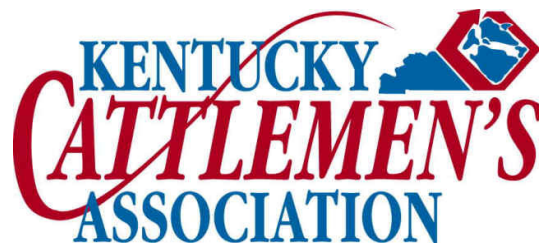


CASH COW



**A Lesson on the Risks and Rewards
of the Farming Business
Grades 3+**



*Kentucky Agriculture &
Environment in the Classroom, Inc.*



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Environment in the Classroom, Inc.

www.teachkyag.org

This learning activity was commissioned by the Kentucky Beef Council and the Kentucky Cattlemen's Association.

Kentucky Academic Standards

SCIENCE

- Interdependent Relationships in Ecosystems
- Inheritance and Variation of Traits: Life Cycles and Traits
- Structure, Function, and Information Processing
- Matter and Energy in Organisms and Ecosystems
- Human Impacts

SOCIAL STUDIES

Economics

VOCATIONAL STUDIES

2.36

MATH

OA, NBT

Grade 3 students will need assistance with calculations

Cash Cow

Grade Level: 3-8 and High School
Enrichment

Estimated Time: 45 to 60 minutes

Purpose

Students will:

- Learn the risk and opportunities in owning a beef cattle farm (a business).
- Learn the needs of beef cattle.
- Learn how weather and climate affect available resources and organisms in an ecosystem.
- Use addition, subtraction, and multiplication to calculate income.

Materials

- Station signs (10)
- Dice (10)
- Budget Sheets (1 per student)

Before You Begin

Have a conversation with students about being a beef cattle farmer. Tell them the things you need to have and know to conduct your business. Talk about the risks of having a beef cattle farm, such as weather, disease, pests, markets, etc. You can give specific examples.

Explain to students that they will get to have their own Cow/Calf beef farm, where they will care for 100 cows in hopes of selling their calves when they are weaned. Many things can happen on the farm, however, that will affect how much money they will make a sale time. Students will move to different stations around the room and roll a dice to learn their farming fate. Each student will also start with \$10,000 in cash to help with any expenses.

Rules of Play

1. Place the 10 station signs around the room, evenly spaced. You may tape them to the wall, or place them at different tables/desks.
2. Provide each student a budget sheet and a pencil.
3. Place 2 to 3 students at each station. This is their first station.
4. Each child will take a turn at rolling the dice and following the instruction for the number they roll. They will be asked to add or subtract from the COWS/CALVES column or the CASH column.
5. Give them 3 minutes at each station. They should calculate their total in the boxes with an "=" before moving to the next station. You may speed up the time as they catch on.



6. Walk around the room and help if a student has a question. Grade 3/4 students may need to be reminded to keep their numbers aligned the correct place values.
7. Move the groups around the room clockwise. The game ends when students have visited all 10 stations.
8. When they are finished, they should multiply their COWS/CALVES column by \$100 (profit per calf), which represents their SALES. You may need to help Grade 3/4 students.
9. They will then add their SALES to their CASH column. The highest GRAND TOTAL WINS.
10. Agriculture students may be provided a feeder calf price per head based on current market prices per pound (550 lb. avg.). They must then subtract \$585 in costs, which represents the average expense per cow. (*Estimated Returns to Fall Calving Cow-Calf Operation: Spring 2018*, Kenny Burdine And Greg Halich, University Of Kentucky)

Assessment

Ask the students the following questions:

- What are some things that caused a decrease in cow numbers?
Disease, predators, selling cows, natural disasters.
Which of those things can farmers control?
- What was the only thing that increased your calf numbers?
Twins...or buying more cows. You have to pay for more cows, however.
- What things caused increases in cash?
- What things caused cash losses?
- What do you think about cattle farming?

KyAEC modified a lesson of the same name from Maryland teacher Kate Tummino to focus on beef cattle production in Kentucky.



CASH COW BUDGET SHEET

Visit each station and roll the dice. Follow the directions by adding or subtracting to the columns below. Go ahead and figure your totals for each turn. Follow the directions at the bottom when you are finished visiting each station.

STATION	COWS/CALVES	CASH
	100	\$10,000
STATION 1	+/-	+/-
	=	=
STATION 2	+/-	+/-
	=	=
STATION 3	+/-	+/-
	=	=
STATION 4	+/-	+/-
	=	=
STATION 5	+/-	+/-
	=	=
STATION 6	+/-	+/-
	=	=
STATION 7	+/-	+/-
	=	=
STATION 8	+/-	+/-
	=	=
STATION 9	+/-	+/-
	=	=
STATION 10	+/-	+/-
	=	=
SALE TIME - You will earn \$100 profit for every calf you raised.	X \$100	+ \$
	= \$	SALES
	SALES	= \$
		GRAND TOTAL

Move your "SALES" number in the COWS/CALVES column to the "SALES" box in the CASH column to figure your GRAND TOTAL.



Improve Your Herd

Roll the dice and follow the instructions for the number you roll:

1 - Buy 5 new cows. Add 5 to the COWS/CALVES column. Subtract \$8,000 from your CASH column.

2 - Buy a new bull. Subtract \$3,000 from your CASH Column

3 - Sell 3 older cows. Subtract 3 from the COWS/CALVES column. Add \$3,000 to your CASH Column.

4 - No change. You like your herd the way it is.

5 - Sell 4 champion heifers. Subtract 4 from the COWS/CALVES column. Add \$10,000 to your CASH Column.

6 - Buy 2 new cows. Add 2 to the COWS/CALVES column. Subtract \$3,200 from your CASH column.



Weather

Roll the dice and follow the instructions for the number you roll:

1 - Too hot and dry, so you need to buy hay in the summer. Subtract \$2,000 from your **CASH column.**

2 - Perfect crop season and you are able to sell extra hay. Add \$1,500 to your CASH column.

3 - You lost 2 cows due to a flash flood. Subtract 2 from the **COWS/CALVES column.**

4 - Fair weather. No change.

5 - A lightning strike killed 5 cows standing under a tree. Subtract 5 from the **COWS/CALVES column.**

6 - Great weather increased the grain supply and reduces your feed prices. Add \$1,000 to your **CASH column.**



Soil & Water

Roll the dice and follow the instructions for the number you roll:

1 - Add fertilizer to improve your pasture. Subtract \$1,500 from your CASH column.

2 - Save on water expenses by digging a well. Add \$1,000 to your CASH column.

3 - Win a state Conservation Award. Add \$10,000 to your CASH column.

4 - Reseed your pasture to improve your pasture. Subtract \$500 from your CASH column.

5 - Add rock and trees to protect the stream that runs through your farm. Subtract \$2,000 from your CASH column.

6 - Hire a pasture consultant. Subtract \$1,000 from your CASH column.



Herd Health & Pests

Roll the dice and follow the instructions for the number you roll:

1 - Vaccinate your cattle. Subtract \$1,000 from your CASH column.

2 - Two cows get tangled in a fence and need stitches. Subtract \$250 from your CASH column.

3 - Veterinarian makes a visit. Subtract \$500 from your CASH column.

4 - Calves get sick with Scours (diarrhea). Subtract \$2,000 from your CASH column.

5 - Buy fly and parasite control. Subtract \$500 from your CASH column.

6 - A rare disease kills 2 of your cows. Subtract 2 from the COWS/CALVES column.



Calving Station #1

Roll the dice and follow the instructions for the number you roll:

1 - TWINS! 4 cows have sets of twins. Add 4 to the COWS/CALVES column.

2 - COYOTE! Subtract 2 from your CALVES column.

3 - WINTER STORM. Subtract 3 from the COWS/CALVES column.

4 - TWINS! 3 cows have sets of twins. Add 3 to the COWS/CALVES column.

5 - TWINS! 2 cows have sets of twins. Add 2 to the COWS/CALVES column.

6 - BLACK VULTURES! Subtract 4 from the COWS/CALVES column.



Farm Expenses

Roll the dice and follow the instructions for the number you roll:

- 1 - Hire someone to feed the cows while you are vacation. Subtract \$250 from your CASH column.**
- 2 - Buy herd insurance. Subtract \$1,000 from your CASH column.**
- 3 - Construct a new hay shed. Subtract \$5,000 from your CASH column.**
- 4 - Someone ran their car through your fence. Subtract \$1,500 from your CASH column.**
- 5 - Buy two llamas to help protect your calves. Subtract \$500 from your CASH column.**
- 6 - Buy new watering troughs and freeze protection. Subtract \$1,000 from your CASH column.**



Feed and Nutrition

Roll the dice and follow the instructions for the number you roll:

- 1 - Shortage of hay causes the price to go up. Subtract \$500 from your CASH column.**
- 2 - Purchase vitamin and mineral blocks. Subtract \$250 from your CASH column.**
- 3 - Attend a nutrition seminar. The new methods increases your herd's weight gain. Add \$1,000 to your CASH column.**
- 4 - Perfect weather reduces your hay costs. Add \$1,500 to your CASH column.**
- 5 - Sell your extra hay. Add \$500 to your CASH column.**
- 6 - Reseed your pasture to improve your pasture. Subtract \$500 from your CASH column.**



Marketing

Roll the dice and follow the instructions for the number you roll:

1 - Provide farm tours for school children and tourists. Add \$1,500 to your CASH Column.

2 - Sell beef to local customers. Add \$2,000 to your CASH column.

3 - Buy an ad in the newspaper. Subtract \$250 from your CASH column.

4 - Sell tickets for people to visit your corn maze. Add \$2,500 to your CASH column.

5 - Sell tickets for a dinner on your farm. Add \$1,000 to your CASH column.

6 - Sell your champion bull at an auction. Add \$8,000 to your CASH column.



Supply and Demand

Roll the dice and follow the instructions for the number you roll:

1 - More people are eating beef. Add \$2,000 to your CASH column.

2 - Cattle diseases reduces beef herds, and supply is down. Add \$3,000 to your CASH column.

3 - Market is stable. No change.

4 - An article in a national magazine says beef is not a healthy choice and demand is down. Subtract \$2,500 from your CASH column.

5 - Great weather and lower feed prices cause farmers to raise more cattle, but demand has not increased. Subtract \$1,500 to your CASH column.

6 - People in Asia want to eat American beef, and demand is higher. Add \$3,000 to your CASH column.



Calving Station #2

Roll the dice and follow the instructions for the number you roll:

1 - DISEASE. Subtract 5 from the COWS & CALVES column.

2 - TWINS! 4 cows have sets of twins. Add 4 to the COWS/CALVES column.

3 - BLACK VULTURES! Subtract 4 from the COWS/CALVES column.

4 - LOST CALVES. Subtract 2 from the COWS/CALVES column.

5 - TWINS! 3 cows have sets of twins. Add 3 to the COWS/CALVES column.

6 - TWINS! 2 cows have sets of twins. Add 2 to the COWS/CALVES column.