

Ready, Set, Grow! Answer Key

Focus Question

1. What do plants need to live? Circle the limiting resource(s) in the ecosystem as climate change intensifies.

Maybe → **Nutrients**

Water

Sun

Suitable temperature range

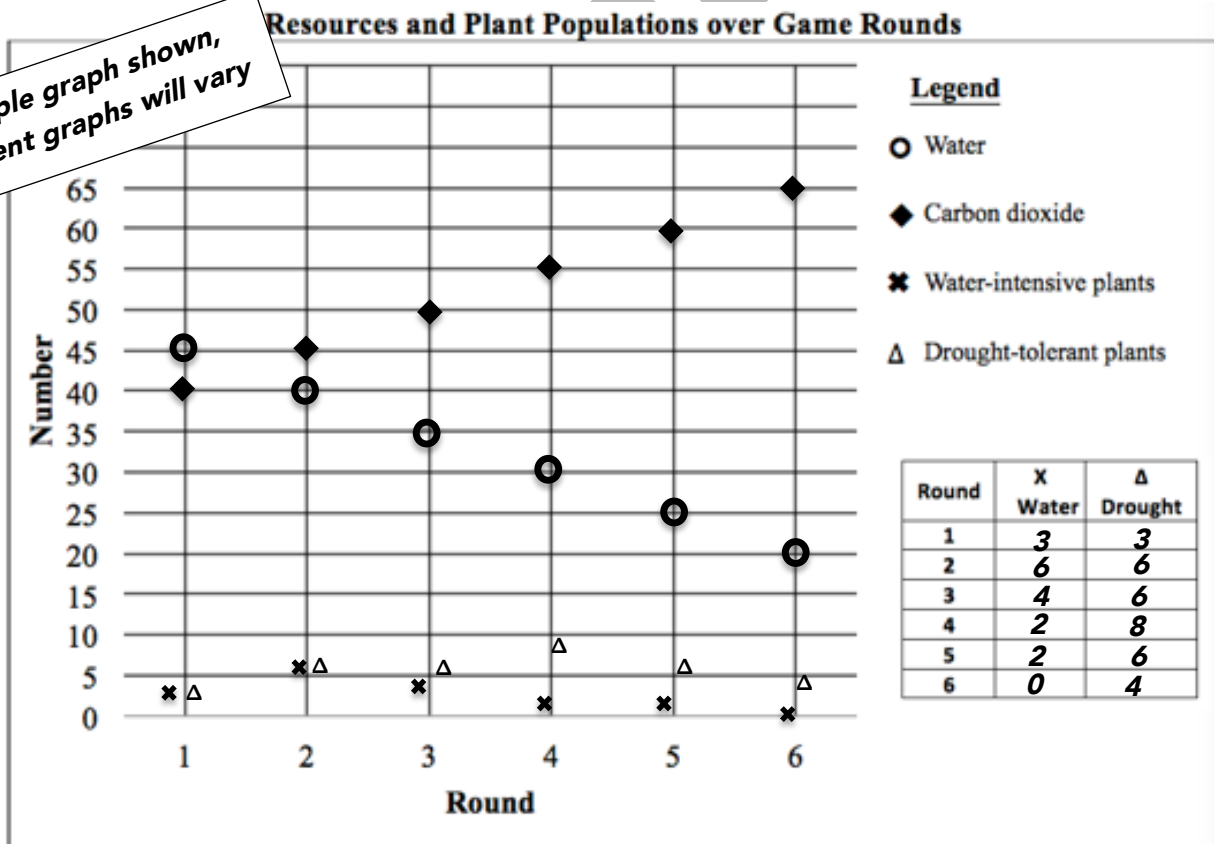
Space

Maybe → **Carbon dioxide**

Game Graph

Using the symbols indicated in the legend, denote the number of water cards, carbon dioxide cards, water-intensive plants, and drought-tolerant plants at the beginning of each round. At the end of the game, connect the corresponding symbols with a line.

Sample graph shown, student graphs will vary



Results

1. Which plant population tended to have more individuals during most of the game rounds?

- a. Water-Intensive Plants **b. Drought-Tolerant Plants** c. Neither

← This is usually the case

2. At the conclusion of the game, which plant population had more individuals?

- a. Water-Intensive Plants **b. Drought-Tolerant Plants** c. Neither

← This is usually the case

Conclusions

1. Based on the results of this game, are plant populations more likely or less likely to survive in areas with limited water resources due to intensifying climate change conditions?

- a. Plant populations are more likely to survive

- b. Plant populations are less likely to survive**

2. Use the map of New Mexico to answer the following questions.

- a. Find your location on the map. How much annual rainfall does this area get?

Student answers are dependent on location. Refer to New Mexico precipitation map for your area's annual rainfall.

- b. How do you think your area will be affected by climate change?

New Mexico will experience increased temperatures and changes in precipitation patterns. Many areas will receive decreased precipitation, but some may receive increased precipitation in different seasons.

- c. What are some actions communities in your area can take in response to decreased precipitation and increased temperatures as a result of climate change?

This is where students can begin to think about possible action plans related to water and climate change. Responses could include:

- **Installing rainwater harvesting systems**
- **Creating water use awareness campaigns**
- **Planting native, drought-tolerant plants rather than water-intensive plants**
- **Installing water efficient appliances in their homes**