



Utah's Ecosystems Post-trip Quiz

1. What is an "ecosystem?"

"Eco" means home, and a "system" is a collection of relationships. An ecosystem is all the plants, animals, and other living and nonliving organisms that live in a specific place, and the relationships that tie them together.

2. Name three ecosystems that occur in Utah, and one characteristic about each that makes it different from the others.

Desert – Deserts are dry; can be very cold or very hot; obtaining water is most important to the plants and animals that live there.

Mountain/forest – It is colder in the mountains; there is less oxygen; sunlight is more intense. Plants have a shorter season in which to grow.

Wetlands – Wetlands are land that wet most or much of the time. It is an "edge" community, where an aquatic ecosystem overlaps with the land ecosystem. Because of this overlap there is more "biodiversity" or different types of species in a wetland. Wetlands help keep our water clean, help prevent flooding, provide places for migrating birds to rest and eat, and give places for birds and other animals to raise families.

3. How much precipitation does an arid desert receive each year?

An arid desert receives less than 10 inches of precipitation per year.

4. How much precipitation does a semi-arid desert receive each year?

A semi-arid desert receives 10 to 20 inches of precipitation per year.

5. What is an "adaptation" for a plant or animal?

An adaptation is something about an animal or plants body or behavior that helps it thrive in its ecosystem.

6. Name one adaptation a desert plant might have to obtain, store, or defend water?

A desert tree might have a taproot to get ground water. The cactus has shallow roots to collect rainwater, and a thick stem where it stores water. It has spines to protect itself. The creosote bush has a shallow, widespread root system to collect rainwater, and also puts a chemical in the soil that prevents other creosote from planting themselves right next to it.

7. Name a desert animal and one adaptation it has for surviving in the desert.

A Mohave Desert Tortoise has scaly skin, a hard shell, and can dig deep burrows where it lives underground most of the year to conserve energy and survive. It holds water in its body, and gets most of its water from the plants it eats. It can go a whole year without drinking anything.

8. Name one mountain/forest tree and one adaptation it has to survive in high altitude.

The Quaking Aspen tree performs photosynthesis (makes food) on both sides of its leaves and with its trunk. It creates sunscreen for its trunk to guard against the high-elevation sunlight. Rather than trying to plant seeds, an aspen spreads out its roots and shoots up clones from this root system, so a "stand" or group of aspens is actually a single tree.

9. A wetland is considered an "edge" ecosystem. (Circle one): **True** False

10. What is a "keystone" species?

A keystone species is a species that, by simply living its life, helps maintain and create a viable ecosystem for other plants and animals. (An example of a keystone species is the pika, of the mountain/forest ecosystem.)