Name:

# Lesson 1: Succession in Emberville**What Grows Back After a Disturbance?**

Date:

Science Period:

## Ecological Succession in Emberville – Challenge Option No Cheatgrass

A large area near Emberville has been bulldozed and has no plants in it (Year 0). Use what you have learned about the different plants growing near Emberville to make predictions about how these plant populations will change in the coming years.

This lot is 100 yards wide on each side and has a different type of plant growing on each side. Use what you know about how far each plant can spread its seeds and how fast it grows to predict how it will regrow after one, three, 10 and 50 years.

This process of how plant populations change and regrow after a disturbance is called ecological succession. Due to the different life cycles and speed of growth of different plants, the populations of plants may look very different at different times. Use the table on the right to rank the plants 1 to 4 on which will grow back the fastest (1) and slowest (4). Use symbols to indicate different types of plants. In this scenario, the town of Emberville has used herbicide on the Cheatgrass to prevent it from growing back anywhere in this lot.

|  |  |
| --- | --- |
| Plant | Rank |
| Cheatgrass |  |
| Bottlebrush squirreltail |  |
| Pinyon pine |  |
| Sagebrush |  |

Year 1

Bottlebrush squirreltail = ▲

Sagebrush = O

Pinyon pine = +

Year 50

Year 3

Year 10

Sagebrush Shrubs