critical in both breeding and market animals; list 5 common structural defects within your species. | | |
| | List the 10 essential amino acids. | | |
| | Describe difference between fat-soluble and water-soluble vitamins; list the 4 fat-soluble vitamins. | | |
| | Name in order the four compartments within the ruminant stomach; explain how roughages are broken down within that system. | | |
| | Explain why average daily gain and feed efficiency are critical factors for successful livestock production operations. | | |
| | Describe the physical and economic impacts that parasites have on animal production. | | |
| | Give a marketing/sales presentation (including buyer recruitment, appropriate thank you notes, etc.) at a club/project meeting | | |
| | Name all the wholesale cuts of meat for your project animal species. | | |
| | Explain how the USDA Quality and/or Yield Grades for your species are determined. | | |
| | Identify 4 examples of unethical behavior; explain why each is wrong and what you think the consequences should be for someone doing that. | | |
| | Track weekly market prices for US No 1 hogs, choice lambs or choice/yield grade 3 steers. Plot this information on a graph. | | |
| | Develop a balanced ration for your project animal species. | | |
| | 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 | | |



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| | Prepare/give a 7-10 minute presentation on genetics at your club or group meeting | | |
| | Prepare/give a 7-10 minute presentation on reproduction at your club or group meeting | | |
| | Prepare/give a 7-10 minute presentation on ethics education at your club or group meeting | | |
| | Prepare/give a 7-10 minute presentation on related career opportunities at your club or group meeting | | |
| [QA] | Name and describe at least four common routes of administering a health care product. | | |
| [QA] | Describe the preferred method of administering a vaccine (if not specified) and why it is preferred. | | |
| [QA] | Name at least 8 items that should be listed on an animal treatment record. | | |
| [QA] | Explain the differences between "extra-labelled" and "off-labelled" use of medications or vaccines. | | |
| [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 | | |