

Plant Adaptations: How do plants survive in different environments?

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Session Goals

1. Have guests identify characteristics of plants from different environments.
2. Explain the specific adaptations and what they do.
3. Demonstrate the importance of water acquisition and availability shapes plant growth and adaptation.

Background

This activity is exploratory. The main goal of the activity is to demonstrate to guests the characteristics of plants that grow in different environments. We used desert, tropical, and aquatic plants. After identification of characteristics, the goal is to explain how or why plants have adapted certain structures (*e.g.*, aerenchyma in aquatic plants). Adaptations are usually related to water availability. Ideally, guests will point this out, but you can do that if they don't get there themselves.

Activities

Activity #1 – Characteristics of plants from different environments

Desired Learning outcomes:

1. Explore differences among plants from dry, wet, and tropical environments

Materials:

1. Plant samples
 - a. We used samples from the CBS greenhouse's desert, tropical, and aquatic habitats
2. Tree cross sections
3. Dissecting microscope
Magnifying glass

Lesson:

Guests will be able to see more obvious differences among the plants from the different environments. When identified, explain to them what specific things are adapted to do. If interested, guests can view tissues under a microscope.



Activity #2 – Create a plant

Desired Learning outcomes:

1. Visitors can apply their ne knowledge about different plants to create their own species

Materials:

1. Paper
2. Crayons and/or markers

Lesson:

Guests can choose their favorite environment/biome and create their own unique plant that is adapted to that environment.

Recommended age range

Activities for Age 3 to adult

Recommended citation for this lesson plan:

Jessica Bieber. 2016. Plant Adaptations: How do plants survive in different environments? marketsci.org

