



TIMELINE OF THE LAND

GRADE LEVEL: 4-5

SUBJECT: History

NATIONAL STANDARDS:

(3-5) H.Und: 1.1-5

THEME: Ag History

FOOD AND FIBER TOPIC: I-D,E; II-B,C,E

LEARNER OBJECTIVE:

Students will construct time lines using historical facts about the development of agriculture.

VOCABULARY

crossbar—Piece which attached across the primitive tool upon which the foot could be placed for pressing the tool into the soil.

integrated pest management (IPM)—An ecological approach to pest management in which all available techniques are consolidated into a unified program, so that pest populations can be managed in such a manner that economic damage is reduced and adverse side effects are minimized.

minimum tillage—Soil management system in which the residue of the previous crop remains on the soil surface and the next crop is planted with little or no tillage

sickle—Sharp curved metal blade fitted with a short handle; used for cutting weeds, grass, etc. One of the earliest hand implements used for harvesting grain.

spade—Long, flat, sharp-bladed, hand-tool which is pushed into the soil by foot pressure to turn over, excavate, and loosen soil in small areas.

yields—The quantity of product(s) resulting from cultivation or growth.

BACKGROUND

The first agricultural tool was probably some type of digging stick or bone. This could have been used to grub up roots or dig holes for seed planting. Someone had the idea of attaching a crossbar to the stick so the stick could be driven into the soil. That was the first shovel or spade. A stick with a branch at one end that could be pulled through the ground was the first hoe. Later people started making blades of stone or shell and attaching them to their hoes to give them greater cutting power. Most tools were made from obsidian or flint, two kinds of stones that are easily shaped by flaking off the edges. A stick used to knock the heads of grain loose from the stalks became a sickle when stone teeth were set along one edge.

After people started raising animals for food, they realized they could also use the animals to help them in other ways. Animals could be used to pull carts, wagons and plows. The strength of the animal allowed areas to be plowed much quicker than could be done by hand.

The change from stone tools to metal tools came about slowly. The discovery of metal gave farmers sharper, stronger blades for hoes, plow points, and sickles. Most cultures first used bronze, then iron.

Agriculture in the New World didn't develop in the same fashion as it did in Europe and Asia. There were no metal tools in the Americas until European explorers and settlers brought them in the 16th century. The idea of using animals to help with the work was also new to the Native Americans. When the Europeans began settling in the New World, they taught the native people some new agricultural practices and in turn learned some new ones from them as well.

An amazing variety of agricultural inventions over the past 300 years has made it possible for the American farmer to feed more and more people. When our country first became a nation, farmers were still relying on animals and their own physical strength to provide the energy needed to grow their food. Farmers today have entered the computer age and depend on computers to tell them things like how much to plant or how much fertilizer to add to a field. Computerized equipment can also determine which fruits are ripe and which aren't or how much their yields are as they harvest. By utilizing minimum tillage or no-till farming methods, farmers can greatly reduce the labor cost of producing a crop. Pesticides which are poisonous only to a specific plant or animal help to protect the environment, as do other methods of integrated pest management. Genetic improvements in both plants and animals have allowed agriculture producers to use less natural resources to produce more food.

STEP-BY-STEP INSTRUCTIONS

1. Discuss with the students the visual importance of a time line and why it is a useful tool.
2. Pass out the student worksheet with dates and discuss some of the dates and facts with the students. Divide the class into teams to research specific dates and events. Have the teams report their findings to the class.
3. Pass out the student time line sheets. Have students tape or glue the sections together sequentially in a strip.
4. Discuss the significance of the facts printed on the time line.
5. Instruct the students to choose 10 events from Worksheet A and write important dates in the correct place on the time line.

RELATED ACTIVITIES

1. Create a large class time line for display. Enlarge the time line sections and assign groups to complete each section. Have students illustrate events and place them by the corresponding year.
2. Have students create time lines of their own lives. Encourage them to decide a specific beginning and ending time.
3. Make a class birthday time line. List months instead of years or dates and plot the birthdays of everyone in class.

RESOURCES

Student Books

- Anderson, J. & Acona, G. (1989). The American Family Farm. Harcourt, Brace, Jovanovich.
- Collins, D. R. (1990). Pioneer Plowmaker: A Story About John Deere. Carolrhoda.
- Enright, E. (1987). Thimble Summer. Dell.
- Freedman, R. (1983). Children of the Wild West. Houghton Mifflin.

Freedman, R. (1985). Cowboys of the Wild West. Houghton Mifflin.
Giff, P. (1987). Laura Ingalls Wilder: Growing Up in the Little House. Viking.
Greer, G. & Ruddick, B. (1988). Max and Me and the Wild West. Harcourt, Brace,
Jovanovich.
Johnson, T. (1992). The Cowboy and the Black-eyed Pea. Putnam.

Additional Teacher Resources

Webb, Dave, and Phillip R. Buntin, *Adventures With the Santa Fe Trail*, Kansas Heritage Center, 1000 Second Ave., PO Box 1207, Dodge City, KS 67801-1207, 316-227-1616, FAX 316-227-1695 (76-page activity book which includes information and teaching suggestions, Stock No. 182, \$7.95, plus \$1.50 for shipping and handling).

Related Internet Websites

History Reading List with variety of educational references to agricultural history.

<http://soils1.cses.vt.edu/JRM/histread.html>

Farm Facts: Significant Events in Agricultural History.

<http://www.fb.com/today/farmfacts/agevents.html>

Agricultural History Journal On-line. A publication of the Agricultural History Society.

Edited at the Center for Agricultural History, Iowa State University.

http://www.public.iastate.edu/~history_info/homepage.htm

EVALUATION

Were the students able to place the agriculturally-related events in the sequential order on the time line? Do students understand the usefulness of the time line for placing historical events in the proper order?

ACKNOWLEDGMENT

This lesson was adapted from Oklahoma Ag in the Classroom, Department of Agricultural Education, Communications and 4-H Youth Development, Oklahoma State University, Stillwater, OK 74078.

Name: _____

Time Line of the Land

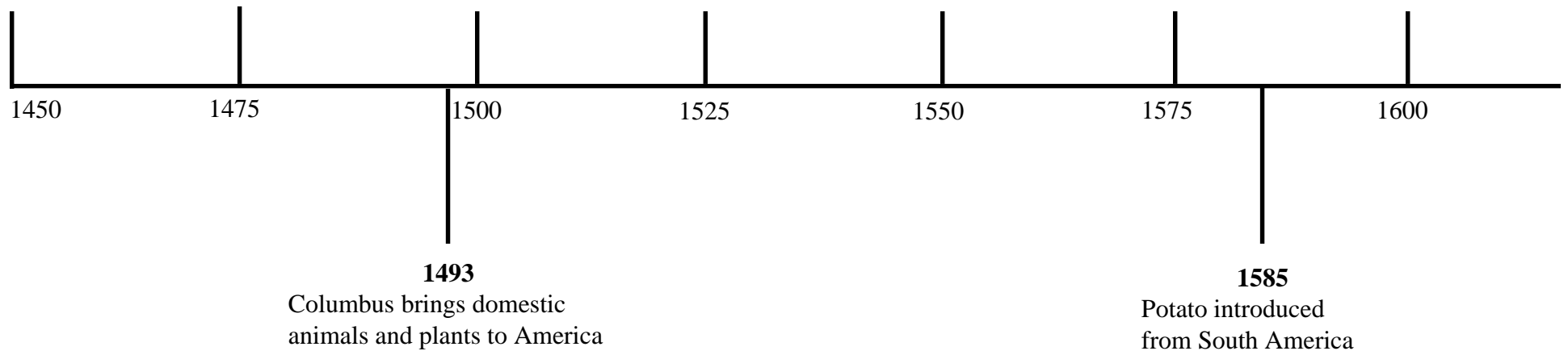
Choose 10 dates which interest you and use them to complete the time line.

- 1493: Christopher Columbus brings calves, goats, sheep, pigs, chickens, citrus, melons and many kinds of vegetables to America.
- 1607: English colonists in Jamestown, VA planted grain, potatoes, pumpkins, melon, cotton, oranges and pineapples.
- 1609: Indians taught the Jamestown settlers to grow corn.
- 1731: Jethro Tull introduced the horse-drawn cultivator and seed drill into English farming.
- 1784: James Small invented the iron plow in England.
- 1793: Eli Whitney invented the cotton gin.
- 1798: John (Johnny Appleseed) Chapman planted his first appleseed nursery in western Pennsylvania.
- 1831: Cyrus McCormick invented the grain reaper.
- 1837: John Deere began manufacturing plows.
- 1850: S.S. Rembert and J. Prescott developed a mechanical cotton picking machine.
- 1855: Michigan and Pennsylvania established the first state agricultural colleges.
- 1856: A patent for condensing milk was issued to Gail Borden.
- 1858: Mason jars, used for home canning, were invented.
- 1862: President Abraham Lincoln signed legislation creating the first Department of Agriculture. The same year he also signed the Morrill Land Grant College Act.
- 1867: Barbed wire was invented.
- 1869: Transcontinental railroad was completed.
- 1875: First silos were built.
- 1881: Hybrid corn was produced, greatly increasing corn production.
- 1887: That Hatch Experiment Station Act was passed, providing federal grants to states for agricultural experimentation (Experiment Stations).
- 1888: The first long-haul shipment of a refrigerated freight car was made from California to New York.
- 1892: John Froelich built the first gasoline tractor.
- 1914: The federal-state extension service was organized (later to become the Cooperative Extension Service).
- 1921: KDKA radio in Pittsburgh, PA broadcast the first farm market news radio report.
- 1933: The Farm Credit Administration was established.
- 1940: The School Milk program was initiated by the United States Department of Agriculture.
- 1947: Federal Insecticide, Fungicide and Rodenticide Act was passed.
- 1949: The Agricultural Act of 1949 was passed, giving surplus food to the needy.
- 1959: The mechanical tomato harvester was developed.
- 1964: The National Food Stamp Act was passed.
- 1970: Plant Variety Protection Act was passed.
- 1988: U.S. – Canada free trade accord was ratified.
- 1991: Integrated Pest Management practices were being taught to farmers.
- 1993: Passage of the North American Free Trade Agreement (NAFTA).
- 1994: Farmers began using Global Positioning System (GPS) to track and plan their farming practices.

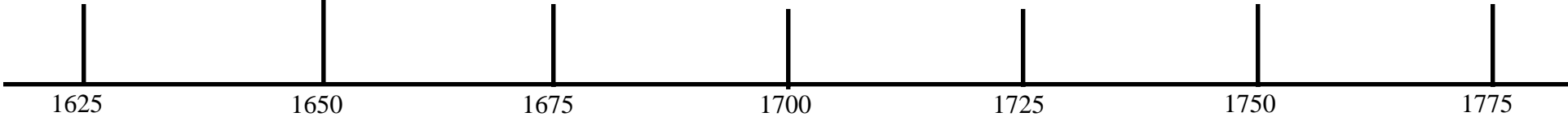


Name: _____

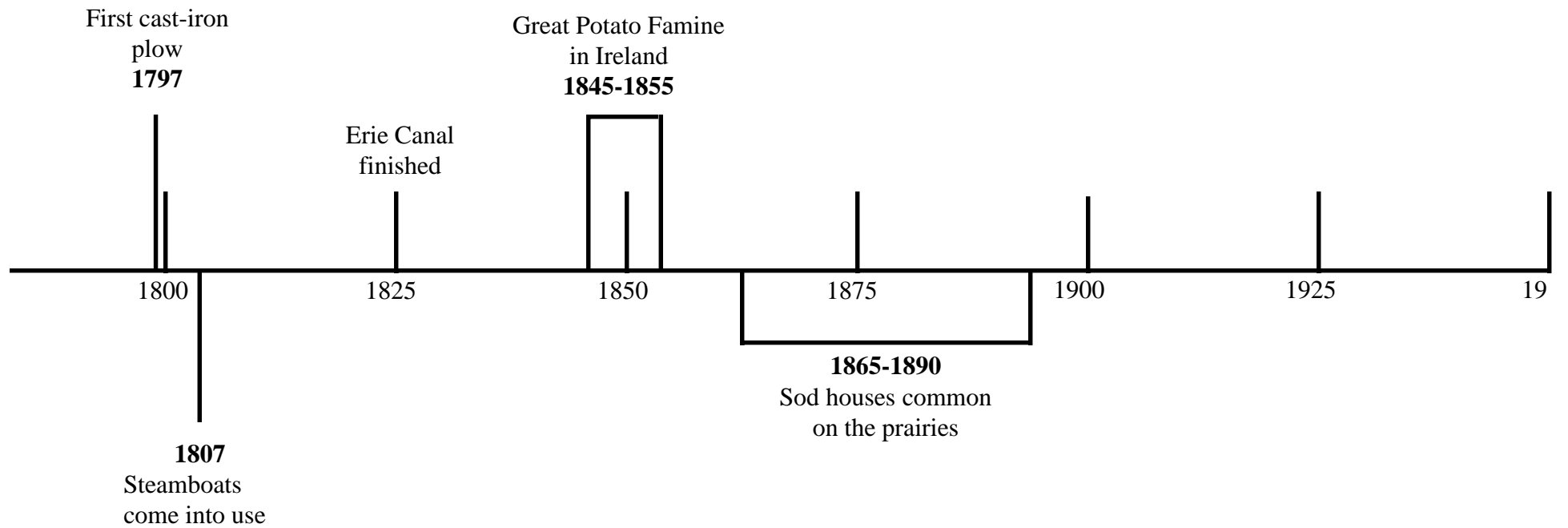
Time Line of the Land



Name: _____



Name: _____



Name: _____

