

Lesson Objectives

- Explore the causes of the “fence crisis” on the Great Plains
- Develop a budget for a homesteading family that includes wood fencing
- Examine the impact of the invention of barbed wire on the “fence crisis”
- Create an advertisement for barbed wire explaining how it can solve the “fence crisis”

Suggested Grade Levels

4-7

Time Frame

Approximately three 45-minute periods

National Standards for History

U.S. History Standards
Era 4 (1801-1861), Standard 2E
Era 6 (1870-1900), Standard 1C
(See Appendix)

Principles and Standards for School Mathematics

Problem Solving: Pre K-12
Connection: Pre K-12
(See Appendix)

Handouts

- Quotation from *The Young Farmer’s Manual* (1 overhead)
- Great Plains Map (1 overhead)
- Great Plains Photo (1 overhead)
- Quotation by U.S. Agriculture Commissioner (1 overhead)
- Homesteader’s Budget Worksheet (1 copy per student)
- Barbed-Wire Advertisement (1 overhead)
- Barbed-Wire Budget Worksheet (1 copy per student)

Supplies

- Calculators (optional)
- Art supplies

The Great Fence Crisis

Background for Teachers

The invention of barbed wire facilitated the expansion of farming on the Great Plains. By calculating two household budgets—one for a homesteading family using wood fencing and the other for a family using barbed-wire fencing—students will learn how barbed wire helped solve the “fence crisis.”

Setting the Stage

1. Show overhead of the *Quotation from The Young Farmer’s Manual*. Ask students to identify the source of the quote and when it was written. Ask students: *What does the author of this quote mean? Why does he think fences are so important for a farm? Discuss the importance of keeping animals and crops separated.*
2. Tell students: *American farmers had been building fences for over 200 years to keep crops and animals separate. Everybody assumed fences should be a part of every farm. Many communities had laws that required farmers to maintain their fences in good condition. But when farmers moved onto the Great Plains after the Civil War, many of them couldn’t build fences. What was different about the Great Plains? Why couldn’t farmers build fences there? We’re going to investigate the “Great Fence Crisis” to solve this mystery.*

Lesson Procedure

1. Show overhead of the *Great Plains Map*. Ask students to identify the states that comprise the Great Plains. Show overhead of *Great Plains Photo*. Ask students to examine the photo and share ideas about why fence building was difficult on the plains. Show overhead of *Quotation by U.S. Agriculture Commissioner* and discuss it as a class. Explain that almost all wood for fences on the Great Plains had to be shipped by train from the East and even this wood was growing scarcer and more expensive.
2. Give each student a copy of the *Homesteader’s Budget Worksheet*. Explain that a homesteader was a person who created a new farm on a piece of land from the government. Divide students into groups of two or three. Each group will imagine it is a family planning to start a homestead on the Great Plains. Each group will need to decide how many people are in their family.
3. Review the instructions on the *Homesteader’s Budget Worksheet* and assign groups to create a budget by completing the worksheet. Tell students whether you want them to use calculators or do the calculations on paper.

4. After groups finish their budgets, discuss them as a class. Ask students: *How did the cost of fencing affect your budget? Would you decide to be a homesteader with this budget? Why or why not?*
5. Show overhead of the *Barbed-Wire Advertisement*. Explain that the “Great Fence Crisis” was resolved by the invention of barbed wire which became widely available in the late 1870s. It was made in large quantities in factories and shipped via railroad to farmers. Have students examine the advertisement. Ask students: *According to this ad, what are some of the advantages of barbed wire?*
6. Distribute a copy of the *Barbed-Wire Budget Worksheet* to each student. Review the instructions and assign groups to recalculate their homestead budget using barbed wire. Ask students: *What difference did barbed wire make in your budget? Would you choose to start a farm on the Great Plains with this budget? Why or why not?*

Student Product

Note: This assignment can be done by individuals or in pairs.

1. Tell students: *Imagine you work for a barbed-wire company in the late 1870s. You need to tell farmers on the Great Plains and families thinking about homesteading about the advantages of barbed wire. Create an advertising poster that explains how barbed wire can solve the “Great Fence Crisis.”* Their posters should include pictures as well as text.
2. Submit students’ barbed-wire advertising posters to your *Between Fences* hosts for inclusion in the local exhibition.

Lesson Extension

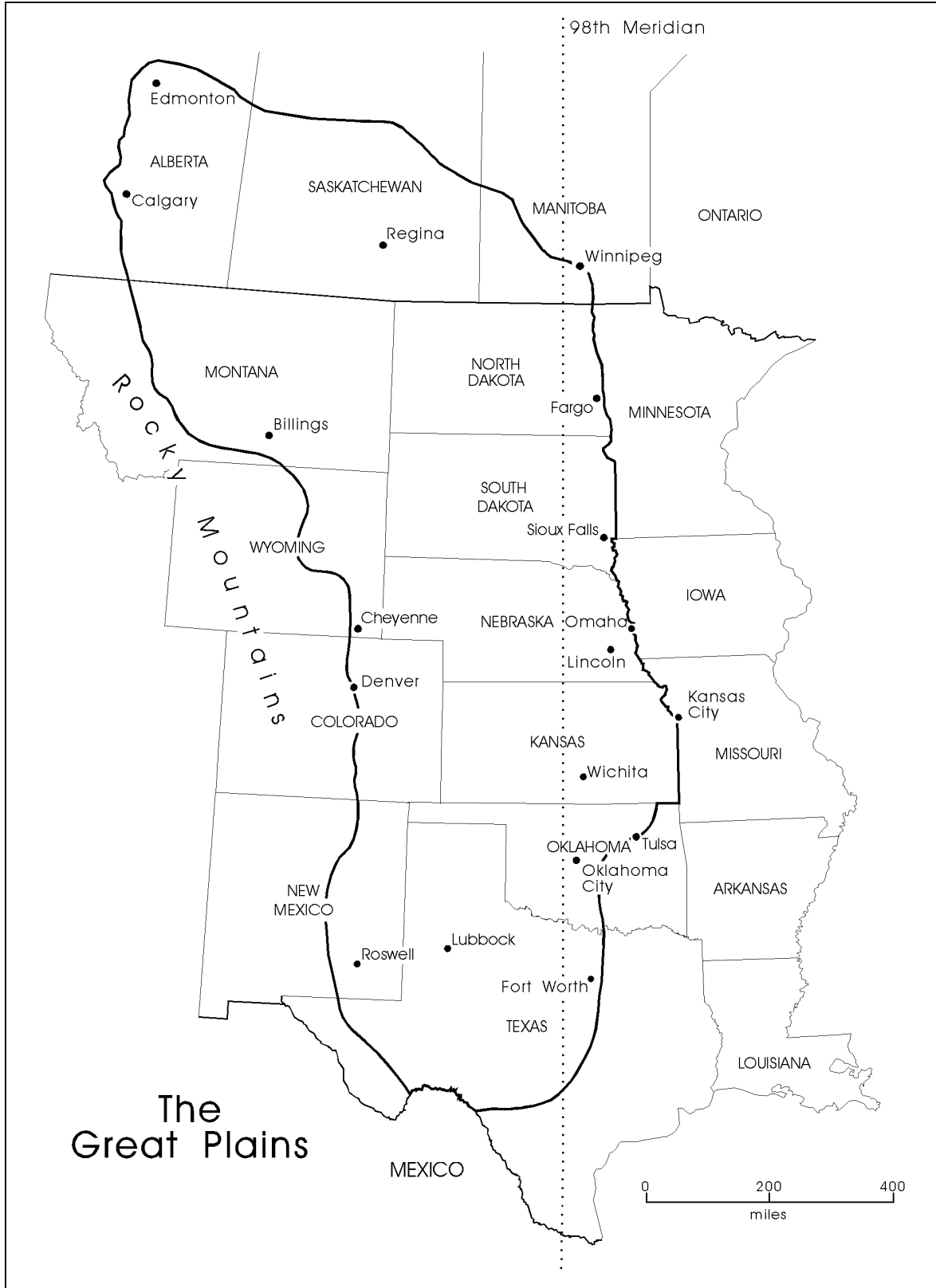
1. Ask students to look at the list of different items included in the *Homesteader’s Budget Worksheet*. How do they compare to the things owned by their family? What do these items tell us about the life of a homesteading family?

QUOTATION FROM *THE YOUNG FARMER'S MANUAL*

“Wherever a farm may be located,
or whatever may be its production,
fence,
fence,
fence,
is the first, the intermediate,
and the last consideration
in the whole routine of the operations of the farm.”

– S. Edwards Todd, *The Young Farmer's Manual*, 1860

GREAT PLAINS MAP



Center for Great Plains Studies, University of Nebraska-Lincoln, Lincoln, Nebraska

GREAT PLAINS PHOTO



Montana, undated

Photo by Marion Post Wolcott

Library of Congress, Prints & Photographs Division, FSA/OWI Collection (LC-USF34-058140-D)

QUOTATION BY U.S. AGRICULTURE COMMISSIONER

“When one has roamed, as I have, over those boundless and woodless prairies, extending thousands of miles away to the west, and south of us, the question of almost painful interest arises, how are these vast plains to be peopled? How are they to be tamed, subdued, and brought into proper use and cultivation? How are they to be *fenced*?

— Horace Capron, U.S. Agriculture Commissioner, 1867-1871

HOMESTEADER'S BUDGET WORKSHEET

Congratulations! You've decided to take advantage of the Homestead Act. This act allows you to claim 160 acres of land owned by the United States government on the Great Plains for *free*! All you have to do to own the land is pay \$18 in fees, start farming on your land within six months, and then live there for the next five years. Sounds easy, right?

Well, before you file your land claim, you should do some careful planning. Although you can own the land for almost nothing, there are many costs to starting up a new farm. Use this budget worksheet to help you figure out how much money you will need to be a successful homesteader.

Like many families, you have a "grubstake" of about \$300 to start your new farm. This is money you have saved, borrowed, or earned from selling your land and home to invest in a new farm.

This budget worksheet is broken into different sections. Add together the cost of the items in each section. Then add the subtotals together at the end to find the grand total of money you will need to be a homesteader. Remember, your grubstake is \$300.

Household Items

You probably already own the basic household items you will need such as a 15-gallon washtub, washboard, bucket, plates, cups, pans, knives and forks, kerosene lantern, clothing, and bedding. You can bring a table, chairs, and bed with you, or you can make them when you get to your farm. You should also stock up on matches and soap before you leave.

Item	Quantity/Description	Cost
Matches	1 case of 100 boxes	\$1.15
Soap	25 pounds @ \$.15/lb.	\$3.75
Subtotal		

Land and Shelter

The cost for filing a claim on your 160-acre homestead is \$18. You will need to make a house with whatever materials you can find when you arrive at your claim. Many families on the plains live in dug-out houses or sod houses during their first few years on their farm. While you are building your new home, you might want to have a tent to shelter you from rain.

Item	Quantity/Description	Cost
Land Claim Filing Fee		\$18.00
Tent	12 feet x 12 feet	\$5.80
Subtotal		

Food

You will need to buy about six months' worth of food to eat until you can harvest your first crop. For each adult in your family, you will need the following food supplies: 150 pounds of flour, 20 pounds of corn meal, 50 pounds of bacon, 40 pounds of sugar, 10 pounds of coffee, 15 pounds of dried fruit, 5 pounds of salt, half a pound of baking soda, 2 pounds of tea, 5 pounds of rice, and 15 pounds of beans.

Count every two children in your family as one adult. Multiply the prices below by the number of people in your family to find the cost of food you will need. For example, if you have two adults and two children in your family, you will multiply by three.

Item	Cost x # of Adults	Cost for Your Family
Flour, 150 lb.	\$3.00 x	
Corn Meal, 20 lb.	\$1.00 x	
Bacon, 50 lb.	\$2.50 x	
Sugar, 40 lb.	\$1.60 x	
Coffee, 10 lb.	\$1.00 x	
Dried Fruit, 15 lb.	\$.90 x	
Salt, 5 lb.	\$.30 x	
Baking Soda, 1/2 lb.	\$.06 x	
Tea, 2 lb.	\$1.20 x	
Rice, 5 lb.	\$.25 x	
Beans, 15 lb.	\$.90 x	
Subtotal		

Seed and Wood Fencing

You will have to decide how many acres to plow, plant, and fence. The more you plant, the larger your crop will be, and the more you will have to eat and to sell. On the other hand, plowing, planting, and fencing a larger area will require more money and more work. Here are the seed and wood fence costs for different areas. Choose how much you want to plant, write the acres in the "# of acres" column and the costs in the "cost for your plan" column.

10 acres:	Seed corn = \$1	Fencing = \$83
20 acres:	Seed corn = \$2	Fencing = \$123
40 acres:	Seed corn = \$4	Fencing = \$165
80 acres:	Seed corn = \$8	Fencing = \$247
160 acres:	Seed corn = \$16	Fencing = \$330

Item	# of Acres	Cost for Your Plan
Seed Corn		
Pine Post-and-Rail Fencing		
Subtotal		

Now add all your subtotals together.

Category	Subtotal
Household Items	
Land and Shelter	
Food	
Seed Corn and Wood Fencing	
Grand Total	

How did your budget work out? Can you be a successful homesteader with your \$300 grubstake?

BARBED-WIRE ADVERTISEMENT

GLIDDEN STEEL BARB WIRE

MANUFACTURED BY
I. L. ELLWOOD & CO.

DE KALB, ILL.

FOR SALE BY

AFTER THE FLOOD.

SPARKS

Safety to Passengers AND PROPERTY.
 LASTS TWICE AS LONG as any other kind of Fence.
SPARKS DO NOT SET IT ON FIRE.
 Floods do not sweep it away.
 ITS MERITS COMMEND IT AS THE BEST FENCE OF THE WORLD.

Pioneer Barb Fencing.

Over 150 Railway Companies USE THE GLIDDEN STEEL BARB WIRE. More in use than of all other kinds COMBINED.
ALL NEW STEEL.
 Lighter per Rod than any other made FROM SAME SIZE WIRES.
MORE BARBS PER ROD & BETTER PROTECTION.
 The BEST is cheapest and the GLIDDEN IS GUARANTEED WITHOUT AN EQUAL

Standard of the World

SHARP & CARROLLVILLE ILL. CO. CHICAGO

Collection of the Ellwood House Museum, DeKalb, Illinois

BARBED-WIRE BUDGET WORKSHEET

Now that barbed wire is available, let's replace the cost of wood fencing with barbed-wire fencing in your budget. First, decide how many acres you will plow, plant, and fence. Then fill in the costs in the chart below.

10 acres:	Seed corn = \$1	Fencing = \$42
20 acres:	Seed corn = \$2	Fencing = \$63
40 acres:	Seed corn = \$4	Fencing = \$84
80 acres:	Seed corn = \$8	Fencing = \$126
160 acres:	Seed corn = \$16	Fencing = \$168

Item	# of Acres	Cost for Your Plan
Seed Corn		
Barbed-Wire Fencing		
Subtotal		

Now fill in the subtotals from your original budget in the first four categories. Use the new subtotal for Seed Corn and Barbed-Wire Fencing. Calculate your grand total.

Category	Subtotal
Household Items	
Land and Shelter	
Food	
Seed Corn and Barbed-Wire Fencing	
Grand Total	

How did barbed-wire fencing affect your budget? Can you be a successful homesteader with your \$300 grubstake?