

Name: _____ Date: _____ Bell: _____



Activity: Constructing Food Webs

Question: How do food webs and interactions between species vary among different ecosystems?

Materials:

- Student sheets
- Food web cards
- Scissors
- Glue
- Pen or pencil
- Construction paper or poster board

Procedure:










1. Remove your food web cards from the envelope. Identify the trophic level (producer, primary consumer, secondary consumer, decomposer) in the observation chart.
2. Arrange your cards to show 3 different food chains. You may use the same species in multiple food chains. Record your food chains in the food chain chart.
3. Arrange your cards into a food web that shows connections between the three food chains you already put together. Draw your food web in the space provided by putting the name and sketch of each species at their appropriate trophic level and arrows showing energy passing from one species to another. Use each species only once. Remember multiple arrows can go to and from a given species based on what they eat and what eats them.

What kind of ecosystem does your food web belong to? _____

Observations:

| Organism | Trophic Level |
|----------|---------------|
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Food chains:

| | <u>Food Web #1</u> | <u>Food Web #2</u> | <u>Food Web #3</u> |
|--------------------|---|--|---|
| Decomposer | | | |
| Secondary Consumer |  |  |  |
| Primary Consumer |  |  |  |
| Producers |  |  |  |

Food Web:

Decomposers

Secondary Consumers

Primary Consumers

Producers

Analysis Questions:

1. What trophic level is the most important in your ecosystem? Explain your reasoning.

2. What would happen in your food web if the populations of one of your secondary consumers doubled?

3. If one of your primary consumers were to become extinct, what would be the consequences on the other species?

4. Invasive species are often extremely disruptive to food webs due to lack of predation. If an invasive primary consumer were to enter your food web, what would be the ecological consequences?

5. What would happen to your food web if secondary consumers were removed from the ecosystem?

6. The role of a decomposers is to break down dead material and recycle nutrients back into the ecosystem. Most of these species are bacteria, fungi, and specialized insects. What would happen if the decomposers disappeared from an ecosystem?

Conclusion:

Compare your food web to the food web of another type of ecosystem. Are there any similarities between the food webs? What makes each food web unique and different?
