

Active Reading

Section: How Ecosystems Change

Read the passage below and answer the questions that follow.

Another example of secondary succession is *old-field succession*, which occurs when farmland is abandoned. When a farmer stops cultivating a field, grasses and weeds quickly grow and cover the abandoned land. The pioneer grasses and weeds grow rapidly and produce many seeds to cover large areas.

Then, over time, taller plants such as perennial grasses grow in the area. These plants shade the ground, which keeps light from the shorter pioneer plants. The long roots of the taller plants also absorb most of the water in the soil and deprive the pioneer plants of adequate water to survive. The pioneer plants soon die from lack of sunlight and water. As succession continues, the taller plants are deprived of light and water by growing trees. Finally, slower-growing trees such as oaks, hickories, beeches, and maples take over the area and block out the sunlight to the smaller trees. After about a century, the land can return to the climax community that existed before the farmers cleared it to plant crops.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently a main idea is accompanied by supporting information that offers detailed facts about main ideas.

Read each question and write the answer in the space provided.

1. What type of succession is old-field succession?

2. Summarize what happens to a field when a farmer stops cultivating it.

VOCABULARY DEVELOPMENT

Read each question and write the answer in the space provided.

3. What key terms are used in this passage?

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4. Define the terms you identified in the previous question.

SEQUENCING INFORMATION

One reading skill is the ability to sequence information, or to logically place items or events in the order in which they occur.

Sequence the statements below to show the steps in old-field succession. Write "1" on the line in front of the first step, "2" on the line in front of the second step, and so on.

- _____ 5. Taller plants grow in the area and shade the ground.
- _____ 6. A climax community exists.
- _____ 7. Pioneer grasses and weeds grow and produce many seeds.
- _____ 8. A farmer stops cultivating a field.
- _____ 9. Trees grow and shade the taller plants.
- _____ 10. The taller plants die.
- _____ 11. The pioneer plants die.
- _____ 12. Slower-growing trees shade the smaller trees.

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

Read each question and write the answer in the space provided.

13. What causes pioneer grasses and weeds that have grown in an abandoned field to die?

14. What happens after a farmer abandons a field and the stages of old-field succession take place?
