

North Carolina Agricultural Education



Animal Science I - Course Proficiency Evaluation

Example Activities Guide

Note: Course instructors are to determine student proficiency in this course by evaluating individual student performance on selected objectives by utilizing example activities included in this document or through a variety of other formative and summative assessments created locally.

The following examples have been compiled to provide a sample of possible evaluation activities, to determine if a student has “Met” or “Not Met” the criteria for each objective. These examples are not an exhaustive list and are not to be considered the only available options to determine proficiency.

1. CREDENTIAL / CERTIFICATION

- a. Successfully earn one of the NCDPI approved credentials or certifications for the Animal Science I course.
 - Completion of Youth for the Quality Care of Animals certification.
 - Youth for the Quality Care of Animals (YQCA) is a national multi-species quality assurance program for youth ages 8 to 21. It is designed as an annual education and certification program focused on food safety, animal well-being, and character awareness for youth producing and/or showing pigs, beef cattle, dairy cattle, sheep, goats, market rabbits, and poultry. The program has been designed to ensure it is accurate, current and relevant to the needs of the animal industry and shows and is appropriate for youth.
 - For certification information visit: <http://yqca.org/>
 - To become a certified instructor in NC, contact:
 - Brent J. Jennings - 4-H Youth Livestock
 - brent_jennings@ncsu.edu
 - Completion of the NC Beef Quality Assurance
 - Beef Quality Assurance (NC-BQA), is a cooperative effort between beef producers, veterinarians, nutritionists, extension staff, and other professionals that is focused on the safety, wholesomeness, and quality of beef.
 - For certification information visit: <https://www.nccattle.com/nc-bqa>

2. PUBLIC SPEAKING (ES 1.00)

- a. Communicate thoughts, ideas, and action plans with clarity, when using written, verbal, and/or visual methods.
 - Compose and deliver a presentation on a topic related to this course.
 - Critique and evaluate a speech, FFA Creed, or other presentation by CDE finalists from the National FFA Convention archives using the appropriate rubric.
 - Create an infographic display to be exhibited at school on an animal science topic.

- b. Interact with others by being an active listener and by speaking clearly and with purpose.
 - Participate in mock business meeting using parliamentary procedure.
 - Actively participate in a class discussion/debate on an agricultural topic.

- c. Appropriately consider the audience when planning for a presentation and prepare accordingly to ensure the desired outcome.
 - Compose and deliver a presentation on a topic related to this course.
 - Create a lesson plan on animal agriculture to be presented to elementary school students or an exceptional student class.

Prepared Public Presentation Assignment

Student Instructions:

- Students will research, compose and deliver a 4-6 minute presentation on an agricultural topic. Each student's presentation must be the result of the student's own efforts. Students must submit one printed copy of their presentation before they present.
- Manuscripts should be double-spaced and typewritten. The manuscript should have a bibliography for citing references. The bibliography should follow APA style.
- Facts and data may be obtained from any reputable source.
- Time Limit- Each presentation shall be a minimum of four minutes in length and a maximum of six minutes. At the conclusion, there will be a question/answer session that does not include the 6-minute time frame.

Assignment: Use the following format to create a presentation outline and use the information below to help guide you on what needs to be included.

I. Introduction

- a. Provide an introduction to your presentation such as a story or facts/figures that will lead the audience into your topic.
- b. Preview Statement: This is the equivalent of the thesis statement that you write for a regular English paper. Ex: "Today I'm going to help you discover the world of forestry by first explaining how timber is harvested, and then we'll look at ... The preview statement overviews the three main topic ideas of your presentation.

II. Body: This is the "meat and potatoes" of your presentation. In your outline give pieces of information that you would include in each main point.

III. Conclusion

- a. Review Statement: This is simply the reverse of your Preview Statement. Ex: Today we looked at the world of forestry by first...
- b. Closing Remarks

Prepared Public Presentation Assignment – Grading Rubric

Indicators	Very strong evidence skill is present	Moderate evidence skill is present	Strong evidence skill is not present	Points Earned
Possible Points	5-4	3-2	1-0	
A. Supporting Evidence	Examples (stories, statistics, etc.) are vivid, precise, and clearly explained.	Examples are usually concrete, sometimes needs clarification.	Examples are sometimes confusing, leaving the listeners with questions.	
B. Persuasive use of evidence	Exemplary use of evidence to persuade listeners.	Sufficient use of evidence to persuade listeners.	Has difficulty using evidence to persuade listeners.	
C. Pace	Speaks very articulately at rate that engages audience.	Speaks articulately but occasionally speaks too fast or has long unnecessary hesitations.	Speaks too fast or too slow to engage audience.	
D. Command of Audience	Speaker uses appropriate emphasis and tone to captivate the audience.	Speaker presents speech as mere repeating of facts and speech comes across as a report.	Speaker lacks enthusiasm and power to engage the audience	
E. Eye Contact	Constantly looks at the entire audience (90 - 100% of the time).	Mostly looks around the audience (60 – 80% of the time).	Occasionally looks at someone or some groups (less than 50% of the time).	
F. Mannerisms and gestures	No nervous habits are displayed. Hand motions are expressive and used to emphasize talking points.	Sometimes exhibits nervous habits. Hands are sometimes used to express or emphasize.	Displays some nervous habits. Hands are not used to emphasize talking points; hand motions are sometimes distracting.	
G. Poise	Portrays confidence and composure through appropriate body language (stance, posture, facial expressions)	Maintains control most of the time, rarely loses composure.	Lacks confidence and composure.	
TOTAL SCORE:				

Student Name: _____

Class/Period: _____

Parliamentary Procedure Mock Business Meeting Assignment

Objectives:

- Discuss parliamentary procedure guidelines.
- Demonstrate knowledge of parliamentary procedure abilities.
- Collaborate to develop a script that outlines a business meeting.

Instructions:

1. The teacher will divide the class into groups of 6-7 students. Every student in the group will select an “officer” position. Please remember the president will be presiding over the meeting and help lead your group through a mock parliamentary procedure business meeting. Each group will practice and present the FFA opening and closing ceremony as a part of their business meeting. You do not need to memorize the officer parts!

2. As an “officer team,” you will work to create a flow chart script that includes the following abilities:

Main Motion, Amend, Refer to Committee, Point of Order, Division of House, Previous Question, and Adjourn

– The president can use the script during the mock business meeting, but members must participate from memory.

3. Grading Rubric:

– To complete the assignment students must work together to create the script and PRACTICE it prior to the presentation date.

– The student “president” is scored based on their ability to lead the officer team through the meeting following parliamentary procedure rules.

– Each student receives an individual grade based on the following rubric:

1. 25 points for opening and closing ceremony.
2. 25 points for one “primary” motion. (Main, Refer to Committee, Amend)
3. 25 points for one “accessory” motion. (Division of house, Point of order, Previous question)
4. 25 points for discussion during debate.

3. LEADERSHIP / FFA (ES 1.00)

- a. Consistently act in ways that align to personal and community-held ideals and principles, while employing strategies to positively influence others.
 - Participate in FFA leadership opportunities: serve as a chapter FFA officer or FFA committee member, participate in LDE/CDE teams, support chapter fundraising programs, mentor new FFA members, etc.
 - Participate in Regional Leadership Conference, State Leadership Conference, or Washington Leadership Conference.
 - Volunteer and participate in school/FFA community service activities.

- b. Use a variety of means to positively impact the direction and actions of a team or organization.
 - Serve as an active member of FFA officer team or committee
 - Participate in activities based around team building, communication, and goal setting.
 - Maintain active membership in any school group, team, or community club.

- c. Demonstrate the ability to manage a meeting to accomplish a goal or objective.
 - Participate in mock business meeting using parliamentary procedure.
 - Use team-building activities to allow students to plan and implement a goal.
Example: Capture the Flag
 - Utilize class officers to manage classrooms (attendance, announcements, Q/A for classroom activities, handing out of materials and assignments) as well as daily Opening and Closing ceremony

4. WORK BASED LEARNING / SAE / CAREER EXPLORATION (ES 2.00)

- a. Explore individual career interests, set goals, and understand career requirements.
 - Create a quality resume that outlines career goals, educational experience, honors and awards, qualifications, and references.
 - Use a career aptitude test to determine skills that students are most suited for with reference to employability.

- b. Develop employability skills, personal financial literacy, workplace safety practices, and expand their knowledge of agricultural literacy.
 - Completion of a Foundational SAE
 - Participate in mock job interviews.
 - Create a monthly budget for an individual based on average income and common expenses.

Resume Rubric

Indicator	Very strong evidence of skill is present	Moderate evidence of skill is present	Weak evidence of skill is present	Points Earned
Possible Points	5-4	3-2	1-0	
Contact Information	Includes name, address, email address, and phone number; name stands out on resume; provides professional e-mail address	Name does not stand out; email address is too casual	Missing name, address, email, or phone number; email address used is inappropriate or unprofessional.	
Employment Objective	Focused objective that states how employee will help company achieve its goals.	Focused objective that states what you want from the company.	No objective identified	
Education or Relevant Coursework	Contains complete information (listed in reverse chronological order) with relevant courses listed, dates formatted correctly, GPA listed in correct format (if appropriate), includes appropriate honors and awards.	Contains information (listed in reverse chronological order) with relevant courses listed, dates formatted correctly, may show gaps in work history; inappropriate GPA listed, includes appropriate honors and awards	Information not listed in reverse chronological order, important information missing, information not listed in correct format.	
Relevant Experience and Skills	Entries are listed in reverse chronological order; company name, title, location, and dates are included; strong action verbs used with correct verb tense; personal pronouns and extraneous words are omitted; bullets are concise, direct and indicate one's impact/ accomplishments; results are quantified; bullets are listed in order of importance.	Entries are listed in reverse chronological order; entries have a pattern of one type of error; action verbs are weak; verb tenses are inconsistent; bullets are not concise or direct and do not indicate impact; bullets are written in complete sentences.	Entries are not in reserve chronological order; most entries do not include company name, dates, location, or position title; bullets are written in complete sentences; verb tenses are inconsistent; bullets are wordy, vague, or do not indicate one's impact; results are not quantified when appropriate; irrelevant or outdated information is listed.	
Achievement and Honors	Appropriate and relevant achievements and honors listed; achievements and honors related to career goal; provides specific details; listed in reserve chronological order.	Appropriate and relevant achievements and honors listed; achievements and honors related to career goal; lacks specific details related to achievements and honors; listed in reserve chronological order.	Achievements and honors not listed in reverse chronological order; inappropriate or irrelevant achievements listed; no achievement or honors are listed.	
References	References Listed appropriate references and provided complete contact information for references.	References are listed, but not all may be appropriate or not all contact information for references is included.	Inappropriate references are listed; no references listed; no contact information listed.	
Spelling, Grammar, Punctuation	Spelling, grammar, and punctuation are extremely high quality with two or less errors in the document.	Spelling, grammar, and punctuation are adequate with three to five errors in the document.	Spelling, grammar, and punctuation are less than adequate with six or more errors in the document.	
Format and General Appearance	Does not exceed two pages without overcrowding; margins are acceptable; font size and style are readable (10-12 point); headings reflect content and content substantiates headings; resume is targeted to job.	Does not exceed two pages; appears overcrowded; margins are acceptable; font size and style are readable (10-12 point); headings don't necessarily reflect content and content substantiates headings; resume is targeted to job.	Exceeds two pages; margins are inappropriate; font style is unreadable; font size is too small or too large.	
TOTAL POINTS				

Supervised Agricultural Experience 1st Nine Weeks Guidelines & Rubric

Student Username: _____
Student Password: _____
Chapter Number: _____

Dear Student & Parent/Guardian:

The SAE project is an opportunity for your child to gain additional knowledge and hands-on skills. Each SAE project is uniquely designed by each student. Each student will keep records on the hours and provide pictures to document the work completed. These records are kept in the Agricultural Experience Tracker program. We encourage you to browse the website at www.theaet.com to become more familiar with the SAE project and the records your student will keep.

Basic SAE Selection

Name of Student: _____

Name of Agriculture Class: _____ Semester/Year: _____

Type of SAE Selected: (circle one)

Foundational Placement Entrepreneurship School-Based Experimental Service Learning

Number of Hours Required for Project: _____

Brief Description of Project: _____

Parent/Guardian & Student Approval of Project

Your signature indicates you have read the information above and understand the requirements of the Supervised Agriculture Experience project.

Parent/Guardian Signature: _____ Date: _____

Student Signature: _____ Date: _____

SAE Agriculture Experience Tracker 1st Nine Weeks Items to Complete		Due Date	Teacher Score
Profile: About You: Manage/Edit Personal Profile- <ul style="list-style-type: none"> Students update membership information, demographic information and mobile device set-up. Also enter FFA membership information if applicable. 			___/10
Profile: About You: Record your agriculture class schedule- <ul style="list-style-type: none"> Select and add the agriculture education class you are currently enrolled in. 			___/5
Profile: Your Activities: Develop your AET Experiences- <ul style="list-style-type: none"> Create a new SAE "experience" if you are a new agriculture education student. OR Update/Edit Experience if returning agriculture education student. 			___/10
Profile: Your Activities: Develop Your AET Experiences- <ul style="list-style-type: none"> Experiences Manager Select "Plan"- complete the following items: 			
1.	Description & Overview of SAE: Follow instructions provided.		___/25
2.	Estimated Investment of Time and Supervision: Follow instructions for completing information. See your agriculture education instructor for the minimum number of hours you must complete: Hour Requirement: _____		___/25
3.	Learning Outcomes: The student must provide a minimum of 3 goals for the project.		___/25
Journal: Time in AET Experiences <ul style="list-style-type: none"> Begin recording time and complete journal entries for all hours worked. The student must record hours within 1 week of completing the activity to received full credit. Every journal entry must include detailed grammatically correct information. 			
Pictures <ul style="list-style-type: none"> A minimum of 10 pictures are required for all SAE projects. For Improvement type SAE projects, the student must show before, during and after pictures. The student should be visible in all pictures and demonstrate skills and tasks directly associated with the project. All pictures are uploaded and presented in the Agricultural Experience Tracker program. 			
Profile: Resume Information <ul style="list-style-type: none"> EXTRA CREDIT- complete for extra credit points: 2nd nine weeks 			
Profile: Record school & community involvement activities. <ul style="list-style-type: none"> EXTRA CREDIT- complete if applicable. Counts towards extra credit points only. 2nd nine weeks. 			
1st Nine Weeks Total Points			___/100

Supervised Agricultural Experience 2nd Nine Weeks Guidelines & Rubric

Student Username: _____

Student Password: _____

Chapter Number: _____

All SAE project items are due: _____

Any items not completed by this date will receive a 10% per day penalty.

NO SAE projects will be accepted after: _____

Congratulations! You are now in the “completion phase” of the SAE project where the student will record all hours worked, take pictures of the project and complete journals to record the activities they have completed. Here are detailed instructions on how to complete items that are due for your SAE during 2nd Nine Weeks:

A. To fill in Learning Outcome Skills:

1. Log into www.theaet.com.
2. Click on the “profile” tab.
3. Click on “Develop your AET Experiences.”
4. Click on “plan” for the AET Experience you are completing this semester.
5. Click on the “Learning Outcomes” tab.
6. Write 5 skills you learned and/or observed for your SAE project this semester. These skills should be written under the 3 goals you wrote during the 1st nine weeks.
7. Skills must be “measurable” and written in complete sentences using correct grammar and punctuation to receive full credit:
 - i. Example of student skills that **WOULD NOT** receive full points:
 1. “Become a better person”
 2. “Learn how to plant things.”

B. To record time and journals in the AET Tracker:

1. Log into www.theaet.com.
2. Click on the “journals” tab in the middle of the page.
3. Click on “Time in AET Experiences.”
4. Fill in the date you completed hours.
5. Select the category that the hours apply to:
 - a. If you have more than one SAE experience, then select the one you are completing for this semester.
6. Name the activity. Ex: “Building fence braces.”
7. Select the “type” of experience.
8. Write a journal that describes what activities you completed that day. Be specific. Use correct grammar and punctuation to receive full points.
9. Record the number of hours you worked in the “outside class” box.
10. Select who supervised you for this activity.

C. To upload pictures in the AET Tracker:

1. Log into www.theaet.com.
2. Click on the "portfolio" tab on the left-hand side of the screen.
3. Click on "browse" and select the picture(s) you want to upload.
4. Click on "upload."
5. Once pictures are uploaded, click on "edit" and complete the following:
 - a. Fill in the date the picture was taken in the "date" box.
 - b. Name the picture in the "title" box.
 - c. Click on the "experience" box and select your current AET Experience.
 - d. Write a minimum of 2 sentences explaining what you are doing in the picture.
6. Click "save" when complete.
7. Remember:
 - a. The student must have 10 pictures to receive full credit for this portion of your SAE.
 - b. **For Improvement type SAE projects, the student must show before, during and after pictures.**
 - c. **The student should be visible in all pictures and demonstrate skills and tasks directly associated with the project.**

<p style="text-align: center;">SAE Agriculture Experience Tracker 2nd Nine Weeks Items to Complete</p> <p style="text-align: center;">ALL SAE ITEMS DUE: _____</p>	<p style="text-align: center;">Teacher Score</p>
<p>1st Nine Weeks Score: This score is generated from the 1st nine weeks of your project.</p>	<p style="text-align: center;">_____/10pts</p>
<p>AET Experience Learning Outcomes: During the 1st nine weeks, you wrote 3 goals you had for your project, now you need to write:</p> <ul style="list-style-type: none"> • 5 skills you learned and/or observed during the course of this project. • Skills must be written in complete sentences and use correct punctuation and grammar to receive full credit. 	<p>Skill 1: ____/5pts Skill 2: ____/5pts Skill 3: ____/5pts Skill 4: ____/5pts Skill 5: ____/5pts</p>
<p>Journals & Time Log:</p> <ul style="list-style-type: none"> • Students enter time and complete a journal for each time work is completed for your SAE project. • Students must record hours within 1 week of completing the activity to received full credit • Every journal entry must include detailed grammatically correct information. • You MUST complete a minimum of 15 hours to earn full credit. • Incomplete or missing journal entries associated with the time recorded WILL NOT count towards hours completed. • Students earn 3pts per hour completed and correctly recorded. 	<p style="text-align: center;">3pts per hour 15 hours required</p> <p style="text-align: center;">____ hours X 3 = ____/45pts</p>
<p>Pictures</p> <ul style="list-style-type: none"> • A minimum of 10 pictures are required for all SAE projects. • For Improvement type SAE projects, the student must show before, during and after pictures. • The student should be visible in all pictures and demonstrate skills and tasks directly associated with the project. • Each picture MUST have a 2-sentence caption describing the skill and/or activity the student is completing. • Each picture is worth 1 point for a total of 10 points. • Each caption is worth 0.5 points for a total of 10 points. 	<p style="text-align: center;">2pts per picture/caption</p> <p style="text-align: center;">____ captions X .5 = ____/10pts</p> <p style="text-align: center;">____ pictures X 1 = ____/10pts</p>
<p style="text-align: right;">2nd Nine Weeks Points</p>	<p style="text-align: center;">_____/100</p>
<p>Profile: Resume Information</p> <ul style="list-style-type: none"> • EXTRA CREDIT- students complete for up to 2 extra credit points. 	<p style="text-align: center;">+ ____/2pts</p>
<p>Profile: Record school & community involvement activities.</p> <ul style="list-style-type: none"> • EXTRA CREDIT- complete if applicable. • Students earn 0.25pts for each school & community involvement activity for a maximum of 2pts added to overall SAE score. 	<p style="text-align: center;">+ ____/2ts</p>
<p style="text-align: center;">SAE 2nd Nine Weeks Final Grade</p>	<p style="text-align: center;">_____/100</p>

SAE Project Proposal Sheet

Name: _____ Period: _____

The SAE (Supervised Agricultural Experience) is 30% of your final grade in this class. To receive an A you must put a minimum of _____ hours into your project. The SAE can be any project completed outside of class time that deals with agriculture (working with plant material, animals, or natural resources). Please be thorough in your planning of the project. You must obtain permission for your project from your instructor by using this proposal sheet and having your parent/guardian to sign the bottom.

This form is due on _____. You will be provided a record book once your project has been selected and approved. The first three or four pages of the record book will be due _____. The completed record book will be due _____.

(Due Today) Top two choices for my SAE project:

1. Type of SAE: _____

a. Project Description:

2. Type of SAE: _____

a. Project Description:

(Chosen Project is circled)

3. Timeline for Chosen Project:

Month 1	Month 2	Month 3	Month 4	Month 5

4. Parent/Guardian Approval Signature: _____ Date: _____

5. Student Signature: _____ Date: _____

5. ANIMAL BREEDS & TERMS (ES 3.00)

- a. Identify major livestock species by common/scientific names and by breed.
 - Create a slide presentation, website, or video displaying breed information, facts, and data for assigned animal breed.
 - Attend a local/area/state livestock show and journal about your experience. A minimum of 3 breeds and 2 species should be included.

- b. Demonstrate an understanding of animal nomenclature as determined by species, maturity, and sex.
 - Create a game or puzzle using common animal nomenclature terms.
 - Photograph at least 5 animals in your local area and record the animal species, breed, and sex.

Breed Assignment

For this assignment each student will work individually. You will be responsible for creating a slide show about a specific breed. This will be presented by you to the rest of the class. ***You are the teacher!*** Your presentations need to include the following information about your beef breed:

1. **Breed Name**
2. **Origin of the breed** (when and where)
3. **Characteristics of the breed** (color of coat & skin; polled or horned; frame size; approximate weights of males and females; climate considerations (heat and insect tolerance/cold hardy), if crossbred, mention breeds used to create yours)
4. **Main use** (meat, milk, or draft - note: you may notice some breeds are used for milk in one country and meat in another. Make sure to note where and how they are used in the U.S.)
5. **Pictures of the breed** (minimum of 2)
6. **Sources of Information** (listed on a separate slide at end of presentation)

Helpful websites for information: http://www.cattlepages.com/Breed_Associations/
<http://www.ansi.okstate.edu/breeds/cattle/>

Breed Assignment Rubric

Here is the rubric used to grade your presentations:

Slideshow: _____/60

- *Breed Name* _____/5
- *Origin of the Breed* _____/10
- *Characteristics of the Breed* _____/15
- *Main Use* _____/10
- *Pictures* _____/15
- *Sources of Information* _____/5

Presentation & Notes _____/40

- *Eye contact with class* _____/5
- *Voice* _____/5
- *Stance* _____/5
- *Appearance* _____/5
- *Notes Chart* _____/20

6. ANIMAL EVALUATION & SELECTION (ES 4.00)

- a. Demonstrate ability to evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth, and reproduction.
 - Participate in a local or state livestock evaluation event.
 - Present a set of oral reasons, from memory, to be evaluated by the instructor.
 - Interview a livestock judge from a local/area/state show to learn about their qualifications, skill set, education and why they became a judge.
 - Give a class presentation on desirable traits and industry preferences for specific livestock species and breeds.

Livestock Evaluation - Oral Reasons Rubric

	POOR 1-2 pts.	AVERAGE – 3-4 pts.	EXCELLENT – 5 pts.	SCORE
Knowledge	No specific criteria is used to describe how the class was placed. Criteria Examples: fat, lean, muscle, leg structure, capacity, etc.	Few specific criteria is used to describe how the class was placed. Criteria Examples: fat, lean, muscle, leg structure, capacity, etc.	Specific criteria is used to describe how the class was placed. Criteria Examples: fat, lean, muscle, leg structure, capacity, etc.	
Terminology	Little or no industry specific terminology is used.	Industry specific terminology is used, but is not used correctly.	Industry specific terminology is used correctly.	
Comparative Explanation	Comparative explanations of placings are NOT used.	Comparative explanations of placings are used.	Comparative explanations of placings are used, and are accurate.	
Logical Explanation	Explanation of the class placing is not logical, and did not give an analysis of current industry standards and values.	Explanation of the class placing is logical, but analysis was not relevant to current industry standards and values.	Explanation of the class placing was logical with respect to current industry standards and values.	
Correct Placing	Placing score of 25 or fewer pts.	Placing score of 26 to 39 pts.	Placing score of 40 to 50 pts.	
Presentation	Positioned more than 12 feet or less than 3 feet from the judge. Eye contact was rare or nonexistent.	Positioned 9 to 12 feet from the judge, or 5 to 3 feet from the judge. Eye contact was occasional.	Positioned 6 to 8 feet from the judge. Strong eye contact was maintained throughout the presentation.	
Delivery	Not Enthusiastic Weak voice Poor grammar Poor enunciation	Moderately Enthusiastic Average voice A few grammar errors Some misspoken words	Enthusiastic Strong voice Correct grammar Correct enunciation	
Appearance	Not Neat Not Well Groomed Poor Posture Not confident	Moderate	Neat Well-groomed Good Posture Confident	
Placing Structure	No comparisons of adjacent placings (pairs).	Some comparison between the placings.	Comparisons of top, middle, and bottom pairs.	
Length	less than 1 minute	Over 2 minutes	1 to 2 minutes	

7. ANIMAL GRADING AND QUALITY STANDARDS (ES 4.00)

- a. Demonstrate ability to classify cattle and swine into appropriate quality groups through the use of established United States grading criteria and standards.
 - Complete retail meat placing and assessment by placing 4 steaks or chops and answering questions quality questions about cuts.
 - Complete a cooking lab analyzing factors and compare taste, texture, tenderness of various quality grades.
 - Learn to use the ribeye area grid to find the ribeye area of a steak

- b. Demonstrate understanding of poultry quality factors by appropriately identifying ready-to-cook poultry carcasses into correct USDA grades.
 - Participate in the Poultry Evaluation CDE.
 - Demonstrate proper methods of cutting up a ready-to-cook chicken and create a poultry grading lab assignment.

Retail Meat Quality Assessment: (100 points)

1. Students will use the following Form to place four cuts from a class of:

Pork or Lamb – Loin Chops or Rib Chops; or Beef – T-bone steaks or Ribeye steaks

Use a Hormel Card to help determine Cuts and Final Scores. Max. 50 points.

PLACINGS CHECK	PLACING
1-2-3-4	A
1-2-4-3	B
1-3-2-4	C
1-3-4-2	D
1-4-2-3	E
1-4-3-2	F
2-1-3-4	G
2-1-4-3	H
2-3-1-4	I
2-3-4-1	J
2-4-1-3	K
2-4-3-1	L
3-1-2-4	M
3-1-4-2	N
3-2-1-4	O
3-2-4-1	P
3-4-1-2	Q
3-4-2-1	R
4-1-2-3	S
4-1-3-2	T
4-2-1-3	U
4-2-3-1	V
4-3-1-2	W
4-3-2-1	X

2. In addition, students will take notes on the four cuts in regards to marbling, external fat, and amount of bone. Without review, students will answer five questions worth 10 points each about the four cuts.

1. The chop/steak with the most external fat is: a. b. c. d.
2. The chop/steak that has the least bone is: a. b. c. d.
3. The chop/steak with the least marbling is: a. b. c. d.
4. The chop/steak with the best color is: a. b. c. d.
5. The largest of the four chops/steaks is: a. b. c. d.

Poultry Judging Video - <http://www.youtube.com/watch?v=TslGAJkZhiE>

Name: _____

Instructions: Complete the following worksheet while watching the video on how to judge USDA Ready to Cook Poultry.

1. What is the typical weight range of a poultry carcass? _____
2. What is the typical weight range of a turkey carcass? _____
3. List the 7 factors used to determine poultry grades:
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____

Cuts or Tears

4. What is the maximum amount of exposed flesh allowed on the breast or legs of USDA Grade A chicken?

5. What factor affects the amount of exposed flesh allowed on a carcass? _____
6. If a chicken has a cut or tear greater than ¼" what grade will that animal be assigned? _____
7. If the cut on any part of the bird is larger than 1/3 of the part, what grade is assigned? _____
8. How large can cuts or tears be on parts other than the breast and still receive a Grade A? _____

Discolorations

9. For a 2-6lb poultry carcass, list the carcass grade based on the size of the discoloration:
 - a. 1-2" discoloration: _____
 - b. 2-3" discoloration: _____
 - c. No limit: _____

Disjointed & Broken Bones

10. How many disjointed bones are allowed on a Grade A carcass? _____
11. What is an easy way to tell if the wing is disjointed on a poultry carcass? _____
12. What is an easy way to tell if a wing bone is broken on a poultry carcass? _____
13. If a carcass has one disjointed and one broken bone it will be graded as: _____

Missing Parts

14. A tail cut that is less than halfway to the hip joint is what grade? _____
15. A tail cut that extends beyond the halfway point to the hip joint is given what grade? _____
16. If entire wing is removed, what grade does the carcass receive? _____

Freezing Defects

17. Slight darkening on the back or drumstick is allowed on which carcass grade? _____
18. The carcass should be _____ in appearance.
19. The carcass can show clear _____ to _____ ice.

8. IMPACT OF ANIMAL AGRICULTURE (ES 5.00)

- a. Articulate the current trends and issues related to animal agriculture.
 - Evaluate current event articles that are related to animal science.
 - Complete an online scavenger hunt using animal commodities grown and produced in North Carolina.

- b. Demonstrate a thorough understanding of production methods, practices, and processing of products as related to beef, dairy, poultry, and swine.
 - Coordinate a field trip to a local animal production farm.
 - Arrange a visit from a mobile dairy classroom. Example: Southland Dairy

9. ANIMAL MANAGEMENT (ES 6.00)

- a. Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.
 - Use FAMACHA score to determine parasite-related anemia.
 - Maintain health of on-campus animals by doing daily visual appraisal.

- b. Demonstrate proper methods of animal handling and preventative maintenance procedures based on animal behavior and facility availability.
 - Use weight tape or scale to determine animal weights.
 - Perform tasks used as common husbandry techniques. Examples: haltering ruminants, snare restraint of a pig, trim hooves, castrate, dehorn, etc.

Animal ID# _____

Animal Daily Health Monitoring Program

Animal Information

Animal ID:	Intake Date:	Gender:	Age:
Color:	Breed:	Wt: kg	

WEEK 1

Day in Shelter	1	2	3	4	5	6	7
Date							
Location in Shelter							
Initials							
Attitude							
Vocalization							
URI Signs							
Eating							
Stool							
Urine							
Behavior/Aggression							
Location & Position							
Demeanor/Activity							

WEEK 2

Day in Shelter	8	9	10	11	12	13	14
Date							
Initials							
Location in Shelter							
Attitude							
Vocalization							
URI Signs							
Eating							
Stool							
Urine							
Behavior/Aggression							
Location & Position							
Demeanor/Activity							

#	Date	Note	Action Taken	By

Item	Descriptions of Options						
Attitude	B = Bright	Q = Quiet	D = Depressed				
Vocalization	0 = Quiet			W = Whine	P = Panting		
URI Signs	0 = No signs	S = Sneeze	C = Cough	ODC = Ocular Discharge		NDC = Nasal Discharge	
Eating	0 = None	+ = Some	++ = All				
Stool	0 = None Seen	N = Normal	D = Diarrhea	BD = Bloody Diarrhea			
Urine	0 = None Seen	+ = Some	++ = Lots	BU = Bloody Urine			
Behavior	F = Friendly	T = Timid	A = Aggressive	N = No interaction			
Location & Activity in Pen	F = Front	M = Middle	B = Back	S = Sit	L = Lie	P = Pace	J = Jump
Demeanor	C = Calm	E = Excited	T = Timid	S = Shaking		H = Hiding	

Common Husbandry Techniques

ADMINISTERING AN INTRAMUSCULAR INJECTION

Participant must talk through practicum steps.

Criteria	Points Possible	Points Earned
The student selected the proper site for administration.	10	
The student directs the needle through the skin and into the muscle.	10	
The student aspirates; if no blood is noted, injects.	10	
The student withdraws the needle and places in the sharps container.	10	
The student massages the area where the injection was given and praises the patient.	10	
TOTAL POINTS	50	

Common Husbandry Techniques

HALTERING RUMINANTS

Participant must talk through practicum steps.

Criteria	Points Possible	Points Earned
Without quick movements and loud noises, the student properly approaches the patient at a 45-degree angle to the patient's left shoulder.	5	
The student places crown piece of halter over ears, then slips nose through nosepiece.	6	
The student properly adjusts the halter such that the nose band crosses over bridge of nose halfway between the nostrils and eyes.	7	
The student ensures that the adjustable portion of the nose band is under the chin, not across the bridge of the nose.	6	
The student keeps the standing end or lead rope portion on the left side of the patient.	6	
TOTAL POINTS	30	

Common Husbandry Techniques

HALTERING A HORSE

Participant must talk through practicum steps

Criteria	Points Possible	Points Earned
Without quick movements and loud noises, the student properly approaches the patient at a 45-degree angle to the patient's left shoulder.	5	
The student places end of the lead rope over the horse's neck and passes sufficient length of lead to form a handheld loop around the horse's neck.	5	
Holding the handheld loop in his or her right hand, the student uses his or her left hand to slip the nose-band of the halter over the nose.	5	
Student releases the lead rope and with their right hand under the horse's neck, the student passes the crown strap over the head and behind the ears and attaches the end to the appropriate place on the halter.	5	
The student snaps the end of the lead to the lead ring of the halter and undrapes the lead rope from the horse's neck.	4	
The student adjusts the halter, so it is snug enough that the nose piece could not fall over the end of the nose but not so tight that the halter cuts or rubs the horse or restricts jaw movement or breathing.	6	
TOTAL POINTS	30	

Common Husbandry Techniques

SNARE RESTRAINT OF THE PIG

Participant must talk through practicum steps.

Criteria	Points Possible	Points Earned
The student, standing next to the patient, guides the loop of the snare into the mouth and over the nose or upper jaw.	4	
The student makes sure the loop is inserted far enough into the patient's mouth.	5	
The student pulls the loop tight when it is in the proper position.	5	
The student keeps the loop tight while moving to the front of the patient.	5	
The student maintains the pressure on the snare so that the patient cannot escape.	5	
The student keeps control of the patient until the patient ceases to struggle.	4	
The student releases the patient after the procedure is completed	2	
TOTAL POINTS	30	

Common Husbandry Techniques

ADMINISTERING A SUBCUTANEOUS INJECTION

Participant must talk through practicum steps.

Criteria	Points Possible	Points Earned
The student lifts the skin using the thumb and forefinger forming a triangle or tent with the skin.	10	
The student inserts the needle into the skin at the base of the tent or triangle parallel to the body.	10	
The student aspirates, looking for any signs of blood entering the syringe; if no blood enters the syringe, the student administers the injection.	10	
The student withdraws the needle and places in the sharps container.	10	
The student rubs the injection site and praises the patient.	10	
TOTAL POINTS	50	

10. ANIMAL FEEDS & DIGESTION (ES 7.00)

- a. Identify and formulate animal feeds based on nutritional requirements, using feed ingredients for maximum nutrition and optimal economic production.
 - Compare and choose animal feed based upon animal needs, stage of life and program budget.
 - Feed Creation Lab

- b. Explain mechanical and chemical digestive process of ruminant and monogastric systems; including equine and poultry.
 - Write a story as if the main character was food going through a digestive system.
 - Build a model of a digestive system.
 - Create a model of the digestive system of one species of livestock and video tape the narration of the process of feed as it travels through the model.

3-D Model of a Digestive System

You will be creating a 3D Model of one of the main types of animal digestive systems.

- ✓ The animal body does not necessarily have to be 3D, but the digestive system does
- ✓ Pretty much any material is acceptable as long as it will not spoil, or smell bad. The best materials are clay, play-dough, pipe cleaners, etc.
- ✓ Each “part” of the system should, be labeled or a color key provided.
- ✓ You will be graded on accuracy of system, detail and creativity.
- ✓ The body should be mounted on cardboard so that it could be hung-up around the room.
- ✓ Accompanying your 3D model should be a write-up that includes the following:
 1. List animals that have this type of system
 2. Recommended feeding instructions for an animal with this system
 3. List each “part” of the system and describe its responsibilities
 4. What are the advantages to this type of system?
 5. List the correct order of the “parts,” as food would move through them.

Grading:

Content

/50

Does the poster accurately represent the digestive system of the assigned animal?

Are all of the parts of the digestive system present?

Is each organ labeled?

Is each label accompanied by a description of its function?

Organization & Creativity

/10

How neat and orderly is the poster?

Were the students creative with their selection of the objects used to represent the organs?

Presentation

/15

Did the students show an understanding and knowledge of the material presented?

Was the material presented in a way that allows the audience to gain an understanding of the digestive system and how it functions? (engagement)

Did the students describe the function of each organ in the digestive system?

Total

/75

Comments:

Balancing Ration Lab

1. Balance a ration using the Pearson Square.
 - a. Feed requirements: 23% Protein and 1300 lbs. batch
2. Your feed options include

Feed Ingredients	Crude Protein	Cost
Corn	8.9%	.32
Wheat Straw	11.7%	.11
Soy Bean Meal	44.4%	1.02
Cotton Seed Meal	41.2%	.98
Granular Molasses	4.3%	.31
Wheat Grain	14.3%	.57

Show Pearson Square work Here:

Lbs. of ingredient #1: _____

Lbs. of ingredient #2: _____

Price per lb. of feed: _____

3. Design your feed "package". Use color and appealing imagery. Also make sure to include the following:
 - a. Feed Name
 - b. Ingredients
 - c. Feeding Directions and precautions
 - d. % protein
 - e. Retail Price

4. Blend and mix your feed.

- a. Divide the pounds of each feed ingredient by 100 and list answers on the following lines:

1. Feed ingredient one: _____(grams)

2. Feed ingredient two: _____(grams)

- b. Place an empty container on the scale and press Tare to "zero it out"
- c. Add feed ingredient one to your cup until you reach the correct amount in grams.
- d. Repeat step **c** for feed ingredient two.
- e. Mix your feed ingredients together.
- f. Answer the following questions.

1. What two ingredients did you use? _____

2. Does your feed smell and seem appealing? _____

3. Why is palatability important when feeding animals?

4. What do you think could be done to improve palatability?

11. ANIMAL REPRODUCTION (ES 8.00)

- a. Understand reproductive management terminology, parts and functions of the reproductive systems of livestock and poultry, and how age, size, maturity level and health status affect the reproductive efficiency of male and female animals.
 - Maintain an on-campus animal facility and breeding program.
 - Partner with local producers to determine factors they use in breeding programs on their farm.
 - Use EPDs to choose animals for breeding.

Using EPD's to choose Animals for Breeding

A NC cattle producer who operates a cow-calf operation seeks a variety of bulls for mating decisions. The cow herd is Angus based with low percent influence from Beefmaster and Hereford genetics. Mature cow size is 1100 pounds and are typically big bodied, easy fleshing. Select the best breeding decision from the information provided in the chart below for question 1-5.

Ind.	Breed	BW EPD	WW EPD	YW EPD	Milk EPD	Marbling EPD	REA EPD
A	Angus	-1.7	36	70	33	.77	.44
B	Angus	-.04	45	60	23	.61	.55
C	Angus	5.0	40	90	13	.46	.67
D	Angus	1.8	58	89	22	.62	.58

Breed Average .9 50 89 24 .51 .47

1. Which bull would you expect to produce the poorest milking daughters?
2. Which bull would concern you the most when labor is limited during calving season?
3. Which bull would be the best choice on first calf heifers and would best fit the scenario where daughters in lactation are pastured where feed is limited?
4. Which Bull has the most balanced EPD data and is suitable to use on mature cows?
5. Which bull would sire calves that should grade choice in fewer days on feed?

Scenario:

This FFA member has an extensive swine entrepreneurship SAE. She has twenty-five sows of various breeds to meet the demands of her customers and show seasons. She purchases semen from a leading boar stud station to properly mate sows to the most appropriate sires for the desired progeny. Please assist her with the breeding decisions by selecting the best mating for each sow from the list of boars provided below.

BOAR	Breed	NBA	Days to 250	BF	LEA	DAM'S SPI
A	Hampshire	12	155	.68	8.9	120
B	Hamp X York	11	160	.65	10.5	115
C	Duroc	8	150	.70	11.0	104
D	Yorkshire	13	170	.65	9.0	110

1. Sow 4-5 is a purebred Yorkshire. She is average muscle but very sound and good structured. The goal in this mating is to generate functional F1 replacement gilts that would be fast growing and exhibit hybrid vigor. Prolificacy and fleshing ability traits are important. Many of these daughters would be retained. Select the best boar.
2. Sow 13-1 is broken belted and Hampshire influenced. She reached 250 lbs. in 168 days. She is best mated to terminal sires that are heavy muscled, yet still meet the demands of carcass quality. It is unlikely that daughters would be retained from this sow.
3. Sow 2-2 is white and heavily Landrace influenced. She is very good in her skeletal design in terms of soundness and mobility. Unfortunately, this sow measured 1.1 BF at 265 lbs. with an 8.0 LEA. The next generation must be homozygous for color, leaner and heavier muscled. All progeny will be sold private treaty for home processing.
4. Sow 20-9 is the Champion Duroc Gilt from the NJSA show in 2016 held in Perry Georgia. She was purchased for a record selling price. This gilt took 146 days to reach 250 lbs. Her Dam's SPI was recorded at 113 and she was from a outstanding litter of 11. Judges did criticize her for having too much condition. Breeders from the Midwest have called inquiring about purchasing potential boar stud prospects to fit their purebred operations. To produce offspring that meet the demands which boar is most suitable?
5. Sow 4-10 is a great one! Each farrowing she deliveries. 4-10 is a Hampshire so that is good structured and above average in muscle (9.6 LEA). She tends to be leaner than current trends demand. This mating will result in crossbred progeny that will be exhibited at the Georgia National Fair and at the State Livestock show and would be expected to be highly competitive. The top daughters will be retained. What boar would you recommend?

12. ANIMAL GENETICS (ES 8.00)

- a. Identify the different parts and functions of animal cells and demonstrate an understanding of the processes of mitosis and meiosis.
 - Create a model of a cell.
 - Utilize cellsalive.com to instill a better understanding of the parts of cells and how they work.
- b. Compare and contrast the differences in dominant and recessive genes and demonstrate an understanding of heritability comparisons for important livestock traits.
 - Maintain an animal breeding program and allow students buy-in on which animals should be mated for optimum output.
 - Use Punnett Squares to predict genotypic and phenotypic outcomes.

Constructing an Animal Cell Assignment

Objective: Create a three-dimensional model of an animal cell. The cell should depict all of its structures, as listed below.

- Nucleus
- Nucleolus
- Cytosol
- Cytoplasm
- Centrosome
- Centriole
- Golgi
- Lysosome
- Peroxisome
- Secretory Vesicle
- Cell Membrane
- Mitochondria
- Vacuole
- Smooth Endoplasmic Reticulum
- Rough Endoplasmic Reticulum
- Ribosomes
- Cytoskeleton

1. Find a picture of an animal cell in your textbook or on the internet. Select a large cell in color that makes the cell parts easy to identify.
2. Brainstorm items that you can use to illustrate each of the structures. Think of household items that are similar in appearance to the actual cell parts.
3. Decide how big of a model you will make. Remember that the larger the model, the easier it is to see the parts.
4. Gather possible materials for the cell parts. Bring them in to school, so you can work on the model during class. Examples might be a rubber band ball for the nucleus or a bowl for the cell membrane. Try to use common items found around your house, so you do not need to buy expensive materials. Nothing will be provided for you.
5. Build the model. Use glue to make it permanent. Add labels for each part. Paint, use markers, or attach construction paper to add contrast between the various structures.
6. Turn in a typed report that includes the following information:
 - a. What each part of the cell is
 - b. What you've used to represent it
 - c. The functions of each part

Goat Mendelian Genetics Worksheet

by C Kohn, WUHS



Group Names: _____ Hour _____ Date: _____

Date Assignment is due: _____ Why late? _____ Score: + ✓ -
Day of Week Date If your project was late, describe why

Directions: Use two pennies (*or Rock, Paper, Scissors*) to determine the genotype and phenotype of your goat. Each gene mentioned in this lab is a simply inherited trait, meaning every goat has only two alleles for that trait. For each trait, you will flip two coins. Each coin represents an allele. Heads on each coin represents an allele for the dominant trait and tails represents the recessive allele. For example, if you got heads on one coin and tails on the other, your goat would be heterozygous for that trait. If you got tails on both coin-flips, the goat would have the recessive phenotype for that trait. Perform two coin flips for each trait and record the genotype of your goat for each trait. Then record the phenotype created by the genotype. Finally, draw your goat created by its genotype and phenotype and answer the questions in back.

Traits:

- Horns: Dominant: no horns (polled); Recessive: horns
- Wattle (lobe found on the neck): Dominant: wattle; Recessive: no wattle
- Hair: Dominant: long hair; Recessive: short hair
- Ears: Dominant: long ears; Recessive: short ears
- Behavior: Dominant: Nervous; Recessive: Docile (tame)
- Markings: Dominant: Alpine; Recessive: Solid colored

1. **Horns:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: HH Hh hh Phenotype: _____

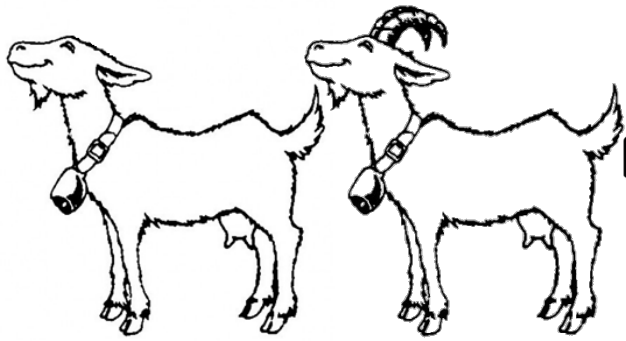
2. **Wattle:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: WW Ww ww Phenotype: _____

3. **Hair:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: LL Ll ll Phenotype: _____

4. **Ears:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: EE Ee ee Phenotype: _____

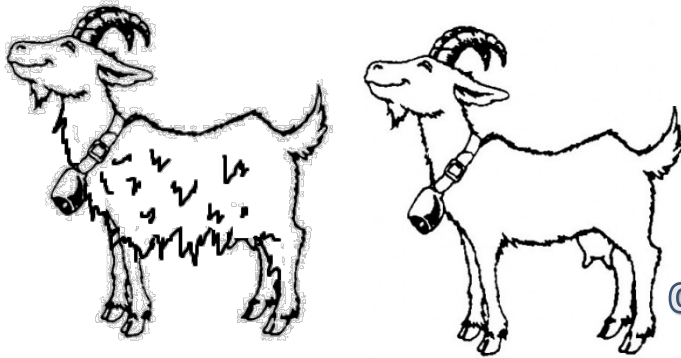
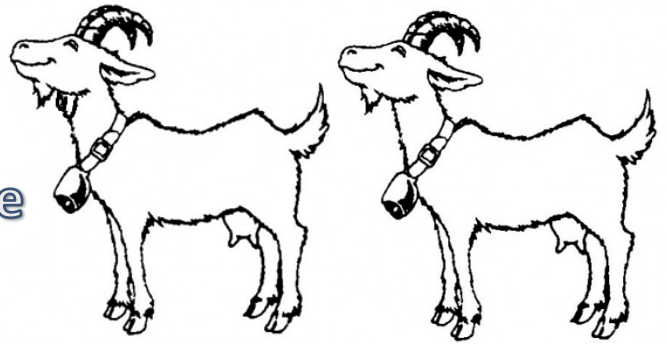
5. **Behavior:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: BB Bb bb Phenotype: _____

6. **Markings:** Coin 1: Heads Tails Coin 2: Heads Tails
Genotype: MM Mm mm Phenotype: _____



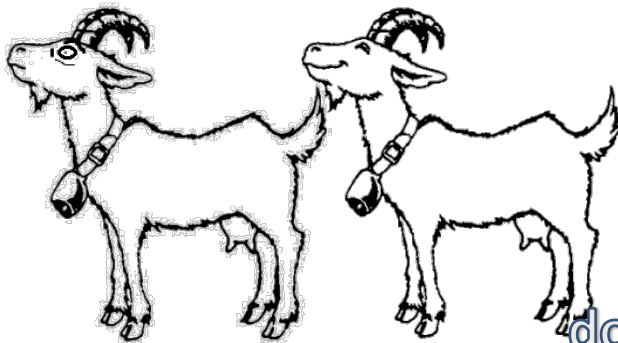
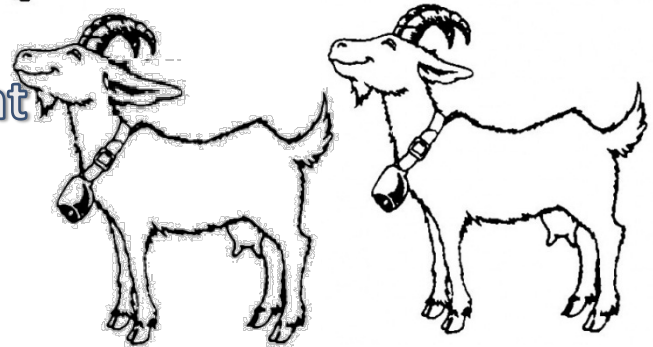
No horns (polled) is dominant to horns

Wattle (on neck) is dominant to no wattle



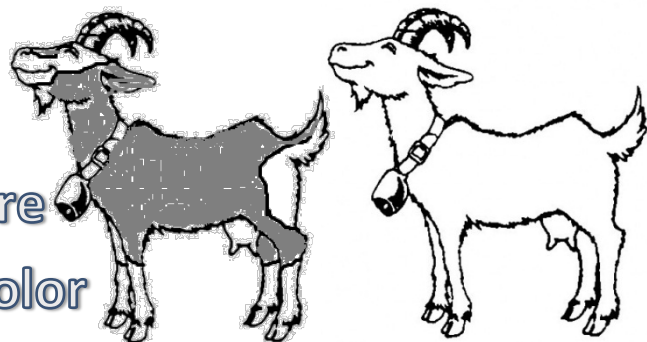
Long hair is dominant to short hair

Long ears are dominant to short ears



Nervous behavior is dominant to docile behavior

Alpine markings are dominant to solid color



7. Describe your goat before based on the six traits you flipped for.

8. Draw your goat below.



9. Next, identify three traits that you think are most valuable in your goats and list them below:

Trait _____

Trait _____

Trait _____

NOTE: these can be any of the six traits; for example, if your goats are docile, this might help them to sell as pets. If your goats have long hair, they might sell well for making fabrics. Pick three traits that make your goats the most valuable for production traits or sale value.

10. After each trait above, state whether it is dominant or recessive.

11. Next, choose another person's goat to mate with. List the genotypes and phenotypes for your goat's mate below for all six traits:

Phenotype _____ Genotype _____

Phenotype _____ Genotype _____

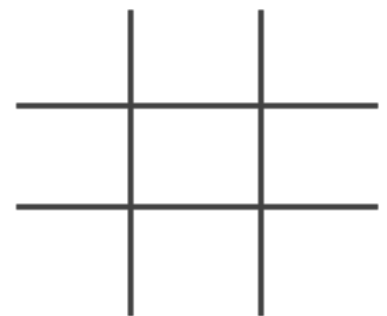
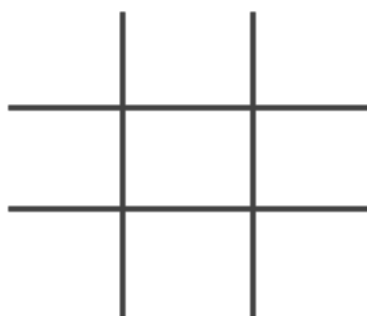
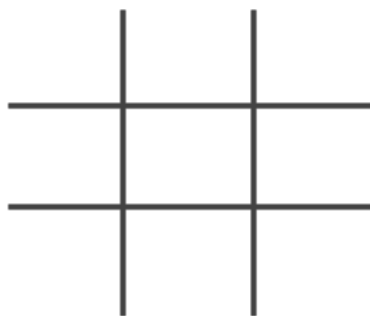
Phenotype _____ Genotype _____

Phenotype _____ Genotype _____

Phenotype _____ Genotype _____

Phenotype _____ Genotype _____

12. In the space below, do a Punnett Square for the three traits you chose above. Use the genotype of your goat and the genotype of the mate of your goat (a goat from another group).



13. In the space below, describe what the offspring of your goat pair will most likely look like.
