

ECOnnections

Summary

A fill-in-the-blank activity emphasizing connections among the different parts of the ecosystem.

Objectives

Students will understand various connections in the ecosystem such as parasitism, plants as shelter for animals, pollination, and that ecosystems are more than just food chains. This activity also addresses vocabulary and grammar.

Standards

Science: Strand II, Standard II (Life Science), BMI, PS1: Identify the components of habitats and ecosystems (producers, consumers, decomposers, predators); PS2: Understand how food webs depict relationships between different organisms; BMII, PS1: Know that plants and animals have life cycles that include birth, growth and development, reproduction, and death, and that these cycles differ for different organisms.

Language Arts: Strand I (Reading and listening for comprehension), Standard I, BMI-D, PS 1 and 2: Apply reading strategies and interact with the text.

Career Readiness: Standard IV (demonstrate responsible and ethical workplace behaviors), BM II: Demonstrate goal direction, self discipline, and task commitment in the completion of assignments.

Time

20 minutes

Materials

Per student:

- a copy of the ECOnnections pages
- a pencil

Background information

It may be necessary to explain some of the terms used in the word bank before starting the activity. (Definitions can be found in the glossary.) It may also be helpful to have students learn the terms producer, consumer, and decomposer before the activity, in addition to the other part of the ecosystem: the non-living things (sun, air, water, and soil). These terms can be used when illustrating how each part of the ecosystem is important for the sound functioning of the ecosystem as a whole. See the Eco Word Puzzle for teaching ideas.

Additional fun facts include:

1. Coyotes are omnivores and don't just eat other animals.
2. Hummingbirds are the only birds that can fly backwards.



3. Other cavity-nesting birds include kestrels (a type of hawk) and owls.
4. Fungi and bacteria are the two main kinds of decomposers.
5. Rotating and aerating soil is helpful for microorganisms that keep the soil healthy and important for nutrient dispersal.
6. Piñon jays can store up to 50 piñon seeds in their throats at one time, spreading them at cache sites for the winter.
7. Mistletoe usually harms but doesn't kill its host tree.
8. Cactus wrens use cacti as a natural defense against predators.
9. The more forest land we protect, the cleaner our air will be.
10. Insects, birds, bears, and other animals all use snags for food, shelter, or a place to search for prey.

Answers

- | | |
|------------------|-------------------|
| 1. Predator | 6. Seed dispersal |
| 2. Pollinate | 7. Parasite |
| 3. Shelter | 8. Reproduction |
| 4. Decompose | 9. Oxygen |
| 5. Soil rotation | 10. Snag |

Spanish Answers

- | | |
|------------------------|---------------------------|
| 1. Depredador | 6. Dispersion de semillas |
| 2. Polinize | 7. Parásito |
| 3. Refugio | 8. Reproduccion |
| 4. Descomponen | 9. Oxígeno |
| 5. Rotación de cultivo | 10. Tocón |

Procedure

1. Hand out EConnections sheets.
2. Have students individually fill in the blanks of the ten sentences using the word bank. They may use each word only once.

Conclusion

After everyone has completed the activity, review and discuss the sentences, stressing the concept of interconnectedness in an ecosystem.



ECOnections

Browse the list of ecological terms below and use them to fill in the blanks. Use each word only once.

Shelter

Pollinate

Oxygen

Snag

Seed dispersal

Decompose

Predator

Parasite

Soil rotation

Reproduction



1.

A coyote is a _____.

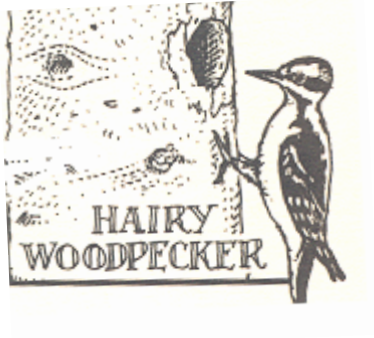
A rabbit would be its prey.



2.

As a hummingbird drinks the nectar of different flowers it may _____ them.





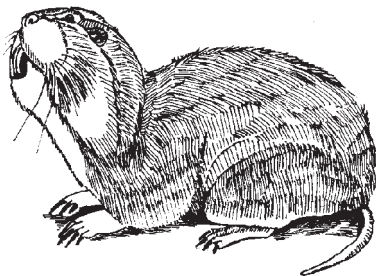
3.

The soft interior of trees provides _____ for woodpeckers and other birds.



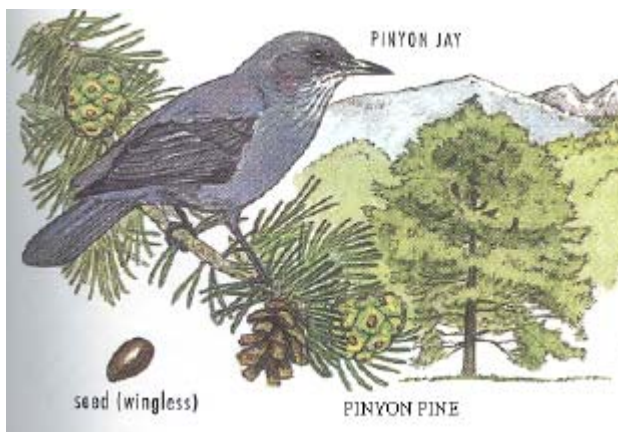
4.

Mushrooms and other types of fungi _____ , or break down, dead plants and animals.



5.

The digging of a pocket gopher is important for _____.



6.

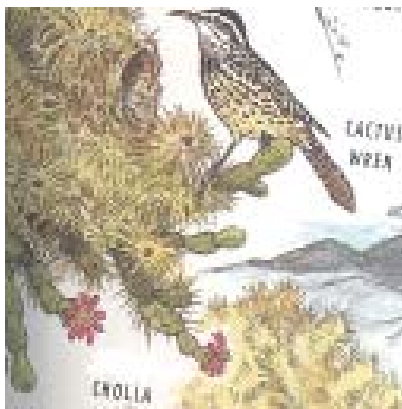
The Piñon jay buries piñon nuts under logs, rocks, and soil; it helps the tree with _____.





7.

Mistletoe sucks the water and nutrients out of “host” trees. Like a leech, it is a type of _____.



8.

Cactus wren eggs hatch from a nest in cholla cacti. The process of creating new young is called _____.

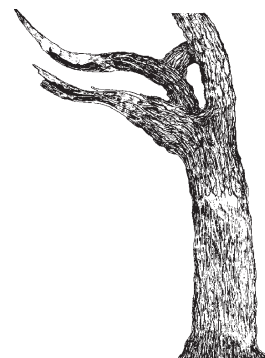


9.

Ponderosa pines and other plants clean up our air. They breathe in carbon dioxide and breathe out _____.

10.

Dead standing trees provide homes and perches for animals. A dead standing tree is called a _____.



ECOnectiones

Observa la lista de términos a seguir y utilízalos para rellenar la raya en blanco. Usa cada palabra sólo una vez.

Refugio

Polinize

Oxígeno

Tocón

Dispersión de semillas

Descomponen

Depredador

Parásito

Rotación de cultivo

Reproducción



1.

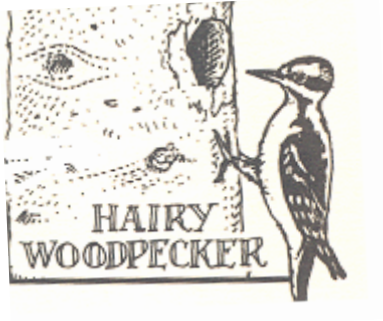
Una coyote es un _____.
Su presa sería un conejo.



2.

Cuando un colibrí liba el néctar de diferentes
flores, puede que éste las
_____.





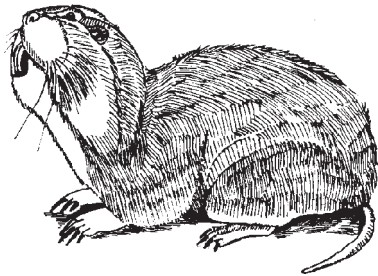
3.

El interior blando de los árboles provee _____ para los pájaros carpinteros y otros pájaros.



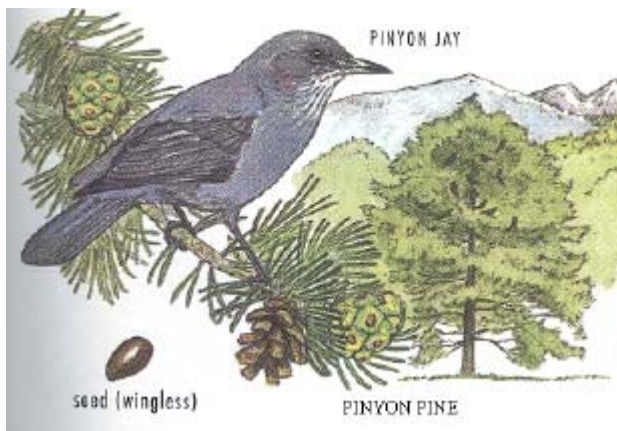
4.

Los hongos, al igual que otros tipos de hongos, _____, o desintegran a las plantas y a los animales muertos.



5.

El cavar de una tuza es importante para la _____.



6.

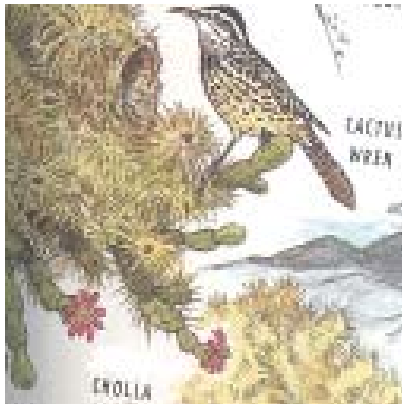
La urraca piñon entierra las semillas de piñon debajo de los troncos, las rocas, y la tierra; esto ayuda al árbol con la _____.





7.

El muérdago chupa el agua y los nutrientes del árbol huésped. Como la sanguijuela, el muérdago es un tipo de _____.



8.

La matraca del desierto incubaba sus huevos en un nido que hace en el cardenche. Al proceso de crear nueva vida se le llama la _____.



9.

Los pinos Ponderosa, al igual que otras plantas, prifican nuestro aire. Éstos absorben el dióxido de carbono y exhalan_____.

10.

Los árboles muertos aún en pie sirven como hogar y percha para muchos animales. Al árbol muerto aún de pie se le llama_____.

