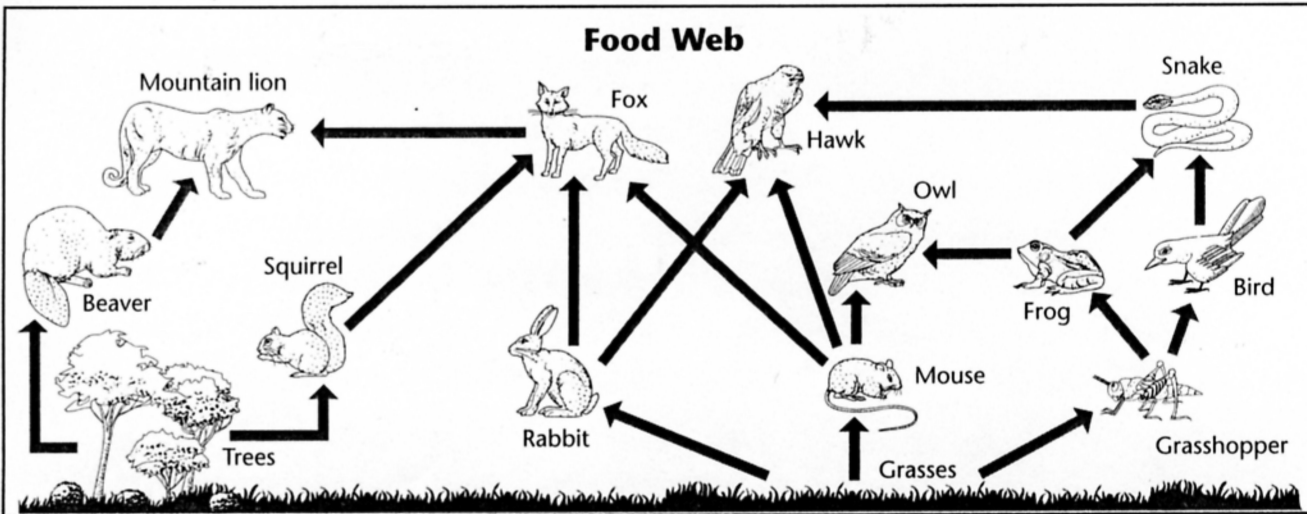


Critical Thinking Diagram Worksheet 46-1



PART A Use the information shown in the diagram to complete the following.

1. Identify a food chain that consists of only a producer, a primary consumer, and a secondary consumer.

2. Identify a food chain that consists of a producer, a primary consumer, a secondary consumer, and a tertiary consumer.

3. Identify three herbivores shown in the diagram. _____
4. Identify three carnivores shown in the diagram. _____
5. Add decomposers to the food web by writing the term Decomposers in the correct place and adding arrows as appropriate.

6. What do the arrows indicate about the flow of energy through the community. _____

PART B Complete the table by classifying each organism shown in the food web in its correct trophic level. Some organisms may be listed in more than one trophic level.

| TABLE 1 CLASSIFYING ORGANISMS IN TROPHIC LEVELS | | | |
|---|-------------------|---------------------|--------------------|
| PRODUCERS | PRIMARY CONSUMERS | SECONDARY CONSUMERS | TERTIARY CONSUMERS |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Study Skills Worksheet 46-1

Interpreting Diagrams

Diagrams are a useful and efficient way to communicate information. Two types of diagrams used by ecologists to show the movement of matter (food) and energy through ecosystems are the food chain and the food web. You can think of both kinds of diagrams as flow charts that show the movement of food and energy through the following trophic levels: producer, primary consumer, secondary consumer, and tertiary consumer. The diagrams differ in the amounts of information they show. For example, a food chain shows only one energy transfer path for a community. A food web shows several energy pathways by linking several different food chains together.

PART A Answer the questions about the food chains shown below.



Figure 1



Figure 2



Figure 3

1. In the food chain shown in Figure 1, what organism is the producer? _____
2. Identify the following organisms in Figure 1:
 - a. primary consumers _____
 - b. secondary consumers _____
 - c. tertiary consumers _____
3. What do you observe about the producers and primary consumers in Figures 1 and 2? _____

4. Identify the following organisms in Figure 3:
 - a. primary consumers _____
 - b. secondary consumers _____
 - c. tertiary consumers _____
5. What do you observe about the primary consumer in Figure 3 and the secondary consumer in Figure 2? _____

PART B ~~On the back of this worksheet,~~ ^{your own paper} Below make a food web using the food chains shown in Figures 1, 2, and 3 above. Use the food web shown on page 844 of your text as a model if you need help.