

NAME _____

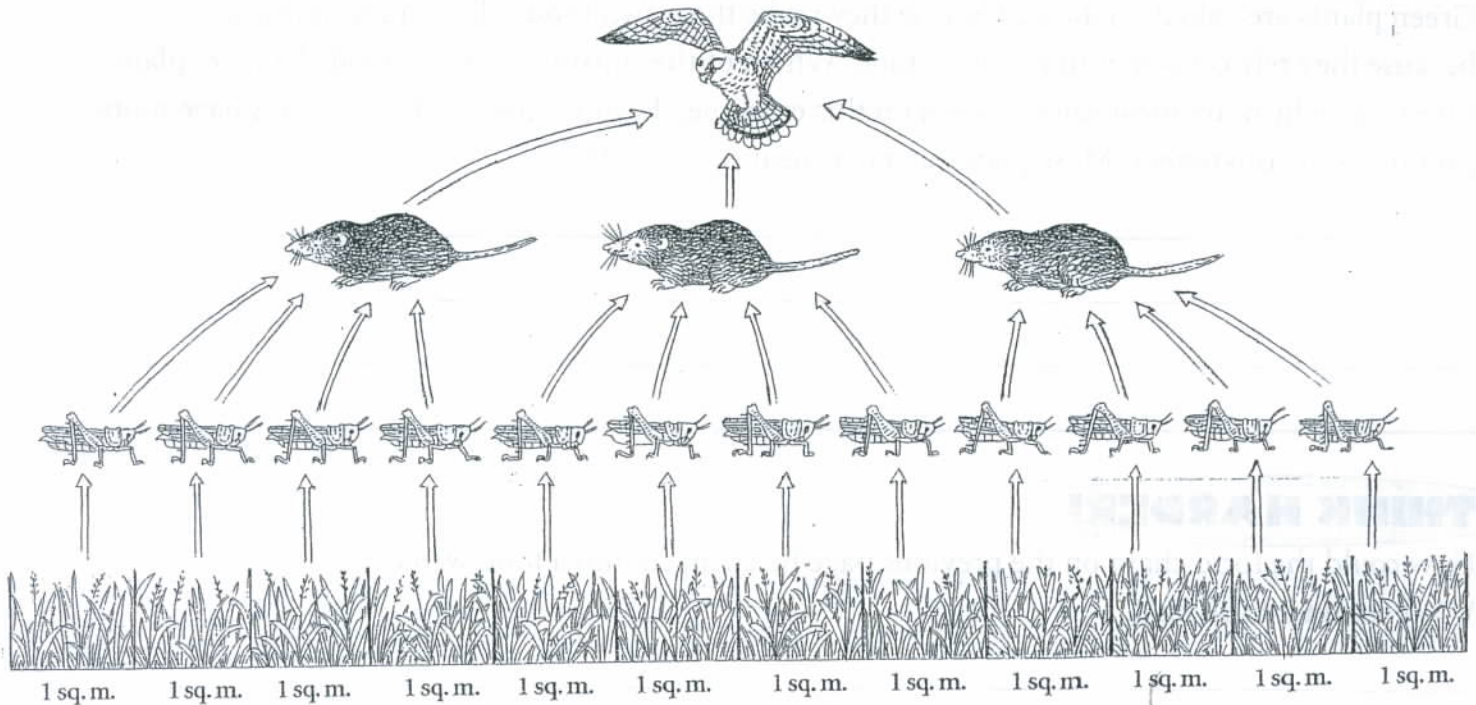


From Grass to Hawk

Animals depend on plants and other animals in their ecosystem for food. All these organisms are linked to each other in food chains. If something happens to one part of a food chain, all the organisms up that chain are affected.

THINK & PREDICT

? Look at the food-chain diagram below. What would happen if half of the grass (6 square meters) was turned into a parking lot? Would grasshoppers be affected? _____
 Would shrews? _____ Would the hawk be affected? _____
 What would happen if 2 square meters of grass were turned into a sidewalk? Would grasshoppers be affected? _____
 Would shrews? _____ Would the hawk be affected? _____



OBSERVE & EXPERIMENT

1 Choose a colored pen. Start at the far left of the grass on the diagram. Cross out half (six meters) of the grass.

YOU'LL NEED

- 2 different-colored pens or pencils

- 2 Cross out all the grasshoppers that depend on that grass for food. How many grasshoppers did you cross out? _____
- 3 Cross out all the shrews that depend on the lost grasshoppers for food. (Even if only one grasshopper is lost, a shrew won't have enough food to survive. Cross out that shrew as well.) How many shrews did you cross out? _____
- 4 Cross out the hawk if it depends on the lost shrews for food. (Even if only one shrew is lost, a hawk won't have enough food to survive.) Did you cross out the hawk? _____
- 5 Using the other pen, cross out two meters of grass from the other side of the diagram.
- 6 Repeat steps 2 to 4. How many grasshoppers did you cross out? _____ How many shrews? _____ Did you cross out the hawk? _____

WHAT HAPPENED?

Read your predictions. Which were correct and which were not? _____

According to this food-chain diagram, how much grass does a hawk need to survive? _____

THINK & WRITE

Green plants are called *producers* because they make their own food. All animals are *consumers* because they rely on something else for food. Which of the consumers in the food chain are plant eaters and which are meat eaters? Based on this example, do you think most ecosystems have more producers or consumers? More plant eaters or meat eaters? Why?

THINK HARDER!

How could the food chain on the previous page be changed into a food web?
What would it look like?
