

## Lesson 5. Climate Change and Plant Growth

Most organisms are affected by climate change and plants are no different. Scientists predict that plants growing in North America, Europe, and Central America will actually consume more water in the future because of climate change. The reason for this is that increased carbon dioxide means that plants require less water for photosynthesis, this means that there will be more water in the soil and in streams. However, global warming also means longer, warmer seasons. This gives plants more time to grow and consume more water. This will eventually dry the land. This type of environment causes plants to grow larger leaves because of amped up photosynthesis. The increased surface area leads to increased evaporation. Scientific models show that increased evaporation from leaves will affect levels of runoff and soil moisture. Earth's water cycle is regulated by plants, which is why changes in photosynthesis can cause so many other environmental changes. It is for this reason that climate change is referred to as a domino effect.

### Respond to Reading

#### Directions

Respond to the questions below. Underline and identify specific lines from the passage that support your claim.

Climate change has been described as a domino effect. What are some examples of this phenomenon occurring?

Why would scientists be concerned about the effects climate change is having on plants and photosynthesis?