Instructional Scenario
Feed Conversion Ratio for Calves

Course/Duty Area: Biological Application in Agriculture/Understanding Fundamentals of Animal Nutrition

Scenario: You are an animal expert. A producer has three calves and wants to evaluate how efficiently she is meeting their nutritional needs. You decide to look at the feed conversion ratio (FCR), the weight of feed intake divided by the weight gained by the animal, for each of the animals.
Calculate the FCR for the three animals listed below. Determine which animals are the more efficient producers. The animals were fed for 90 days.

Calf	1	2	3
Starting Weight	500	450	525
Final Weight	650	625	625
Pounds of feed Consumed	1500	1500	1600

Big Question: What are the potential benefits of tracking FCR?

Focused Questions:

- How does tracking FCR help producers?
- Are high or low FCR numbers good? Why?
- What should a producer do if animals have a poor FCR?
- How does FCR compare to average daily gain (ADG)?

Student Project or Outcome:

The student will document the FCR for each animal and identify the most efficient and profitable animal for a producer. The student will provide a list of steps the producer could take to improve the FCR for the animals.

Project-Based Assessment: Use the Farmbrite calculator to view the correct answers.

Teacher Resources:

- Farmbrite Calculator
- Nutrient Requirements of Beef Cattle, Merck Veterinary Manual

Scenario submitted by Herb Hoffeditz, Broadway High School, Rockingham County Public Schools