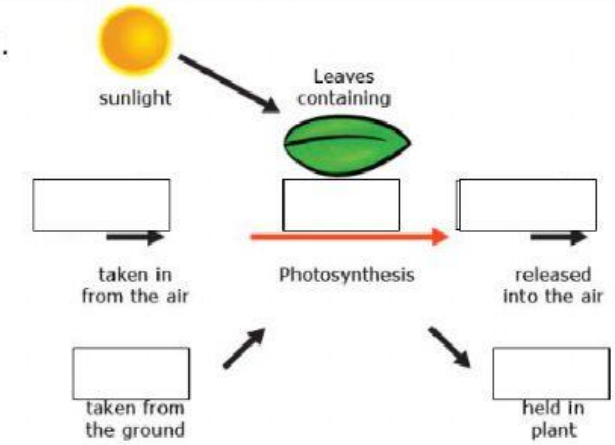
5Es		SOL: 4.2 Living Systems and Processes
		Scientists at Work: 50 minutes
		Time:

Evaluate 4.2a The survival of plants and animals depends on photosynthesis

1.



oxygen
water
carbon dioxide
sugar
chlorophyll

2. Which plant process is pictured?

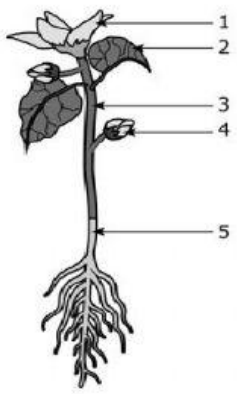
a) Pollination
b) Photosynthesis
c) Fertilization
d) Carbon dioxide

3. Which of the following are released during the process of photosynthesis? Select all that apply.

water	carbon dioxide	sunlight
oxygen	chlorophyll	sugar

Evaluate 4.2b Plants and animals have different structures and processes for obtaining energy.

1.

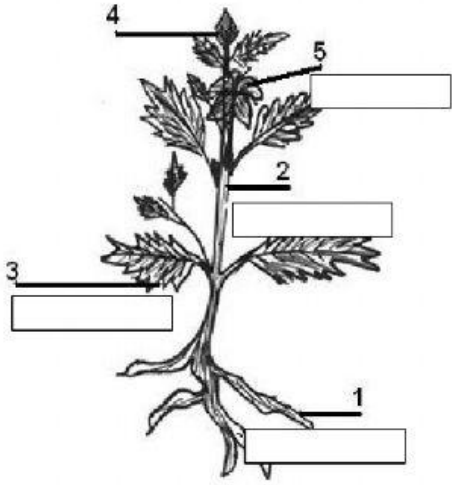


What are the functions of #2 on the diagram?

Anchor the plant
Absorb sunlight
Support the plant
Perform photosynthesis
Take in water
Allow movement of water and nutrients

2. Label the flower appropriately.

stem
roots
leaf
bud
petal
fruit



3. Which of the organisms shown below cannot make its own food and must eat other organisms? Select all correct answers.

4. Water lilies grow in ponds. Their roots grow in the sand and dirt at the bottom of ponds. Their leaves and flowers sit on the top of the water. Stems connect the roots to the leaves and flowers.

above the surface

below the surface

How does the stem of a water lily help the plant grow?

A. by keeping the flowers out of the water so they cannot make seeds

B. by letting the leaves reach the top of the water so the plant can get sunlight

C. by taking in food from the water so the plant can eat

D. by holding the roots up so that they do not get buried by sand and dirt

Evaluate 4.2c: Plants and animals have different structures and processes for creating offspring

1. Some plants have developed brightly colored flowers and sweet-smelling nectar to help with the process of pollination. These plants most likely pollinate using --

*Select all the ways in which flowers can become pollinated.

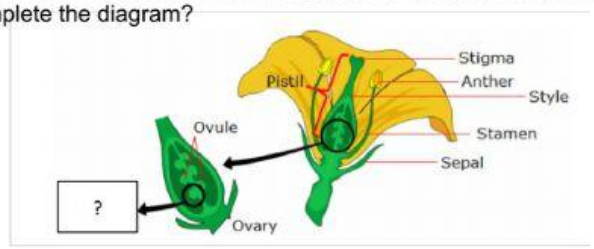
wind	sunlight	birds
butterflies	rain	oxygen

2. What is the name of the process that refers to pollen moving from the male part to the female part of the flower?
   a) photosynthesis
   b) sepal production
   c) pollination
   d) production

4. Which animal behavior would help an individual animal make new individuals and increase population size?
   a) a frog blending in to its environment
   b) a zebra having hooves
   c) a skunk spraying a smelly scent
   d) a lizard laying eggs

5. The stem of a plant carries nutrients around the plant. Which part of an animal has a similar function?
   a) muscles
   b) nerves
   c) brain
   d) blood vessels

6. Pollen has been transferred from the stamen to the pistil. What label would complete the diagram?



a)petal
b)pollen
c)nutrients
d)seed