

NATIONAL SOCIAL SCIENCE STANDARD

- World History: Major global trends since WWII

NATIONAL SCIENCE STANDARD

- Personal and Social Perspectives: Populations, resources and environments.

OBJECTIVE

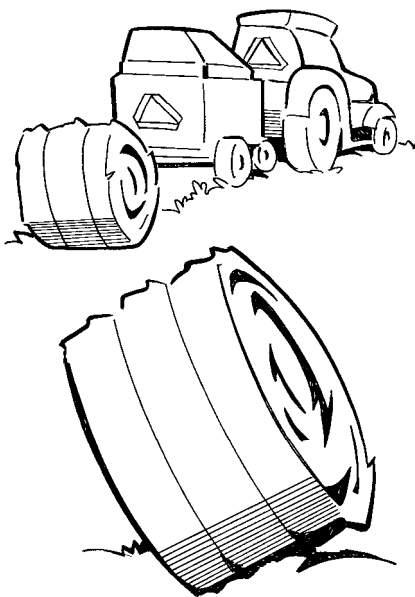
The student will relate cause and effect to agriculture.

BACKGROUND

The global population is growing at a very fast rate. Since 1950 the global population has tripled. Scientists estimate that the earth's population will reach 10 billion before the year 2050.

Most of this growth is taking place in underdeveloped countries. The Slice of Soil lesson (grade 4/5) addresses that the earth has a limited amount of surface area covered with soil to grow food.

With a growing global population (cause) farmers are challenged with growing more food on less land (effect). Farmers need to protect their crops and increase their crop yields



INSTRUCTIONAL PROCEDURE

1. Review background material and Slice of Soil (grade 4/5) lesson.
2. Discuss the concept of cause and effect.
3. In groups of two have the students do Activity 1.
4. Discuss their responses.
5. Discuss the need for ways for farmers to protect their crops from damage from weather, weeds and insects.

ASSESSMENT

Have the student explain what would happen in the following scenario:

A Midwestern drought caused a decrease in corn and soybean production. What would be the effect on you? How would a drought resistant corn or soybean plant developed with biotechnology change the situation?

FAST FACT

SINCE 1950 THE GLOBAL POPULATION HAS TRIPLED.

SCIENTISTS ESTIMATE THAT WE WILL REACH 10 BILLION BEFORE THE YEAR 2050.

WORD POWER

cause *n.* The event that makes something happen.

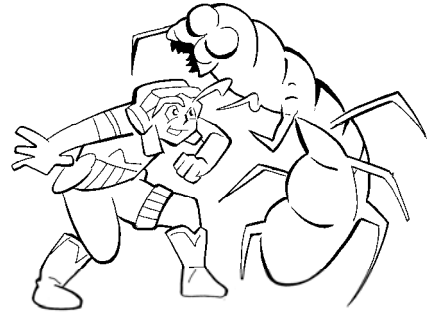
effect *n.* The thing that happens, or the outcome.

NAME _____

ACTIVITY 1 — CAUSE & EFFECT IN AGRICULTURE

CAUSE / EFFECT

For each cause write a possible effect (outcome).



1. It was a very hot and dry summer for the farmer's crops.

2. The heavy spring rains caused the farmer to plant the seeds very late in the season.

3. The weeds in the cornfields grew very tall so the corn plant did not get enough sun or air.

4. One-half of a farmer's crop of wheat is eaten by bugs.

5. Unused plant material from a crop is left to decay (composted) and mixed in with the soil.

6. The world population tripled since 1950, but due to land development the amount of land to grow food on has decreased.
