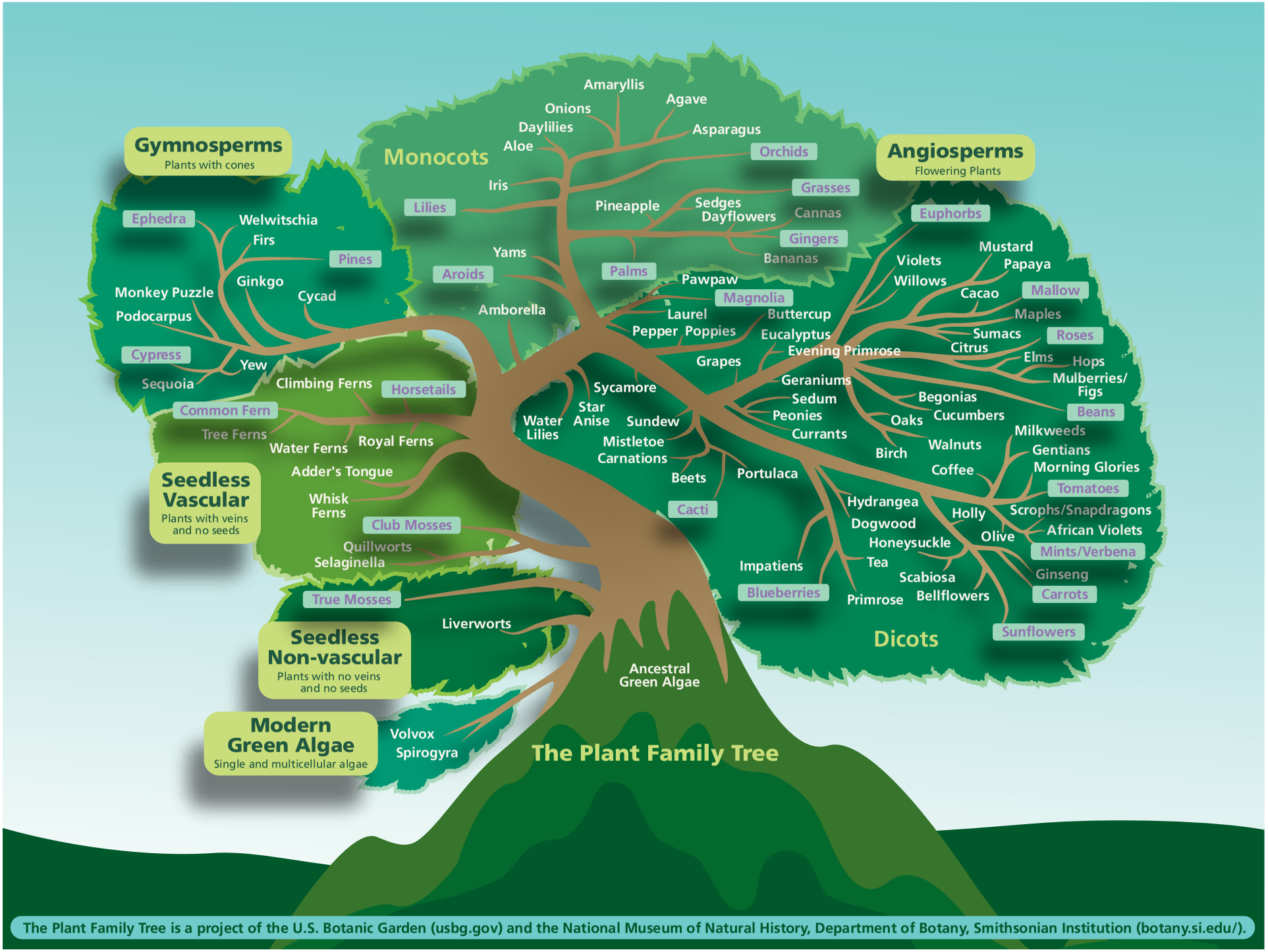
How Plants Work: Are Plants Like Us?

Student's Edition

United States Botanic Garden



The Plant Family Tree is a project of the U.S. Botanic Garden (usbg.gov) and the National Museum of Natural History, Department of Botany, Smithsonian Institution (botany.si.edu/).

Are Plants Like Us?

Do you really grow like a weed?

Exploring the Conservatory…
Follow your teacher or adult leader into Plant Exploration. For this activity, you will need a partner. Once you have chosen your partner, look around at all the different plants in Plant Exploration.

Choose a plant.
Which plant did you choose? _____
Now compare your plant to your partner.
_____

THINK TANK!
How are humans and plants the same? How are they different?
While looking at your partner and your plant choice, answer the following questions in the space provided:

List three things both the plant and your partner can do:
(Example: eat)
1. _____ 2. _____ 3. _____

List three things the plant can do that your partner cannot do: (Example: make oxygen)
1. _____ 2. _____ 3. _____

List three things your partner can do that the plant cannot do: (Example: walk around)
1. _____ 2. _____ 3. _____

Dig Deeper …
You be the botanist! Venture into the Jungle and climb up to the canopy. The U.S. Botanic Garden wants you to think about the ways that plants use light, water, and nutrients.

Once you are on the canopy walk, look at all the epiphytes (bromeliads and orchids) in the surrounding trees. Choose one epiphyte and draw it in the space below:

Plant Name: _____

Epiphyte:
An epiphyte is a plant that grows on another plant for support. It is not parasitic, but uses the host plant for support only. Epiphytes can be found in many different environments all over the world, but many of the most beautiful come from the rain forests and can be found high up in the tree canopy.

Think Tank!
How do epiphytes get light?

How do they get water?

How do they get nutrients?

Photosynthesis:
The process a plant uses to combine sunlight, water, and carbon dioxide to produce oxygen and sugar (energy).

Why do you think some plants are epiphytic? _____

_____

Venture into World Deserts.
Observe all the cacti in the room.
Choose a cactus. Draw it in this space.

Plant Name: _____

Think Tank!
Why do cacti look the way they do?

How do they retain water?

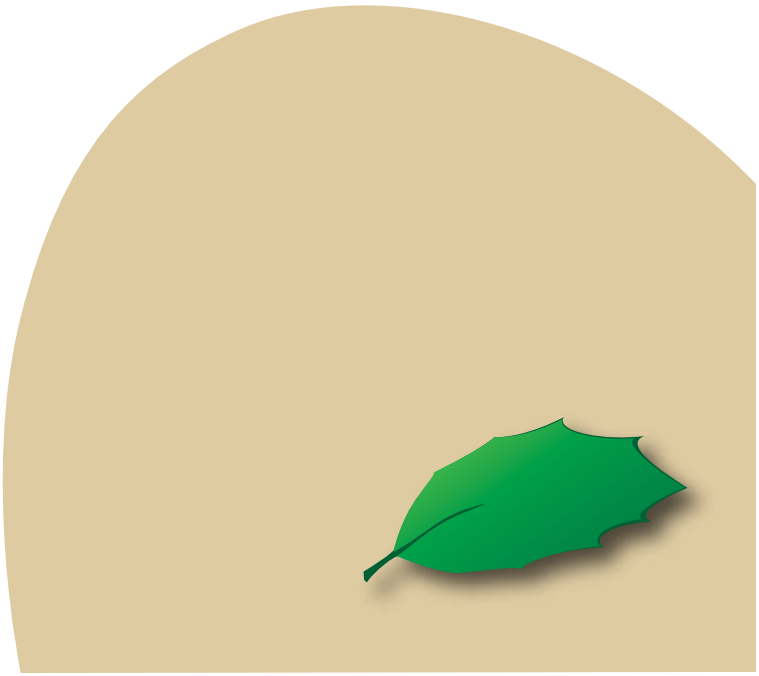
How do they get nutrients?

How do plants in the desert survive when the desert typically receives less than 10 inches of rain a year?

_____

_____

What Did You Learn?

Consider the following statement: Plants are like humans because both need energy to survive. However, plants are different because they capture energy from the sun and can make their own food.

Is this statement true or false? Why?