

Plant Adaptations

Name: _____ Date: _____ Core: _____

LT: I can gather and summarize information on plant adaptations.

Directions: Watch BBC Documentary – Life 9 of 10 – Plants and answer the questions.

1. Like animals, plants need food and water to survive. What additional need do plants have?
2. Why is the forest floor the hardest place for young plants to thrive?
3. Plants such as ivy, the cat's claw and the passion flower have adapted to accessing sunlight in dense forests. Describe three examples of adaptations that allow plants to access the sunlight in dense growth.
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4. Air plants are able to survive on the branches of tall trees. They never actually touch the ground. How have these plants adapted to absorbing water and nutrients?
5. Bogs are wetlands with very little nitrogen available for plants. Explain how each of these plants has overcome this problem and have adapted to get nutrients.
 - a. Sundew -
 - b. Venus Flytrap -
6. Flowers are an effective way of attracting insect pollinators, but they are very delicate. How has the Richea honeybush adapted to protect its stamens from the cold?
7. The sandhill milkweed has almost an adversarial relationship with monarch butterflies, yet the butterflies are necessary for the survival of the plant. Explain this relationship between the plant and the butterflies and why it is important to both species.
8. Heliconia has modified leaves that protects the nectar of its flowers deep inside. What animal can access the nectar? How does adaptation help Heliconia to propagate (reproduce)?

9. The purpose of seeds is to send the plant offspring as far away from the parent as possible, so that any competition is avoided. Describe how each of these species accomplishes this:
 - a. Brunsvigia –
 - b. Alsomitra –
 - c. Saguaro Cactus –
10. The Dragon's Blood Tree lives in an extremely dry climate. How has its shape adapted to help it survive in this inhospitable climate?
11. The desert rose is also well adapted to dry climates. Describe one of its adaptations.
12. Mangrove trees endure a regular flooding of salt water. What adaptation is present in their roots and how does it help them survive?
13. What happens to broadleaf trees in temperate climates as winter approaches that helps the trees survive the winter temperatures?
14. How are evergreen trees able to keep their leaves throughout the year, even during a cold, dry winter?
15. Bristlecone pines live in one of the most inhospitable places in the world for plants – they experience bitter, freezing winds most of the year. Describe how they are different than other plants and able to survive here.
16. What is the most successful flowering plant?
17. What two types of grasses are extremely important in feeding human civilization?
18. One of the last statements made in this documentary is that “plants fuel the diversity of life on Earth.” Explain how adaptations have led to so many different types of plants.