

Advanced Animal Science Scope and Sequence
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Unit 1: History of the Animal Science Industry, Domestication, and Production

LAB: Research World Ag

LAB: Illustrate Timeline

Unit 2: Careers in the Animal Science Industry

LAB: Research Careers in Agriculture

Guest Speakers (utilize community members in Ag if possible for student exposure)

Unit 3: Lab Safety

LAB: Safety demonstrations (goggles)

Lab safety rap

Create Safety posters for the lab

Lab safety contract and test (100% score)

Unit 4: Scientific Method

LAB: Observation versus Inference (examples, apples, elephant)

LAB: Ivory Soap

LAB: M&M Graphing

Unit 5: Animal Welfare Versus Animal Rights

Debate

LAB: Research Food Inc Rebuttal

Unit 6: Breeds of Livestock

LAB: Research breed

LAB: Create your own breed

LAB: Apocalypse decision

Unit 7: Livestock Evaluation and Grading

LAB: Chalk/paint a species of animal

LAB: Cookie Cutter

Online Resources

Unit 8: Meats and Food Safety

LAB: package, preservation, marketing, value added

LAB: Meats tasting

Unit 9: Digestion

LAB: Create digestive tract

LAB: Dissect quail

LAB: Dissect digestive tract of a deer

Unit 10: Nutrition and Feeds

LAB: Cereal

LAB: Particles size and shape

LAB: Trail Mix

LAB: Pearson Square practice

LAB: create feed and feed sack

LAB: Banana Bread

Unit 11: Cells

LAB: Elodia, Cheek, and Onion Cells

LAB: Parts and observation with microscope

Unit 12: Genetics

LAB: Have your DNA and eat it too

LAB: Strawberry DNA Extraction

LAB: Mitosis flip book

LAB: Wards Mitosis Lab Kit

Unit 13: Repro and Estrus Cycle

LAB: create male and female repro tract

LAB: Dissect tract

LAB: Hormone Scavenger Hunt

Unit 14: AI, Embryo Transfer, In-vitro, Palpation

LAB: Demonstrations and practice

Field Trip to Sexing Technologies

Unit 15: Skeletal, Muscle, and Nervous Systems

LAB: Pasta skeletal system

LAB: Nerve Speed Test

LAB: How your skin senses

LAB: Make your own homunculus

Unit 16: Respiratory, Circulatory, and Urinary Systems

LAB: Create a heart with blood flow

LAB: Urinalysis

Unit 17: Animal health

LAB: Animal Vital Signs

LAB: Research diseases

LAB: Mastitis testing

LAB: Research parasites

Unit 18: Biotechnology

LAB: Cloning