Lesson: Economic Relationships: History, the Dollar, and Agriculture

Grades: 6-8

Duration of Lesson: 2 - 50 minute periods



Montana State Standards:

Social Studies: Content Standard 1: Students access, synthesize, and evaluate information to communicate and apply social studies knowledge to real world situations. 1. Apply the steps of an inquiry process (e.g. identify question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate product and process). End of Grade 8.

Social Studies: Content Standard 4: Students demonstrate an understanding of the effects of time, continuity, and change on historical and future perspectives and relationships. Montana, American Indian, United States, and world history. 4. Identify significant events and people and important democratic values in the major era/civilizations of 5. Identify major scientific discoveries and technological innovations and describe their social and economic effects on society. End of Grade 8.

Social Studies Content Standard 5: Students make informed decisions based on an understanding of the economic principles of production, distribution, exchange and consumption. 2. Apply economic concepts to explain historical events, current situations, and social issues in local, Montana, tribal, national, or global concerns. 6. Analyze the influences of technological advancements on household, state, national, and global economics. End of Grade 8.

Math Common Core 6. Statistic and Probability

Summarize and describe distributions. 5. Summarize numerical data sets in relation to their context.

Understanding(s) /**Big Ideas:**

Students will understand the relationship of key U.S. Presidents and historical figures in the development of agriculture. Students will understand changes in agriculture as they relate to time and industrialization. Students will understand the current economic standard of the US agriculture business.

Students will know: The role US Presidents and other historical figures played in the development of agriculture. Students will know the changes in agriculture are due to engineers, farmers, technology, and science. Students will know the production of food has increased, as the number of farms has decreased. Students will know the role the US Dept of Treasury plays in currency.

Essential Question(s):

What do US Presidents have to do with agriculture?
What historic events changed agriculture? Were farmers the only ones who changed agriculture?
How does the US currently compare in food costs to other nations and why? What is disposable income?

Students will be able to: Identify the main reasons agriculture has changed over the past 200 years. Students will be able to identify reasons for the changes in agriculture.

STAGE 2 – ASSESSMENT EVIDENCE

<u>Performance Task(s)</u>: Students will investigate data, charts, and historical data for two different activities. Students will be quizzed on data from charts.

Other Evidence:

Students will engage in classroom discussions, investigating changes in the world of food production.

STAGE 3 – LEARNING ACTIVITIES

- 1. Hand out copies of the student section pages 3-14. Give students time to read all the information thoroughly. Discuss the charts with students.
- 2. Hand out activity sheet #1. Give students time to fill out the sheet and collect for grading.
- 3. Quiz #1 (As students finish you can have student page 15 ready to hand out.)
- 4. Make sure all students have a copy of student page 15. After students have completed the page, ask them to explain their choices.

Student Section



1862 First \$1Legal Tender featured Salmon P Chase, Secretary of Treasury



Famous 1896 "Educational Series" \$1 Silver Certificate

Fun Facts about money:

Why are certain individuals chosen to be on currency? The Secretary of the Treasury selected the designs for currency. Law prohibits portraits of living persons to appear on currency. The portraits on U.S. currency are of deceased persons whose places in history are well known.

Who Signed My Money? Signatures of the Treasurer of the United Stated and the Secretary of Treasury appear on paper currency. These signatures make the notes legal tender. The Treasurer of the United States oversees the Bureau of Printing and Engraving as well as the United States Mint. The Secretary of the Treasury is a member of the President's cabinet and is the head of the U.S. Department of Treasury.

What is on the back of a one dollar bill? The back of a one dollar bill includes two circles, which are the Great Seal of the United States. The First Continental Congress requested that Benjamin Franklin and a group of others develop the seal. There is a pyramid in the left-hand circle. The pyramid is unfinished to symbolize that our nation will always grow and improve. The eye over the pyramid is an ancient symbol for divinity. Benjamin Franklin believed that great things can be accomplished by many with God's help.

The second seal includes the Bald Eagle, which represents courage and strength.

What is the average life span of a coin? Coins usually survive in circulation for about thirty years.

What has to be on a coin? By law, U.S coins must include inscriptions of the following: In God We Trust, E Pluribus Unum, and the United States of America. Other information includes the value of the coin as well as the year of minting.

Connecting money to agriculture through history....

U.S. notes (bills) have a direct connection to agriculture. The notes are made out of a cotton and linen blend. A total of 17 southern states grow cotton for apparel, household, and industrial uses. As well, flax was first brought to the United States to make linen and paper.

In the Northern Great Plains region of the U.S., flaxseed is grown for food, animal feed ingredients, and industrial uses. U.S. coins contain copper. Copper ore is mined and then processed to purify copper. The United States is the second largest producer of Copper in the world. Mottoes such as E. Pluribus Unum and Liberty printed on U.S. coins communicate a philosophy of freedom and unity. The Statue of Liberty, a symbol of American independence, is also made from copper. The United States' coinage and notes also feature individuals whose contributions to history are well known.

Let's follow money through historical changes and see what kind of agriculture issues some of our past presidents and other historical figures faced, their contributions to agriculture, and how our money has a direct impact on agriculture.



Benjamin Franklin

Born: January 17, 1706 in Boston, Massachusetts Died: April 17, 1790 in Philadelphia, Pennsylvania

- Developed several new inventions that impacted rural life. Franklin also authored Poor Richard's Almanac.
- Introduced Native American plants to Europe and European plants to America. Franklin is credited with bringing broom corn to the United States.
- Suggested implementing crop insurance.
- Printed books on agriculture and botany.



George Washington

1st President of the United States: 1789-1797

Born: February 22, 1732 in Westmoreland, Virginia Died: December 14, 1799 in Mount Vernon, Virginia

- Described his most important occupation as a farmer.
- Tested over 60 different crops and practiced crop rotation at his Mount Vernon plantation.
- At Mount Vernon, Washington grew wheat, corn, potatoes, buckwheat, oats, and rye.
- Invented a barn for processing wheat and other grains.



Alexander Hamilton

1st Secretary of the Treasury: 1789-1800

Born: 1757, St. Croix, West Indies

Died: 1804, Greenwich Village, New York

- Born in the West Indies. His father, James Hamilton, was a Scottish merchant.
- Worked as a clerk at the trading post of Cruger and Beckman. The main export was sugar and the main labor forces were slaves. In this role, Hamilton learned about the importance of trade and developed a strong economic reasoning.
- In 1772, his benefactors sent him to New York to receive an education.
- As Secretary of the Treasury, Hamilton established a modern financial system and argued for an economy that included manufacturing and farming.
- Was shot and mortally wounded in a duel by the Vice President of the U.S. Aaron Burr.



Thomas Jefferson

3rd President of the United States: 1801-1809

Born: April 13, 1743 in Albemarle County, Virginia

Died: July 4, 1826 in Monticello, Virginia

- Known as one of America's early agronomists due to his practices with crop rotation, fertilizer, and contour plowing.
- Believed that agriculture, manufacturing, commerce, and navigation were the four pillars for the nation's prosperity.
- Thought that farmers are the nation's most valuable citizens, because they are tied to their country and devoted to its interests.



Sacagawea

Born: 1787, in an area near the Rocky Mountains

Died: December 22, 1812 in Fort Mannuel, South Dakota

- President Jefferson sent Lewis and Clark to explore the West and report back on the land's potential for agricultural success.

- Lewis and Clark hired Toussaint Charbonneau, a French Canadian fur trader, to serve as a guide through the West. There was even more interest in his wife, Sacagawea because she could speak Hidasta and Shoshone.
- From the Shoshone tribe, Sacagawea was an interpreter and guide on the Lewis and Clark Expedition. She shared information with Lewis and Clark on soils, plants, and animals.
- Sacagawea's son, Jean Baptiste, known as "Pomp" also traveled on the expedition. As an adult, Baptiste was a mountain man in the West and was one of the first Americans to search for gold during the California Gold Rush. Baptiste is the only child on a U.S. coin. Charbonneau was Jean Baptiste's father, but Clark adopted Baptiste and his sister after Sacagawea's death.



James Madison

4th President of the United States: 1809-1817 Born: March 16, 1751 in King George, Virginia Died: June 28, 1836 at his Montpelier estate in Virginia

- Managed the family plantation at Montpelier, which included over 5,000 acres of land.
- Was president of the Agricultural Society of Albemarle; the main goal of the society was to sustain a "rural and republican virtue in country life."
- Received an education from Princeton University, which focused on modern science and increased his desire to develop farming techniques that would yield more product and still maintain the land's fertility.
- Built dams, mills, and tools to aid in farming as well as experimented with new seeds and planting techniques.
- Developed a seven-year crop rotation cycle to maintain the land.
- Advocated for the experimentation of animal manure and corn stalks as a means to replenish the soil.
- Kept weather diaries in which he conducted a ten year experiment. Madison wanted to better understand temperature variations caused by altitude, latitude, and distance from the sea.
- Thomas Jefferson referred to Madison as the "best farmer in the world" because he "unified with other science the greatest agricultural knowledge in the world."



Andrew Jackson

7th President of the United States: 1829-1837 Born: March 15, 1767 in Waxhaw, South Carolina

Died: June 8, 1845 at the Hermitage near Nashville, Tennessee

- Had occupations such as lawyer, judge, storekeeper, and politician, but farming was his primary source of income.
- Owned a 1000 acre plantation called The Hermitage located in Tennessee.
- At the Hermitage, Jackson planted 200 acres of cotton. The remainder of the land was devoted to corn, oat, and vegetable production. The plantation also had hogs, milk cows, beef cattle, and sheep.





Abraham Lincoln

16th President of the United States: 1861-1865 Born: February 12, 1809 in Hodgenville, Kentucky

Died: April 15, 1865 in Washington, D.C.

- Had a background in pioneer farming and worked as a country lawyer.
- Believed that farmers' interests were of primary importance.
- Established the U.S. Department of Agriculture in 1861.
- Endorsed education as the key for continued progress in agriculture. In 1862, Lincoln passed the Morrill Land Grant College Act, which donated land for colleges of agriculture.



Salmon P. Chase

Served as the Secretary of Treasury under Abraham Lincoln: 1861-1864

6th Chief Justice of the United States: 1864-1873

Born: 1808 in Cornish, New Hampshire Died: 1873 in New York City, New York

- A leader in the anti-slavery movement. Chase believed that slavery destroyed the nation's liberty.
- Served as the Secretary of the Treasury under Abraham Lincoln.
- As Secretary of the Treasury, Chase established a national banking system and the issue of legal tender paper currency. It was Chase's job to design the paper currency.
- In Texas v. White (1896), Chase crafted the majority response which stated that succession from the Union was unconstitutional and reaffirmed the Constitutional right to guarantee a republican government in the states.
- Admitted John Rock to the bar of the U.S. Supreme Court. Rock was the first African American attorney to argue cases before the Supreme Court.



Ulysses S. Grant

18th President of the United States: 1869-1877 Born: April 27, 1822 in Point Pleasant, Ohio

Died: July 23, 1885 in Mount McGregor, New York

- Fought in the Mexican War (1846-1848).
- In 1860, the Grant family moved to Galena, Illinois. Here Grant worked in his father's leather goods store.
- Fought in the Civil War (1861-1865). Grant's first assignment was to make a fighting regiment out of the First Illinois volunteers.
- In 1865, forced the Confederate surrender at Appomattox Courthouse and ended the Civil War.
- Married the daughter of a plantation owner. Grant helped manage the farming operations of the family's plantation called White Haven.
- Planted wheat, oats, corn, and potatoes at White Haven.



Grover Cleveland

22_{nd} President of the United States: 1885-1889 24th President of the United States: 1893-1897 Born: March 18, 1837 in Caldwell, New Jersey Died: June 24, 1908 in Princeton, New Jersey

- In Cleveland's first term of office, the U.S. Department of Agriculture received cabinet status.
- In his 1885 State of the Union address, Cleveland stated that "the agricultural interest of the country demands just recognition and liberal encouragement." He went on to reiterate the importance of the U.S. Department of Agriculture for agriculture's continued progress.
- During Cleveland's second term, the U.S. Department of Agriculture began researching soils and crop production across the United States to determine soils' adaptability to plants and crops.
- It is said that Baby Ruth candy was named after Cleveland's daughter, Ruth. From the early 1920s to 1990, the Baby Ruth was the staple candy bar for Chicago-based Curtiss Candy Company.



William McKinley

25th President of the United States: 1897-1901

Born: January 29, 1843 in Niles, Ohio

Died: September 14, 1901 in Buffalo, New York

- Became president as the country was suffering from an economic depression.
- In his Inaugural Address, McKinley recognized the negative impact the depression had on agriculture.
- McKinley believed that a revival in manufacturing as well as legislation for a secure system of revenue would support the nation's farmers.



Woodrow Wilson

28th President of the United States: 1913-1921 Born: December 28, 1856 in Staunton, Virginia Died: February 3, 1924 in Washington, D.C.

- Approved the Smith-Lever Extension Act in 1914. This act established extension services as a way to help people utilize research-based knowledge in areas such as agriculture, food, and youth. Extension programs are provided by land-grant universities, such as the University of Illinois. Wilson's goal was to provide farmers with direct access to the USDA to learn about new technologies.
- Signed the Federal Farm Loan Act (FFLA) of 1916, which established Farm Loan Banks to serve members of Farm Loan Associations. The benefit of this act was to allow small farmers to be more competitive with larger businesses.
- Passed the Smith-Hughes Vocational Education Act of 1917, which provided federal assistance to states to promote vocational education in areas such as agriculture.
- Believed that agriculture was "the understructure of the Nation's welfare" because its food production is "fundamental to life." Wilson stated that the fate of World War I rested on farmers to produce food for the United States and its Allies. In 1917, the U.S. government approved the Food Production Act and Food Control Act to benefit and assist farmers with production.



Franklin D. Roosevelt

32_{nd} President of the United States: 1933-1945 Born: January 30, 1882 in Hyde Park, New York Died: April 12, 1945 in Warm Springs, Georgia

- In order to relieve suffering caused by the depression, Roosevelt's domestic program consistently focused on agricultural recovery.

- To assure a greater food reserve, Roosevelt passed the Agricultural Adjustment Act of 1938. This act included the maintenance of a large grain reserve.
- Stated that the basic principles of farm policy are: to give agriculture a fair share of an increasing national income, to provide consumers with abundant food supplies, to stop waste of soil, and to reduce the gap between surpluses and shortages.



John F. Kennedy

35th President of the United States: 1961-1963 Born: May 29, 1917 in Brookline, Massachusetts Died: November 22, 1963 in Dallas, Texas

- Issued a proclamation to mark 1962 as the U.S Department of Agriculture Centennial Year.
- Increased federal inspection of food, drugs, meat and poultry.
- Established the United States Peace Corps. Peace Corps volunteers work with farmers in Third World Countries to help them improve local diets and increase income through farming techniques. Volunteers also work with agribusinesses on basic business practices as well as crop and livestock production.

Who else has had an impact on agriculture?

Agriculture and industry have changed over the years just as money. Many of the changes have been a result of works through presidents. Other changes have happened because of technology like automation and transportation. Farmers, engineers, scientists, technology professionals, and others have made changes that have affected agriculture.

See if you can come up with some examples of changes that affected agriculture:

Here are some of our examples of changes that affected agriculture:

1800's



Blacksmith

2010



Iron and Steel Factories



Wagon Train



Freight Train



Horsepower



Tractor Power

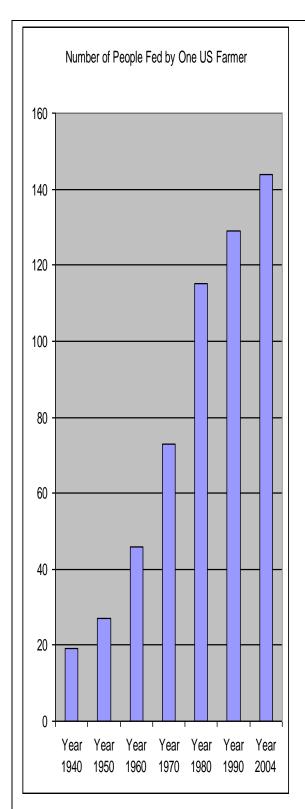


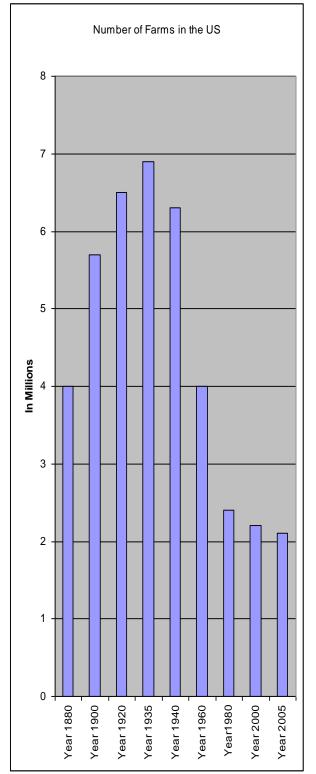
Feeding a family



Feeding the world

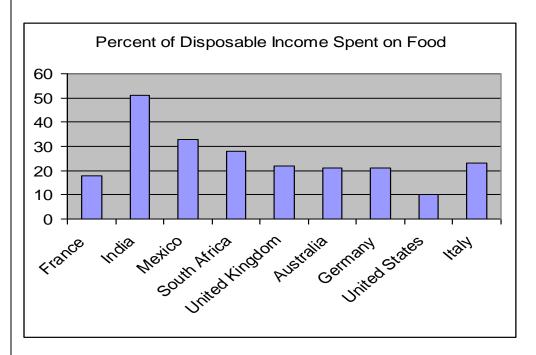
Examining the Facts!
We have been focused on historical data while we investigated changes in agriculture and the dollar. You have probably noticed that several factors changed the face of agriculture over the last 200 years. Let's take a closer look at some data from those years, combine it with the knowledge that you gained looking at the information above, and draw some conclusions! You will be using the charts on the following pages, use the space on this page to write about the data in the charts.

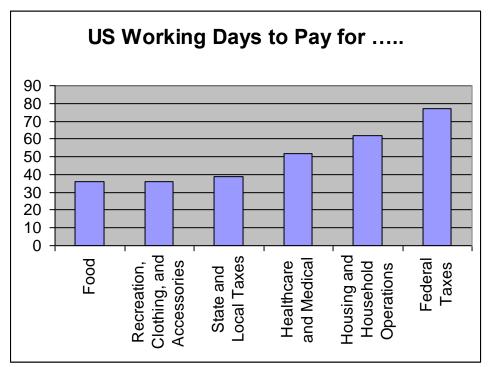




What is the meaning of the almost mirror graphs above? Think about the possibilities.

Our Food Dollar: Let's investigate:





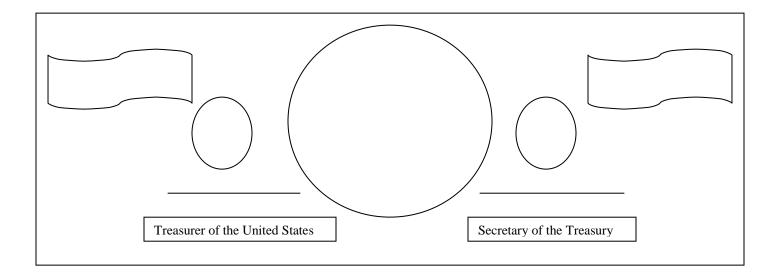
Food Checkout Day: It takes about 40 days for most Americans to earn enough disposable income to pay for their food consumed at home and away from home for the entire year. In 2007, Food Checkout Day was February 6th. Since 1930, the number of days to earn enough income to pay for food has decreased.

Tax Freedom Day: It takes the average American more than 100 days to earn enough income to pay federal, state, and local taxes each year. In 2007, Tax Freedom Day was April 11_{th}. Since 1930, the number of days to earn enough income to pay for taxes has increased.

Let the Fun Continue!

Now it is your turn to nominate a person to gain historical notoriety, and to design a currency note for them! As the newly hired Secretary of Treasury, it is your job to design a three hundred (\$300.00) dollar bill. For this design, you get to select who should appear on this newest currency. Your selection does not have to be a former President, but it needs to be someone who has made a significant contribution to American society and is no longer living. The design process involves creating the layout for the paper currency as well as writing a brief paragraph about the person you selected. Good luck!

From the desk of the US Secretary of the Treasury, I declare that the following per chosen to represent the US currency of \$300.00. I have chosen	rson has been
based on their outstanding characteristics and accomplishments, as listed below.	
	-
	<u>.</u>
Signature:	-



Our Food Dollar: Let's investigate:

Adapted from an activity by the American Farm Bureau Foundation (AFBF)

Our Food Dollar: Let's investigate:

- 1. What is disposable income? <u>Disposable income is the amount of personal income</u> <u>after all taxes have been paid.</u> <u>The remaining amount is available for saving and spending.</u>
- 2. What country spends the greatest percentage of their disposable income on food? **India**
- 3. What country spends the smallest percentage of their disposable income on food? **United States**
- 4. What countries spend about one-quarter of their disposable income on food? **Japan**, **Israel**, **South Africa**, **Mexico**, **and India**
- 5. Which countries spend less than 20% of their disposable income on food? What do these countries have in common? <u>United States, Finland, France, New Zealand, Germany, Australia, United Kingdom, and Italy. All are developed countries, many are European, none are in the tropics</u>
- 6. What could account for the vast difference in disposable income spent on food in the United States as compared to India? Answers may vary, and may include the following reasons: More direct foods sources in the United States, which results in a lower cost. Food is imported to India, which results in higher food costs.
- 7. How many days does it take the average American to pay for their taxes? **Approximately 100 days**

How many days does it take the average American to pay for their food for an entire year? **Approximately 40 days**

8. How does agriculture play a role in United States' affordable food supply? Answers may vary, but may include the following reasons: United States farmers produce many agricultural commodities, which are then processed into everyday products. Scientists have discovered ways to ensure that food products have a longer shelf life and better nutrition, leaving the United States with the most abundant and affordable food supply. Transportation and marketing may also play a role.

USING THE GRAPHS ON PAGE 13 & 14 ANSWER THE FOLLOWING QUESTIONS:

	IN 1940, ONE U.S. FARMER PRODUCED ENOUGH FOOD TO FEEDOPLE.
	IN 1990, ONE U.S. FARMER PRODUCED ENOUGH FOOD TO FEED OPLE.
	HOW MANY MORE PEOPLE DID ONE FARMER FEED IN 1950 AS DMPARED TO 2004?
4.	IN 1880, THERE WERE FARMS IN THE UNITED STATES.
5.	IN 1980, THERE WERE FARMS IN THE UNITED STATES.

LABEL THE GRAPH:

1. LOOK AT THE GRAPH TITLED "NUMBER OF FARMS IN THE UNITED STATES." <u>LABEL</u> THE GRAPH WITH SIGNIFICANT EVENTS IN U.S. HISTORY AS WELL AS THE AGRICULTURAL LEGISLATION AND EVENTS MENTIONED IN THE ARTICLES ABOUT EACH PRESIDENT OR HISTORICAL PERSON. WHAT CONNECTIONS EXIST BETWEEN THESE EVENTS AND THE NUMBER OF U.S. FARMS?

6. FROM 1920 TO 2005, THE AMOUNT OF FARMS HAS DECREASED BY _____.

- 2. THE AMOUNT OF U.S. FARM LAND IS DECREASING, WHILE THE AMOUNT OF PEOPLE FED BY ONE FARMER IS INCREASING. WHAT CONCLUSIONS CAN YOU DRAW ABOUT AGRICULTURAL PRACTICES WITHIN THE UNITED STATES?
- 4. CHALLENGE QUESTION: RESEARCH DIFFERENT AGRICULTURAL ADVANCEMENTS IN THE AREAS OF FOOD PRODUCTION AND PROCESSING. HOW DO THESE ADVANCEMENTS RELATE TO AFFORDABLE FOOD COSTS IN THE UNITED STATES? HOW DO THESE ADVANCEMENTS RELATE TO THE TREND OF FEEDING MORE PEOPLE ON LESS LAND?

Adapted from an activity by the American Farm Bureau Foundation (AFBF)

ANSWERS TO QUIZ #1

USING THE GRAPHS, ANSWER THE FOLLOWING QUESTIONS:

- 1. IN 1940, ONE U.S. FARMER PRODUCED ENOUGH FOOD TO FEED _**19**_____PEOPLE.
- 2. IN 1990, ONE U.S. FARMER PRODUCED ENOUGH FOOD TO FEED <u>129</u> PEOPLE.
- 3. HOW MANY MORE PEOPLE DID ONE FARMER FEED IN 1950 AS COMPARED TO 2004? 125
- 4. IN 1880, THERE WERE **4.0 MILLION** FARMS IN THE UNITED STATES.
- 5. IN 1980, THERE WERE **4.0 MILLION** FARMS IN THE UNITED STATES.
- 6. FROM 1920 TO 2005, THE AMOUNT OF FARMS HAS DECREASED BY <u>4.4</u> <u>MILLION FARMS</u>.

LABEL THE GRAPH:

- 1. LOOK AT THE GRAPH TITLED "NUMBER OF FARMS IN THE UNITED STATES." LABEL THE GRAPH WITH SIGNIFICANT EVENTS IN U.S. HISTORY AS WELL AS THE AGRICULTURAL LEGISLATION AND EVENTS MENTIONED IN THE ARTTCLES ABOUT EACH PRESIDENT OR HISTORICAL PERSON. WHAT CONNECTIONS EXIST BETWEEN THESE EVENTS AND THE NUMBER OF U.S. FARMS? Answers will vary, but may include the following conclusions: Increased number of farms from 1914-1918: During World War I, Present Wilson pushed for increased food production as vital to Allies' success. Decreased number of farms from 1935 could be a result of the Dust Bowl as farmers left their land in search of jobs; Significant decrease in the number of farms from 1937 to 1945: Individuals left rural areas to help out with the war effort or enlist in the Armed Forces. As well, there were significant technological and agricultural advancements in the 1960s.
- 2. THE AMOUNT OF U.S. FARM LAND IS DECREASING, WHILE THE AMOUNT OF PEOPLE FED BY ONE FARMER IS INCREASING. WHAT CONCLUSIONS CAN YOU DRAW ABOUT AGRICULTURAL PRACTICES WITHIN THE UNITED STATES? Answers will vary, but may include the following conclusions: Overall, technology has allowed farmers and ranchers to do more with less land. Improved production practices: more advanced machinery and increased use of technology.
- 4. CHALLENGE QUESTION: RESEARCH DIFFERENT AGRICULTURAL ADVANCEMENTS IN THE AREAS OF FOOD PRODUCTION AND PROCESSING. HOW DO THESE ADVANCEMENTS RELATE TO AFFORDABLE FOOD COSTS

IN THE UNITED STATES? HOW DO THESE ADVANCEMENTS RELATE TO THE TREND OF FEEDING MORE PEOPLE ON LESS LAND?

Answers will vary but will include comments such as: advancements in processing led to longer shelf life for food, new products, and improved nutrition.

Adapted from an activity by the American Farm Bureau Foundation (AFBF)

Resources:

BOOKS

- The Story of Money by Betsy Maestro
- The Go-Around Dollar by Barbara Johnston Adams
- From Gold to Money by Ali Mitgutsch, Marlene Reidel, and Annegert Fuchshuber
- Let's Find Out About Money from the Let's Find Out Library. Written by Kathy Barbas
- The Coin Counting Book by Rozanne Lanczak Williams

WEBSITES

- For worksheets, printable materials, and activities: http://www.MoneyInstructor.com
- Find out more about U.S. coinage and notes: http://www.treas.gov
- Fun facts about currency available at: http://www.moneyfactory.gov/
- Explore the American Currency Exhibit: http://www.frbsf.org/currency/
- An interactive website for kids and lesson plans for teachers: http://www.usmint.gov
- More information on economic resources and rural life: http://www.crees.usda.gov

Other Resources

- For information and lesson plans related to U.S. farming and production: Farm Facts available from the American Farm Bureau Foundation for Agriculture
- For information about processing advancements: Science in Your Shopping Cart booklet available from the U.S. Department of Agriculture
- Illinois Ag in the Classroom lesson: Change for a Dollar