

Name \_\_\_\_\_



## HANDS-ON ACTIVITY

# Modeling Matter Moving within an Ecosystem

### Objective

**Collaborate** with a partner to choose and model an ecosystem. Use this model to show how matter moves among organisms and their environment.

What question will you investigate to meet this objective?

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### Materials

- materials to model
- scissors
- index cards
- markers
- paste
- string or yarn
- stapler

### Procedure

**STEP 1** With your partner, choose an ecosystem to model. Research the organisms you will include in your model ecosystem.

Which ecosystem are you researching?

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Use your research to complete the table below.

Ecosystem	
Energy source	
Producers	Consumers
Decomposers	

**Name** \_\_\_\_\_

**STEP 2** Discuss with your partner how you want to model your ecosystem. For example, you could choose to make a diorama, create a poster, or design a digital model.

Describe how you will model your ecosystem.

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**STEP 3** Start by making the pieces of your system. Label each of your organisms as a producer, consumer, scavenger, or decomposer.

**STEP 4** Arrange the organisms into food chains.

Based on your research, how do the organisms interact to move matter through the ecosystem?



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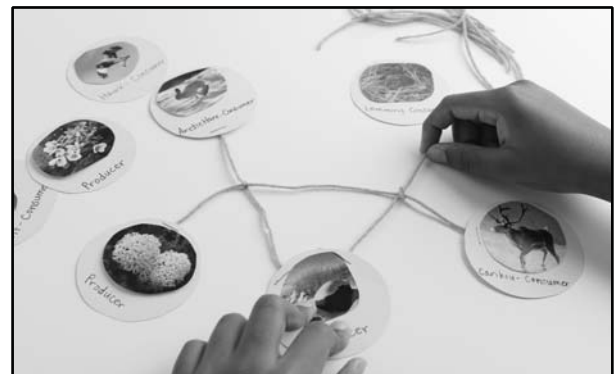
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**STEP 5** Find the food chains that overlap. Connect the chains together. Your end result should look like a food web.

What is the relationship between food chains and food webs?



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## Analyze Your Results

**STEP 6** Compare your food web with those of other groups. How are they alike? How are they different?

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**STEP 7** Predict what might happen if one of the organisms in your web disappeared. Remove one of the organisms from your web. Describe the results.

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## Draw Conclusions

**STEP 8** Is your food web a system? If so, what are the components in the food web?

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**STEP 9** State a claim that is related to your question at the beginning of this activity.

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Cite evidence from your food web to support your claim.

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**STEP 10** Write another question you would like to ask about how matter moves through an ecosystem.

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