



ANIMAL SCIENCE MERIT BADGE WORK SHEET (BYU/UVU PowWow)

Scout's Name

Instructor's Name

Scout's Address

City

State

ZIP

Instructions

- 1) The Scout is to review the merit badge book before the first week of the PowWow.
- 2) Bring this worksheet, paper, and pen or pencil each week.

Requirement Instructions*

- 1) Requirement 1 will be covered and should be passed off during the two sessions of PowWow.
- 2) Requirement 2 will be covered and should be passed off during the two sessions of PowWow.
- 3) Requirement 3 will be covered and should be passed off during the two sessions of PowWow.
- 4) Requirement 4 will be covered and should be passed off during the two sessions of PowWow.
- 5) Requirement 5 will be covered and should be passed off during the two sessions of PowWow.
- 6) Requirement 6 must be completed as **homework** in the time between the two sessions of PowWow.
- 7) Requirements not passed off the first Saturday may be passed off the second Saturday.

*All requirements may be subject to change by the merit badge counselor based on time constraints at the PowWow session. Please listen to all instructions given by the instructor to be aware of any changes.

Requirement 1

Initial

Name four breeds of livestock in each of the following classifications. For each breed, tell their principal use and merits. Tell where the breed originated.

HORSES

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

DAIRY CATTLE

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Breed: _____ Origination: _____

Merits: _____

Principal Uses: _____

Disease: Symptoms:
Treatment:

DAIRY CATTLE

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

BEEF CATTLE

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

SHEEP

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

HOGS

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

Disease: Symptoms:
Treatment:

Requirement 3

Initial

Explain the major differences in the digestive systems of ruminant and nonruminant animals.

Explain the differences in feeds typically used for beef cattle and for dairy cows.

Requirement 4

Initial

Tell how you would properly maintain a cow, horse, sheep, goat, or hog, or a poultry flock, including adequate feeding. Tell what must be done to prevent illness, blemishes, defects, and disease arising from improper and unsanitary conditions.

Requirement 5

Initial

Tell about three career opportunities in animal science.

Requirement 6

Initial

Complete one of the following options:

Beef Cattle Option:

Visit a farm or a ranch where beef cattle are produced under any of these systems:

- * Feeding market cattle for harvest.
- * Producing feeder cattle for sale to commercial cattle feeders.
- * Producing purebred cattle for sale as breeding stock to other breeders.

Talk to the operator. Tell (on another piece of paper) how the cattle were handled, fed, weighed, and shipped.

Use another piece of paper to sketch a plan of a feedlot, forage and grain storage facilities, and loading chute for 30 or more fattening steers, or a corral plan with cutting and loading chutes for handling 50 or more beef cows and their calves at one time.

Submit a sketch showing the principal wholesale and retail cuts of beef. Tell about the U.S. Department of Agriculture (USDA) dual grading system of beef. Tell about the grades in each system.

Define the following terms:

Bull:

Steer:

Bullock:

Cow:

Heifer:

Freemartin:

Heiferette:

Calf:

Dairying Option:

On another sheet of paper, tell how a cow or a goat converts forage and grain into milk.

Make a chart showing the ingredients in cow's milk or goat's milk. Chart the amount of each ingredient.

Explain the requirements for producing grade A milk. Tell how and why the milk is pasteurized.

Tell about the kinds of equipment and sanitation standards for dairy farms.

Visit a dairy farm or milk processing plant. Tell about your visit.

Define the following terms:

Bull:

Cow:

Steer:

Heifer:

Springer:

Buck:

Doe:

Kid:

Horse Option:

Use another piece of paper to make a sketch of a useful saddle horse barn and exercise yard.

Tell about the history of the horse and the benefits it has brought to people.

Define the following terms:

Mare:

Stallion:

Gelding:

Foal:

Colt:

Filly:

Mustang:

Quarter Horse:

Draft Horse:

Pacer:

Trotter:

Pinto:

Calico:

Palomino:

Overo:

Tobiano:

Visit a horse farm. Describe your experience.

Outline the proper feeding of a horse doing light work. Explain why the amount and kind of feed will change according to the kind of horse and the work it does.

Describe the symptoms of colic.

Sheep Option:

Use another piece of paper to make a sketch of a live lamb. Show the location of various wholesale and retail cuts.

Select two breeds that would be appropriate for the production of crossbred market lambs in your region. Identify which breed the ram should be.

Choose three breeds and offer a crossbreeding plan that would use the best characteristics of each breed for maximum sheep production efficiency.

Visit a farm or ranch where sheep are raised. Tell about your visit, including the feeding program used. If you cannot visit a sheep farm or ranch, view a video from a breed association, or research the Internet for information on sheep production. Tell about your findings.

Describe some differences between the production of purebred and commercial lambs.

Define the following terms:

Wether:

Ewe:

Ram:

Lamb:

Hog Option:

Visit a farm where hogs are produced, or visit a packing plant handling hogs. Describe your visit. If you cannot visit a hog production unit or packing plant, view a video from a packer or processor. Tell about the video.

On another piece of paper, outline in writing the proper feeding from the breeding of gilt or sow through the weaning of the litter. Discuss the growth and finishing periods.

Make a sketch showing the principal wholesale and retail cuts of pork. Tell about the recommended USDA grades of pork. Tell the basis for each grade.

Define the following terms:

Gilt:

Sow:

Barrow:

Boar:

Poultry Option:

Do ONE of the following:

- a. Manage an egg-producing flock for five months. Keep records of feed purchased, eggs sold, medication, vaccination, and mortality. Present your records for review.
- b. Raise 20 chicks, poults, or ducklings. Keep records of feed intake, weight gains, medication, vaccination, and mortality. Present your records for review. Kill and dress two birds.
- c. Visit a commercial layer or broiler chicken producer, or a turkey production unit. Tell about your visit. If you cannot visit a commercial poultry or egg farm, view a video from a poultry association or research the Internet for information on poultry production. Tell about your findings.

On another piece of paper, make a sketch of a layer house or broiler house showing nests, roosts, feeders, waterers, and means of ventilation. Explain how insulation, ventilation, temperature controls, automatic lights, and other environmental controls are used to protect birds from heat, cold, and bad weather:

Tell about the grading of eggs.

Tell how broilers (fryers) are graded.

Describe the classes of chicken meat.

Define the following terms:

Hen:

Rooster:

Chick:

Capon:

Tom:

Poult:

Merit badge worksheets will not be accepted at the Council Office in place of the official Merit Badge Application Card. Those who do not complete all the requirements should take their partially completed merit badge worksheet and their official application card to their local merit badge counselors for completion.