Name:



Symbiotic Relationships

*The following situations illustrate various ecological relationships.*

Identify which relationship is described in each situation using the 3 options below.

Parasitism

Mutualism

Commensalism

1. A mite (an eight-legged organism similar to a spider) lives in the base of the eyelashes of people who use mascara. It feeds on the mascara; it does not seem to harm people.

Relationship:

2. A coyote captures, kills, and eats a rabbit.

Relationship:

3. A tapeworm lives in the intestines of a dog. It absorbs food the dog has eaten and grows larger in the process. The dog become weaker from malnutrition.

Relationship:

4. Birds eat insects that the hooves and muzzles of grazing cows disturb.

Relationship:

5. The flower of the yucca plant provides the only location where the yucca moth can lay her eggs. In the process, the moth pollinates the yucca flower.

Relationship:

6. Cleaner shrimp living in the ocean eat ectoparasites (parasites on the outer surface of the animal) off fish.

Relationship:

7. Bacteria that live on the surface of our teeth require sugar from our food to survive. A by-product of their metabolism (body processes) decays the enamel of teeth

Relationship:

8. A 3-point buck is killed by a hunter.

Relationship:

9. Bacteria in the intestines of cows produce vitamin C, enabling cows to skip orange juice at breakfast.

Relationship:

10. Bass found in warm water lakes of Colorado eat gizzard shad, a small fish grown and raised by the Colorado Division of Wildlife.

Relationship:

11. Nitrogen-fixing bacteria live in the roots of some plants. They provide nitrogen in a form the plants need and obtain a “home” and nourishment from the plants.

Relationship:

12. Nematodes (a round worm) live in plants and gain nourishment from the plant but do not seem to harm it.

Relationship:

13. E. coli bacteria live in massive quantities in the large intestine of humans. They produce Vitamin K. It is not known if this is absorbed into the human’s system or not. If it is, it aids in blood clotting.

Relationship:

14. Aspen trees provide shade for small spruce and fir trees. These would not grow as well in direct sunlight.

Relationship:

15. Bighorn sheep take in worm eggs when grazing. The worm egg hatches in the intestine and the larvae migrate to muscle tissue. When the larvae mature, they bore into capillaries and float to the lungs, where they form cysts. Large numbers of these can affect the breathing of the bighorn sheep.

Relationship:

16. Insects lay their eggs in the buds of spruce trees. The insect larvae live off the plant material and prevent the bud from developing normally.

Relationship:

