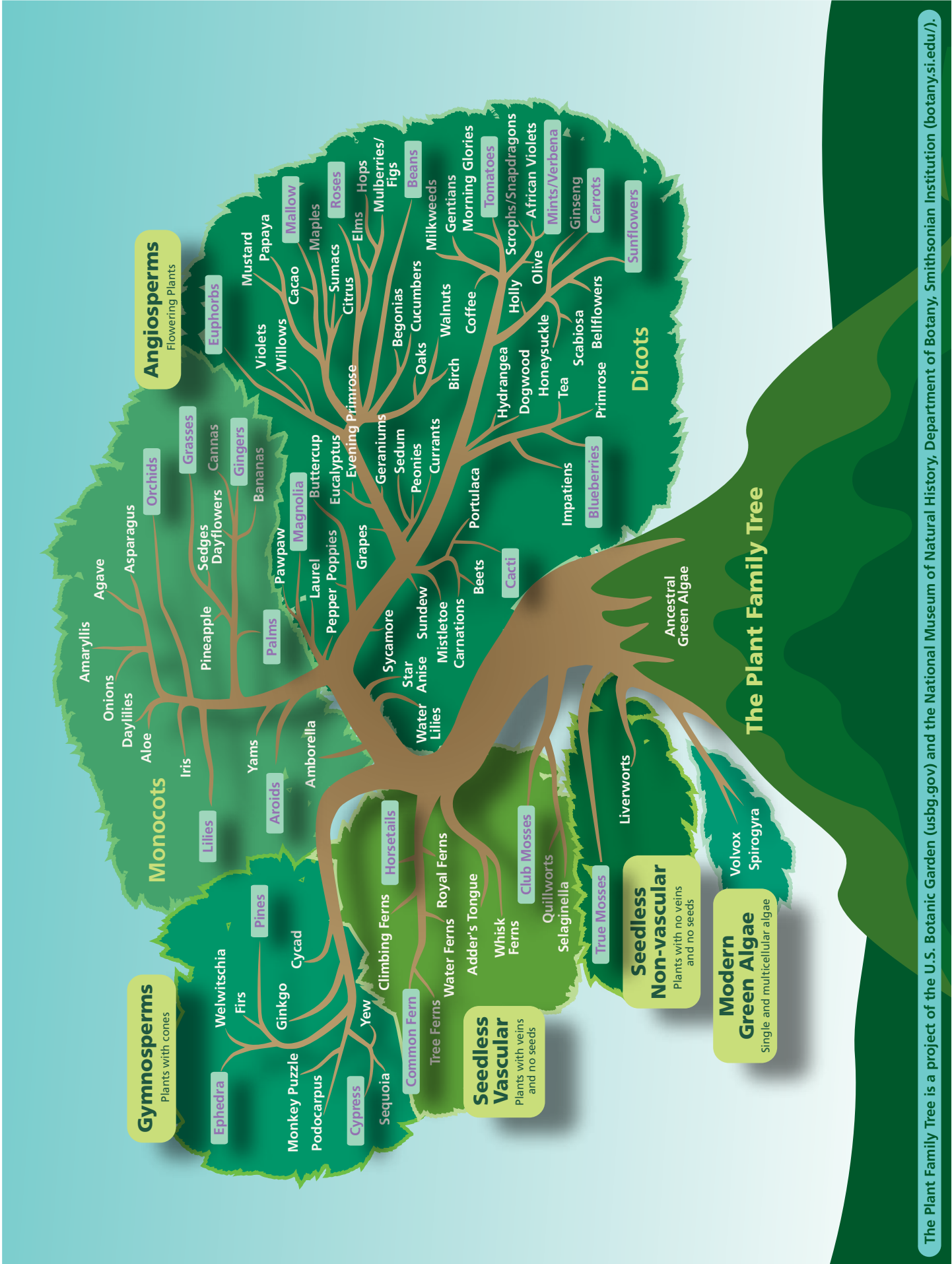


How Plants Work: Are Plants Like Us?

Student's Journal



UNITED STATES
BOTANIC GARDEN
www.usbg.gov



Angiosperms
Flowering Plants

Monocots

Gymnosperms
Plants with cones

Seedless Vascular
Plants with veins and no seeds

Seedless Non-vascular
Plants with no veins and no seeds

Modern Green Algae
Single and multicellular algae

Dicots

The Plant Family Tree

Are Plants Like Us?

Do you really grow like a weed?

Exploring the Conservatory...

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



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. _____

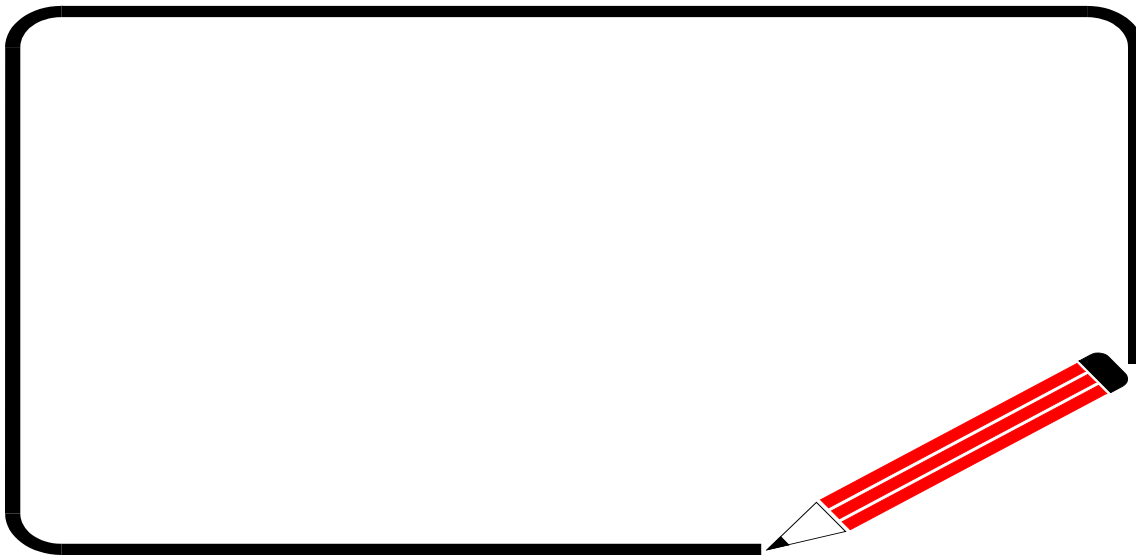
List three things your partner can do that the plant cannot do: (Example: walk around)

1. _____ 2. _____ 3. _____



Dig Deeper...

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



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?

