

Ecosystems Activity Bag

A Closer Look at Ecosystems: Student Activity Guide

An ecosystem is all the living things in an area, and how they interact with each other and the world around them. There are different types of ecosystems based on where they are located. There are many different living things that play a role in each ecosystem. In this activity, you will take a closer look at different ecosystems.

These directions will get you started. Your teacher will be in contact to guide you and provide information.

Materials From The Bag

- Ecosystems Cards

Part 1: Exploration

1. Using scissors, cut out all of the Ecosystems Cards.
2. Sort the cards into groups based on similarities of your choice. You may have as many groups as you want. Each group must have two or more cards.

How did you group the pictures? Which cards were difficult to place? Why were those cards difficult to place and how did you address them?

3. Sort the cards into groups based on where you think they live.

What's happening...

All living things on Earth are found on land or in water. Ecosystems that are found on land, like forests and grasslands, are called **terrestrial ecosystems**. Ecosystems that are found in water are called **aquatic ecosystems**. Aquatic ecosystems can be freshwater (ponds and lakes) or saltwater (oceans, estuaries, marshes).

4. Sort the cards into two groups: terrestrial and aquatic. *Explain how you placed the cards into terrestrial and aquatic groups. Which cards were difficult to place? Why were those cards difficult to place?*

What's happening...

Most organisms fit into a specific ecosystem, while some organisms, like bacteria and fungi, can live in both terrestrial and aquatic ecosystems. The sun is the source of energy for all ecosystems.

Part 2: Learning About Ecosystems

In this part, you will explore what makes a healthy ecosystem. A healthy ecosystem has a source of energy and supports living organisms.

1. Place the sun, tree, mouse, and fungus cards into a group.

These four cards are part of a healthy terrestrial ecosystem because:

- The sun provides the initial energy.
- The grass/tree receives energy from the sun and grows.
- The mouse receives its energy from eating the grass/tree.
- The fungus receives its energy when it breaks down the waste of the tree and the mouse.

What other cards could be added to this ecosystem? What role does each card play in the ecosystem? Provide evidence for your claim. Which cards would not be added to the ecosystem? Explain your reasoning.

Part 3: Creating Ecosystems

In this part, you will create different ecosystems.

1. Read each of the ecosystem descriptions below.
2. Select all the cards that you would expect to be in the ecosystem.
3. For each card describe their role in the ecosystem.

Forest Ecosystem

Forests have many trees (with needles or with leaves), shrubs, grasses and ferns, and a variety of animals.

Grassland Ecosystem

Grasslands have fertile soil and are covered with tall grasses. Some examples of animals that live in the grasslands are prairie dogs, bison, and grasshoppers.

Ocean Ecosystem

Oceans are large bodies of saltwater divided by continents. Oceans have many types of ecosystems depending on the conditions of that part of the ocean.