

# What in the world is a harrow?

**Grade Level:** 7-8

**Length of Activity:** 1-2 class periods

**Outcome:** The learner will gather an understanding of the values farming and industry have in the economy of Kansas.

**Vocabulary:**

- scraper: used to level a field prior to planting
- plow: turns over soil, breaks it up and makes the soil softer
- v-ripper: v-shaped utensil to deeply rip the soil and break it up
- disc: cuts up soil further and loosens it for planting
- harrow: breaks up soil and finalizes it for planting
- row crops: crops planted in even rows such as corn, wheat, or soybeans

**Introduction:** Farming plays an important role in the state of Kansas. Often, consumers do not realize the tremendous amounts of professions associated with bringing food to our grocers and eventually to our tables. The farmer in KS has a lot to do with the beginning process. What does it take to get a crop started so that it may be grown and harvested? Costly equipment, hard work, and a lot of mother nature work are part of the farmer's daily life. Farmers often plow their fields to prepare the soil for planting. That can only be done, of course, if the piece of land is suitable for farming. It may be too rocky, too hilly, or better suited for livestock grazing than for planting of crops. Once the land is broken with a plow, a disc is used to till the soil further and clean up any weeds that are still growing. Some farmers may use a harrow before planting their row crops. The harrow loosens up the soil one final time with spikes that break up clods of dirt. Planters are used to space out the row crops in an even manner. While the growing process occurs, farmers may choose to control weeds or insects if they become a concern. A sprayer will then be used to apply herbicides and pesticides to help control them. Once the maturation of the plant occurs, various harvesting methods will take place, requiring different types of machinery.

Of course, much more processing occurs with the harvested grains once it is shipped to a grain elevator and beyond. What we need to gather further knowledge of is the equipment used to prepare for harvesting. The following activity will teach students about some of the equipment farmers use.

**Materials:**

1. Farm Equipment - How Farmers Get All The Work Done - color book published by Ed D. Bear Enterprises, P.O. Box 7510, Auburn, CA
2. [www.oznet.ksu.edu/wheatpage](http://www.oznet.ksu.edu/wheatpage) (Kids Corner and Machinery)
3. construction paper
4. glue
5. scissors
6. markers
7. laptop computer with internet access

**Activity:**

- Distribute students into groups of four.
- Have students look over the four copies of pictures from Farm Equipment color book. Pick one to be colored and researched. (cut off page numbers on copies)
- Challenge each student to use the internet site to research their particular equipment in their picture.
- Record facts about their equipment; price, types, purpose, history, technological advances, etc. (current encyclopedias or other farm manuals may be needed if nothing found on internet)
- Write at least five facts on their color sheet and then glue to a larger piece of construction paper.
- As a class, determine an order in which all pictures could be sequentially placed.
- Once correct order is determined, staple to large bulletin board wall as in a timeline format.
- Have each student give a brief report about their piece of equipment.
- Higher Level Thinking: have students determine a cost for a piece of equipment per acre, if considering a farmer uses it to farm 250 acres of land.

**Discussion Questions:**

What kinds of things did we, as a class, learn about equipment?

What was one thing you learned about your piece of equipment in your research?

Who are some manufacturers of farm equipment?

When were some pieces of equipment invented? How long have they been around?

**Evidence of Accomplishment:** Students will be evaluated on: coloring accuracy and neatness, research information disclosed, presentation of information to class, and ability to collaborate with classmates in developing a correct sequence.