

## Grade 3-4: Agriculture Then (1930) & Now (2000's)

### National Social Science Standard

Growth: Workers can improve their productivity by using physical capital such as tools and machinery.

US History: Understand the history of the local community and how communities in North America varied long ago.

### Objectives:

The student will:

1. identify the time line from the 1930's- 2000.
2. identify the advance in equipment used for farming.
3. compare and contrast the productivity of a farmer between then and now.

### Background

Agriculture has been the world's largest industry for thousands of years. Even in the last 70 years, the lifespan of many of our grandparents, agriculture has changed dramatically.



70 years ago, farmers didn't have machines to help them grow food-nearly everything was done by hand. This required a lot of work by people to produce enough food to feed everyone. The basic tools of farming are continually being improved upon resulting in more efficient use of man's labor.

In the 1900's farmers used animal power to pull their tools, such as plows and seed drills. Engine powered tractors replaced animal power. The tractors of today pulls loads 100 horses could not pull. Plows have developed from being able to plow one row at a time to multiple rows at a time.

Combines that harvest and separate the grain can clean 5 acres (one acre is the size of a football field) of wheat in one hour-a job that used to take 12 workers a whole day.

As farm machines sped up the process of planting and harvesting, fewer people were needed for farm work. Many farmers started branching out into industrial trades and crafts for the manufacture of consumer goods.

In 1930 it took the work of 1 farmer to feed 10 people; today 1 farmer feeds 130 people.

In 1930 it took 15-20 hours of labor to produce 100 bushels of corn; today 2.75 hours of labor produces the same amount.

### Agricultural Timeline

- 1900's horse-drawn farm equipment
- 1910 engine powered tractor
- 1930 rubber tire tractor
- 1940 Began change from horse pulled equipment to tractor pulled equipment
- 1950 Tractors outnumber horses and mules
- 1960 Self-propelled combines introduced
- 1980 Improved farming techniques such as no-till and sustainable farming
- 1990/2000 Computers, Global Positioning Satellites

### Statistical Agricultural Facts

Then (1930's)	Now (2000's)
55% of the population were farmers	2% of the population were farmers
1 acre of land produced 30 bushel of corn	1 acre of land produces 120 bushels of corn
1 farmer fed 10 people	1 farmer feeds 130 people
It took 15-20 hours of labor to produce 100 bushels of corn	It takes 2.75 hours of labor to produce 100 bushels of corn
Average life expectancy was 47 years	Average life expectancy is 76.1 years

### Instructional Procedure

1. Review background information
2. Review the concept of a timeline.
3. Have the students complete the "Agriculture Than and Now" activities

### Word Power

- Combine: a harvesting machine that heads, threshes and cleans grain while moving over a field.
- Plow: a tool used to cut, lift and turn over the soil.
- Productivity: the amount of product that can be made by one man in a specific time period
- Timeline: a table listed important events for successive years within a particular time period.
- Tractor: a four-wheeled vehicle used to pull farm equipment
- Technology: the practical use of science to make life better and easier for people.

### Assessment

1. Give the student's a copy of Activity 3, Agricultural Facts. In a paragraph form, have the student compare and contrast farming then and now.

Name \_\_\_\_\_

## Activity 1: Agriculture Then (1930's) and Now (2000)

### Facts:

◆ In 1930, 55% (more than half) of the population was farmers.

Convert 55% to fraction \_\_\_\_\_

◆ In 2000, 2% of the population was farmers.

Convert 2% to fraction \_\_\_\_\_

### The Missouri Connection

1930 Missouri Population (approximate): 3,600,000 million people

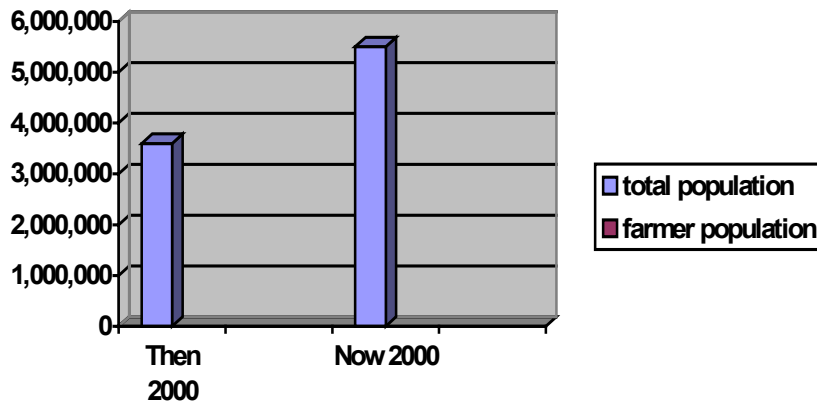
2000 Missouri Population (approximate): 5,500,000 million people

Year	Percent farmers in population	Total population in Missouri	Farmer Population in Missouri
1930	55%	3,600,000	1,980,000
2000	2%	5,500,000	110,000

## Graphing the Missouri numbers:

The total population of then and now is already graphed.

Place a red bar on the graph to indicate the farmer population for each year.



1. The population of Missouri has (increased/decreased) between 1930 and 2000.
2. The number of farmers in Missouri has (increased/decreased) between 1930 and 2000.

### Discussion

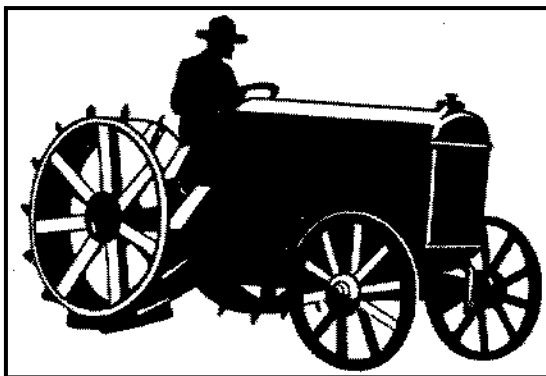
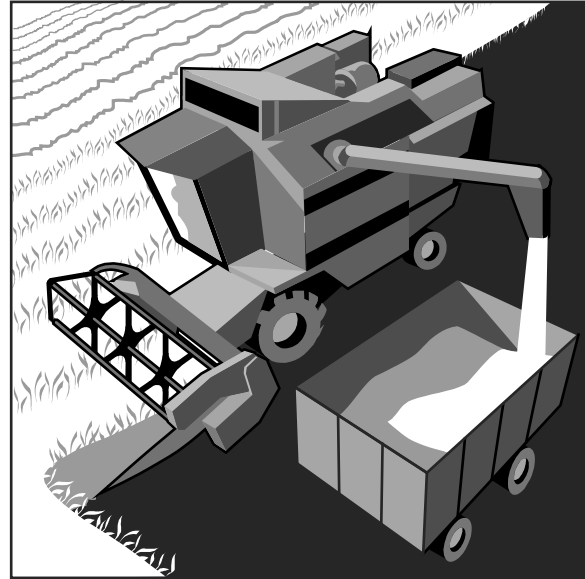
In the past 70 years the number of farmers has decreased but the population has increased. What has changed to help the farmer meet the demand for food?



## Activity 2

### Agriculture Then and Now

→ Cut out the pictures and place in the correct range on the timeline.





<b><u>Timeline</u></b>	<b><u>Agricultural changes</u></b>	<b><u>Paste correct picture in the proper range in this column</u></b>
<u>1900 and before</u>	<ul style="list-style-type: none"> <li>• <u>Animal pulled plows and equipment</u></li> </ul>	
1910	<ul style="list-style-type: none"> <li>• Average farm size: 147 acres</li> <li>• Engine powered tractors introduced (metal wheels)</li> </ul>	
1930	<ul style="list-style-type: none"> <li>• Rubber tire tractor introduced</li> <li>• 1/3 farms had electricity</li> </ul>	
1940	<ul style="list-style-type: none"> <li>• Average farm size: 175 acres</li> <li>• Began change from horse pulled equipment to tractor pulled equipment</li> </ul>	
1950	<ul style="list-style-type: none"> <li>• Most all farms had electricity</li> <li>• Average farm size: 216 acres</li> <li>• The number of tractors exceeded the number of horses and mules</li> </ul>	
1960	<ul style="list-style-type: none"> <li>• Self-propelled combines introduced</li> </ul>	
1970	<ul style="list-style-type: none"> <li>• Sugar beets and cotton harvested mechanically, no hand labor used</li> </ul>	
1980	<ul style="list-style-type: none"> <li>• Average farm Size 460 acres</li> <li>• Improved farming methods such as no-till and sustainable farming</li> </ul>	
1990/2000	<ul style="list-style-type: none"> <li>• Global Positioning Satellites</li> </ul>	

Name \_\_\_\_\_

### Activity 3: Agricultural Facts: Then and Now

➔ In paragraph form, compare and contrast farming then and now.

#### Then (1930's)

- 55% of the population were farmers
- 1 acre produced 30 bushels of corn
- 1 farmer fed 10 people
- It took 15-20 hours of labor to produce 100 bushels of corn.



#### Now (2000's)

- 2% of the population are farmers
- 1 acre produces 120 bushels of corn
- 1 farmer feeds 130 people
- It takes 2.75 hours of labor to produce 100 bushels of corn.

