

At Your Service! Eco-services Discovery Hunt

Essential Questions:

What eco-services are provided on my school site?

Where are these eco-services provided on my site?

At a Glance:

Learners will discover places on their school site where different eco-services are at work.

Background Information:

Your school site is an ecosystem! Ecosystems provide eco-services to all living creatures free of charge. All of the departments of an ecosystem exist on a school site, although sometimes they are not immediately apparent. By pointing out an example of each Department at work on your site, learners will better understand how they work together, and how ecosystems are everywhere!

Getting Ready:

You will need your School Site Base Map for this activity. If you don't already have one see the activity titled, *Preparing a School Site Base Map for GEN Activities*. Mark the locations of the Discovery Hunt cards on the map (Control Points) and create clues by describing their locations and relationships to one another.

Be sure to include obvious landmarks in the location descriptions, such as buildings and parking lots, and to define distances with a common measure, such as a "pace" (an average distance between a learner's two feet when striding). This may require a demonstration.

Place the laminated Eco-service Discovery Hunt task cards in different areas of the school site prior to the hunt. Areas chosen for the cards should coincide with the topic of the card. For example, an Air Cleaning Department card should be placed where there are plants and trees.

Following this Hunt, learners can select 'checkpoints' for assessing ecosystem quality on their site.

Procedure:

1. Divide learners into teams with 3-4 learners. Have learners gather in their teams.
2. Pass out maps and answer sheets.
3. Provide an orientation to the map and reinforce map reading skills with the following questions and instructions:
 - Orient learners to the map i.e. Where are you now? Point to the direction you would have to go in order to get to the road, bus pick up area, gym, etc.

Location: outside

Objectives: *Learners will*

- 1) discover different areas of the school site ecosystem.
- 2) explain how these areas relate to the Garden Earth service departments.
- 3) Infer that these different eco-services work together in an ecosystem.

Skills: compares physical attributes, uses tools, asking questions that lead to investigations, mapping

Supplies:

- Site map
- Discovery Hunt Answer Sheet
- Eco-service Discovery Hunt task cards
- String and stakes for use in placing the cards

Subject: science, geography (map-skills)

Time: 30 minutes

- Locate the control points on the map. Ask additional questions to assure that the learners know how to use the map such as ‘Point to the direction you would have to go to find #4’. ‘What is the clue for #5?’
 - Tell learners ‘Locate the section on your map titled “Proofs of Discovery”. When you locate each site there will be a card tied to a tree or to another feature or stake at the site. On this card will be a question for you to answer. Enter the answer on your ‘Eco-services Discovery Hunt!’ work sheet. You can visit the discovery hunt sites in any order.
 - Remember, this is a team activity; you must stay with your group at all times.
 - Everyone will return in (# of minutes) by (state return time).
4. When all learners return, discuss their answers. If it was conducted as a competitive activity, acknowledge the winning team.

Discussion/Assessment:

Were you surprised at the number of eco-services provided by your school site?

How do these eco-services work together?

Is it possible to have one eco-service that stands alone or does each one need some aspect of at least one other?

Was it easy to use your map?

While participating in this hunt, did you discover features of your school site that you would like to add to your map?

Eco-Services Hunt: Task # _____

**The _____
Department**



Workers in this department such as preying mantids and ladybugs keep pests from taking over the planet.



Question:

What GEN department provides this eco-service?

Eco-services Hunt: Task # _____

The Air Cleaning Department



Breathe the rich clean air! The trees and other green plants breathe in dust and carbon dioxide gas and breathe out clean oxygen. Dust and certain air particulates also cling to the leaves and eventually are washed into the soil.



Question:

Can you name two important workers from the Air Cleaning Department?

Eco-services Hunt: Task # _____

The Biodiversity Department

WOW! Look at all the different plants in this area! The Biodiversity Department provides a wide variety of plants and animals that help keep our ecosystem healthy and attract wildlife to our site. The



plants and animals also have many uses to humans since they can be used for food, medicines, building materials, musical instruments, clothing and much more.

Question:

Can you name two uses for the plants on our site?



Eco-services Hunt: Task # _____

The _____ Department

Bees, butterflies, beetles, wasps and other creatures carry pollen from one flower to another flower.

Without this important service we would not have seeds and fruits.



Question:

What GEN department provides this eco-service?

Eco-services Hunt: Task # ____

The Food Department

Fruits, leaves, flowers, seeds and berries provide food for many creatures on our site. Insects,

mushrooms and small animals such as mice are also food for local wildlife. Did you realize that these plants and animals are providing food?



Question: Name two creatures that may be getting on our site.

Eco-services Hunt: Task # ____

The _____ Department

Plants need three things to live – light, water and nutrients. This department provides a rich source of nutrients and support for plants. It also provides an underground home to many creatures that help to make this department healthy by adding nutrients and providing air for roots to breathe.



Question: What ecosystem department provides this eco-service?

Eco-services Hunt: Task # _____

The _____ Department



All living beings need water to survive. As water falls from the

clouds, runs through our soil, and seeps into the ground, it can be cleaned of many pollutants and, of course, it nourishes all life.



Question: What GEN department provides this important eco-service?



Eco-services Discovery Hunt!

Answer sheet

Our local ecosystem provides many important services for us free of charge!

INSTRUCTIONS: Can you find evidence of the

Eco-service Departments at work on your site? Look for the 'Hunt Cards' at the locations marked on your discovery map on the reverse side. Read the questions on the 'Hunt Cards' and fill in the blanks beside each task below.

Task 1: What ecosystem department provides this eco-service?

Task 2: Can you name two important workers from the air cleaning department?

1. _____ 2. _____

Task 3: Can you name two uses for plants on our site?

1. _____ 2. _____

Task 4: What ecosystem department provides this eco-service?

Task 5: Name two creatures that may be getting food from plants and animals on our site.

1. _____ 2. _____

Task 6: What ecosystem department provides this eco-service? _____

Task 7: What ecosystem Department provides this eco-service?

Garden Earth Naturalist Program