

Activity 9.2.1 Selecting the Best

Purpose

Animal producers must have the ability to evaluate animals based on their economic and reproductive potential for a successful operation. Conformation is the best way to evaluate an animal overall. How an animal looks from the outside as a whole describes conformation. Producers evaluate several priorities when considering an animal's conformation. A few common priorities are muscularity, balance, breed character, structure, and condition. Depending on the use of the animal, these priorities have different rankings. For instance, a producer will consider the muscularity of a meat animal more so than its balance. If a producer is replacing breeding stock, breed character is an important priority over other characteristics.

In the animal industry, you will use the ability to use criterion-based selection often. Judges at animal shows rank animals by a list of prioritized criteria. Can you train your eye to select the best given specific parameters?

Materials

Per group of four students:

- 4 differing styles of one object
- 4 note cards
- Computer with Internet access
- *Activity 9.2.1 Criteria Guide*

Per student:

- Pencil
- *Agriscience Notebook*

Procedure

You will select objects based on a defined set of criteria. Your teacher will assign you to a group of four students for this activity.

Part One – Developing Criteria

1. As a group, select a common object that has significant differences based on the preferences of an individual, such as a cell phone or tennis shoe.
2. Develop a set of five priorities for the object and a ranking of the traits exhibited for each priority.
3. Complete *Activity 9.2.1 Criteria Guide* to display your priorities. See Figure 1 as an example for a criteria guide developed for writing utensils.

Importance of trait	Importance of Priority			
	High			Low
	Shape	Ink Color	Material	Texture
High	Round	Blue	Plastic	Smooth
↓	Octagon	Black	Metal	Rippled
	Square	Red	Wood	Bumpy
Low	Triangle	Green	Paper	Scratchy

Figure 1. Sample Criteria Guide

4. Gather four examples of your object that demonstrate differences in the priorities you have developed. Use note cards to number each item.
5. Describe the ideal object based on your group's criteria.
6. Describe each item as it compares to the ideal.
7. Determine how you would rank them from best to worst based on the criteria you and your group have determined. Record your group's ranking of your objects in Table 1 of *Activity 9.2.1 Student Worksheet*. This will be used as the official ranking.
8. Display your criteria guide next to the items you have for evaluation.

Part Two – Evaluation

1. Your teacher will instruct your group to rotate through the stations set up by each group.
2. At each station, use the criteria guide provided to describe and rank the items from best to worst. Remember this is based on the criteria provided, not on your personal preferences. Record your work in Table 2 of *Activity 9.2.1 Student Worksheet*.
3. After you have worked through every station, your teacher will ask each group to present their official ranking.
4. When it is your group's turn, share your ranking.

Part Three – Animal Conformation

1. Your teacher will share PowerPoint® *Animal Conformation*.
2. Use *Presentation Notes* pages to record the information presented.
3. Add the note pages to your *Agriscience Notebook*.

Part Four – Application to Animal Selection

1. Your group manages breeding females for any livestock specie of your choice. Your primary goal for these females is to produce offspring that will be productive, sound and valuable.
2. Research industry-based criterion for your species and develop a list of three to five criteria you might use to select females to add to your enterprise. Record your list of criteria in Table 3 of *Activity 9.2.1 Student Worksheet*.
3. You may refer to sites such as Kansas State University's [Livestock Judging Guide for 4-H Members](#) or University of Kentucky's [Agripedia Livestock Judging site](#).
4. Rank the criteria your group selected in order of importance from highest to lowest and describe the ideal female characteristics for each criteria in Table 4 of *Activity 9.2.1 Student Worksheet*.

Conclusion

1. Why might you evaluate items differently than another person?
2. What are three to four consumer goods you could purchase using criterion-based selection?
3. Why do you think that selecting animals based on criteria is important in the agricultural industry?
4. List two to three criteria that may be used in evaluating market animals of any species.
5. How might criteria for breeding females differ from criteria for market animals?

Name: _____

Activity 9.2.1 Student Worksheet

Table 1. Official Ranking

Group Object
Description of Ideal
Description of Item 1
Description of Item 2
Description of Item 3
Description of Item 4

Official Ranking of Group Objects

	1st Place		2nd Place		3rd Place		4th Place
Item Number							

Table 2. Object Evaluation

Object _____ Description of Ideal				Object _____ Description of Ideal			
Comparison to Ideal				Comparison to Ideal			
#1				#1			
#2				#2			
#3				#3			
#4				#4			
Ranking of Objects				Ranking of Objects			
1 st Place	2 nd Place	3 rd Place	4 th Place	1 st Place	2 nd Place	3 rd Place	4 th Place

Object _____ Description of Ideal				Object _____ Description of Ideal			
Comparison to Ideal				Comparison to Ideal			
#1				#1			
#2				#2			
#3				#3			
#4				#4			
Ranking of Objects				Ranking of Objects			
1 st Place	2 nd Place	3 rd Place	4 th Place	1 st Place	2 nd Place	3 rd Place	4 th Place

Table 3. Criteria

Species	
Criteria ideas	

Table 4. Ranked Criteria

	Ranked Criteria	Ideal characteristics
Criteria 1		
Criteria 2		
Criteria 3		
Criteria 4		
Criteria 5		