



# Middle School Animal Science: Introduction (MAG2021B)

## NDCDE User Guide

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Welcome: Start Here!

## Animal Breeds Project

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Beef and Milk Cow Breeds

SAMPLE Breeds PowerPoint

Submit Beef and Dairy Breeds HERE!

## Unit 1 ... Animal Science Terminology!

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Animal Terminology Power Point

Animal Terms and Their Proper Usage

Unit 1 Quiz

## Unit 2 ... Animal Growth and Development

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Unit 2 Concepts and Terms

Livestock Growth and Development

Livestock Growth and Development PPT

USDA Beef Carcass Price

Market News

Unit 2 Vocabulary Quiz

One Hungry Planet -- Just Interesting...No Assignment

Some Food for Thought -- Just Interesting...No Assignment

Unit 2 Quiz

## Unit 3 ... Marketing Livestock

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Unit 3 Concepts and Terms

Marketing Livestock

Marketing Livestock PPT

Introduction to Preconditioning Calves

Genetic considerations for Preconditioning Sales Video

Nutrition and Management Considerations for Preconditioning Home Raised Beef Calves

Explore a Farmers Market Business

Unit 3 Quiz

## Unit 4 ... Non-Ruminant Animal Nutrition and Pre-conditioning Calves

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Unit 4 Concepts and Terms

Nonruminant Nutrition

Non Ruminant Animals PPT

The Equine Digestive System

Pig Digestive System

Digestive Systems of Livestock: Anatomy & Dissection

Unit 4 Vocabulary Quiz

Unit 4 Quiz

## Unit 5 ...The Ruminant Digestive System

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Unit 5 Concepts and Terms

Ruminant Nutrition

Ruminant Animal Digestion Management

Ruminant Animal Digestion PPT

Ruminant Animal Digestion Interactive Website

Ruminant Nutrition Video

Unit 5 Vocabulary Quiz

Unit 5 Quiz

## Unit 6... Livestock Breeding Systems

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Unit 6 Concepts and Terms

Livestock Breeding Systems

Livestock Breeding Systems PPT

Planned Crossbreeding Pays

$A \times B \times C \times D = \text{Reproductive Success}$

Cross breeding in beef cattle herds

Sheep Breeding Systems

Buying Gilts vs. Grandparenting

Use of Superior Maternal Sires in Terminal Crossbreeding Systems

Implementation of Terminal Crossbreeding Systems

Unit 6 Quiz

## Unit 7 ... Introduction to Animal Genetics

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Unit 7 and 8 Concepts and Terms

Genetics 101 Part 1: What are genes?

Genetics 101 Part 2: What are SNPs?

Genetics 101 Part 3: Where do your genes come from?

Genetics 101 Part 4: What is phenotype?

Animal Genetics Definitions

Animal Genetics -- Punnett Square

Punnett Square Video 1

Punnett Square PPT

Punnett Square Video 2

Codominance and Incomplete Dominance

Punnett Square Practice Problems

Unit 7 Quiz

## Mid-Term Exam

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## Unit 8 ... Livestock Performance Data

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Livestock Performance Data PPT

Livestock Performance Data

Understanding EPD's

Understanding Expected Progeny Differences (EPDs)

Using EPDs In Your Operation

Stages

EPDs and Sire Summaries

Using Performance Data in Judging Classes

Unit 8 Vocabulary Quiz

Unit 8 Quiz

## Unit 9 ... Farm Animal Reproductive Physiology

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Unit 9 Concepts and Terms  
Farm Animal Reproductive Physiology  
Animal Reproduction PPT  
Animal Reproductive Interactive  
Excellent EPD INFO  
The Importance of Accuracy Numbers ACC  
Effects of Nutrition on Beef Cow Reproduction  
Unit 9 Vocabulary Quiz  
Unit 9 Quiz

## Unit 10 ... Livestock Rations and the Net Energy System

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Unit 10 Concepts and Terms  
Livestock Rations  
Feed Rations PPT  
Pearson Square Reading  
Forage Quality  
Understanding Forage Quality Analysis  
Interpreting Forage Quality Reports  
Tests Available for Measuring Forage Quality  
Fiber and Energy  
Unit 10 Vocabulary Quiz  
Unit 10 Quiz

## Unit 11 ... Improving Animal Reproduction

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Unit 11 Concepts and Terms  
Improving Animal Reproduction  
Effects of Nutrition on Beef Cow Reproduction  
Integrating Nutrition for Cattle Reproduction Video PT 1  
Integrating Nutrition for Cattle Reproduction Video PT 2  
Integrating Nutrition for Cattle Reproduction Video PT 3  
Integrating Nutrition for Cattle Reproduction Video PT 4  
New Animal Technologies  
Unit 11 Vocabulary Quiz  
Unit 11 Quiz

## Unit 12 ... Quality Assurance

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Unit 12 Concepts and Terms  
BQA  
Quality Assurance  
Beef Feed Quality Assurance Video  
Cattle Quality Assurance Video  
High Tech Hog Facility  
Livestock Handling Guide  
Pork Quality Assurance  
Safe and Effective Vaccine Administration  
Unit 12 Vocabulary Quiz  
Unit 12 Quiz

## Unit 13 ... Manure Storage and Handling

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Unit 13 Concepts and Terms  
Manure Storage and Handling  
Manure Storage and Handling PPT  
Calibrating Manure Spreaders

Dairy Manure as a Fertilizer Source  
Reducing Contamination by Improving Livestock, Manure Storage and Treatment Facilities  
Storage and Handling  
Livestock Safety – Manure Handling and Storage  
Swine Manure  
Unit 13 Quiz

## Unit 14 ... Permitting and Water Usage

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Unit 14 Concepts and Terms  
Permitting Requirements for Large Livestock Operations  
Water Usage for Livestock Operations  
Water is important to beef cattle!  
Environmental Stewardship - Stoney Point Video  
Environmental Stewardship - Young's Cattle Co.  
Unit 14 Vocabulary Quiz  
Unit 14 Quiz

## Animal Science I Final

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NAASO Survey -- PLEASE TAKE THIS SURVEY!  
Animal Science- Introduction Final Exam

## End of Course Survey

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End of Course Survey