

## ANIMAL SCIENCE MERIT BADGE WORKBOOK

This Scoutmaster Bucky Merit Badge Workbook is based off the current *Scouts BSA Requirements*.

Consider also using the Animal Science merit badge class preparation page for clarification and expectations when participating in a Scoutmaster Bucky merit badge opportunity ([online](#) or [in-person](#)).

<https://scoutmasterbucky.com/merit-badges/animal-science/>

Scout's  
Name:

### Horse Option

This workbook covers only one of the options for this merit badge. Check the Scoutmaster Bucky website for the other possibilities.

**REQUIREMENT 1:** Name four breeds of livestock in each of the following classifications: horses, dairy cattle, beef cattle, sheep, hogs, poultry, and goats. Tell their principal uses and merits. Tell where the breeds originated.

Four breeds of horses

Four breeds of dairy cattle

Four breeds of beef cattle

Four breeds of sheep

Four breeds of hogs

**REQUIREMENT 2:** List five diseases that afflict the animals in each of the classifications in requirement 1. Also list five diseases of poultry. Describe the symptoms of each disease and explain how each is contracted and how it could be prevented.

Five diseases afflicting horses, how each are contracted and how each could be prevented

Five diseases afflicting dairy cattle, how each are contracted and how each could be prevented

Five diseases afflicting beef cattle, how each are contracted and how each could be prevented

Five diseases afflicting sheep, how each are contracted and how each could be prevented

Five diseases afflicting hogs, how each are contracted and how each could be prevented

Five diseases afflicting poultry, how each are contracted and how each could be prevented

**REQUIREMENT 3:** Explain the differences in the digestive systems of ruminants, horses, pigs, and poultry. Explain how the differences in structure and function among these types of digestive tracts affect the nutritional management of these species.

Digestive system of ruminants and how it affects the nutritional management

Digestive system of horses and how it affects the nutritional management

Digestive system of pigs and how it affects the nutritional management

Digestive system of poultry and how it affects the nutritional management

**REQUIREMENT 4:** Select one type of animal—beef cow, dairy cow, horse, sheep, goat, or hog, or a poultry flock—and tell how you would properly manage it. Include in your discussion nutritional (feeding) concerns, housing, disease prevention, waste control/removal, breeding programs, and biosecurity as appropriate.

Your selected type of animal

How you would properly manage it

Nutritional concerns

Housing

Disease prevention

Waste control/removal

Breeding programs

Biosecurity

**REQUIREMENT 5:** Explain the importance of setting clear goals for any animal breeding program. Tell how purebred lines of animals are produced. Explain the practice of crossbreeding and the value of this practice.

Importance of setting clear goals

How purebred lines of animals are produced

The practice of crossbreeding

The value of crossbreeding

**REQUIREMENT 6:** Complete ONE of the following options:

**Horse Option**

**REQUIREMENT A:** Make a sketch of a useful saddle horse barn and exercise yard.



**REQUIREMENT B:** Tell about the history of the horse and the benefits it has brought to people. Using the four breeds of horses you chose in requirement 1, discuss the different special uses of each breed.



History of the horse

Benefits it has brought to people

Special uses for each breed you chose in requirement 1

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**REQUIREMENT C:** Define the following terms: mare, stallion, gelding, foal, colt, filly; mustang, quarter horse, draft horse, pacer, trotter; pinto, calico, palomino, roan, overo, tobiano.

Mare

Stallion

Gelding

Foal

Colt

Filly

Mustang

Quarter horse

Draft horse

Pacer

Trotter

Pinto

Calico

Palomino

Roan

Overo

Tobiano

**REQUIREMENT D:** Visit a horse farm. Describe what you saw and explain what you learned. If you cannot visit a horse farm, view a video from a breed association, or research the internet (with your parent's permission) for information on horses. Tell about your findings.

**REQUIREMENT E:** 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 what colic is, what can cause it, and its symptoms.

Proper feeding of a horse doing light work

Why the amount and kind of feed will change according to the kind of horse and the work it does

Describe what colic is, what can cause it, and its symptoms

**REQUIREMENT 7:** Find out about three career opportunities in animal science. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

Three career opportunities

Education, training, and experience required for one profession