

Changing Food Webs

Grade 4 • SCIENCE • Using simple food webs to predict how a change in one population can affect other organisms in an ecosystem. • Standards: 5-LS2-1

Read each food web or food chain carefully. Then predict what will most likely happen to the population mentioned in the question when the change occurs.

1. A rabbit eats grass. A fox eats the rabbit. If the grass population decreases, what will most likely happen to the rabbit population?
2. Hawks eat mice. Mice eat seeds. If the hawk population increases, what will most likely happen to the mouse population?
3. Caterpillars eat leaves. Birds eat caterpillars. Snakes eat birds. If the caterpillar population increases, what will most likely happen to the bird population?
4. Deer eat plants. Wolves eat deer. If all the wolves disappear from the area, what will most likely happen to the deer population?
5. Grasshoppers eat grass. Frogs eat grasshoppers. Herons eat frogs. If the grass population decreases, what will most likely happen to the frog population?
6. Shrimp eat algae. Small fish eat shrimp. Large fish eat small fish. If the shrimp population increases, what will most likely happen to the algae population?
7. Beetles eat dead leaves. Spiders eat beetles. Lizards eat spiders. Owls eat lizards. If the beetle population decreases, what will most likely happen to the spider population?
8. Both rabbits and squirrels eat acorns. Coyotes eat both rabbits and squirrels. If the rabbit population disappears completely, what will most likely happen to the squirrel population?
9. Worms eat rotting plants. Robins eat worms. Crickets also eat rotting plants. Hawks eat both robins and crickets. If the worm population decreases, what will most likely happen to the cricket population?

10. Clover and wildflowers both grow in a meadow. Bees drink nectar from both plants. Rabbits eat clover but not wildflowers. Foxes eat rabbits. If the clover population increases greatly, what will most likely happen to the wildflower population?

Answer Key — Changing Food Webs

For the teacher / parent. Do not distribute with the worksheet.

1. The rabbit population will decrease. *(Rabbits depend on grass for food, so less grass means fewer rabbits can survive.)*
2. The mouse population will decrease. *(More hawks will eat more mice, causing the mouse population to go down.)*
3. The bird population will increase. *(More caterpillars provide more food for birds, so more birds can survive.)*
4. The deer population will increase. *(Without wolves hunting them, more deer will survive.)*
5. The frog population will decrease. *(Less grass means fewer grasshoppers, which means less food for frogs.)*
6. The algae population will decrease. *(More shrimp will eat more algae, causing the algae population to go down.)*
7. The spider population will decrease. *(Spiders eat beetles, so fewer beetles means less food for spiders.)*
8. The squirrel population will decrease. *(Without rabbits to eat, coyotes will hunt more squirrels for food.)*
9. The cricket population will decrease. *(With fewer worms, robins will eat more crickets, and hawks will also eat more crickets since there are fewer robins available.)*
10. The wildflower population will decrease. *(More clover will take up more space, water, and sunlight that wildflowers need to grow.)*