



What is an Ecosystem?

Lesson 1 - Welcome to Garden Earth!

Essential Questions:

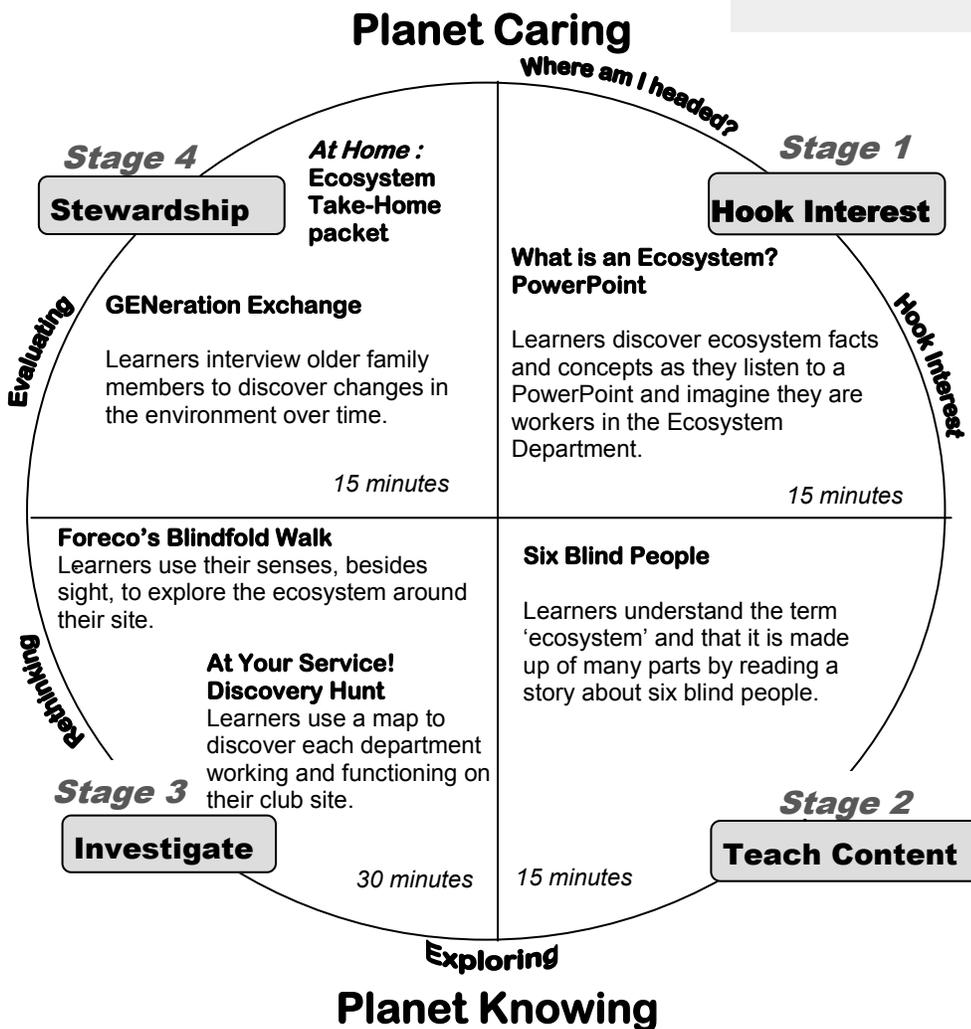
*What is an ecosystem?
Where is each GEN Department at work on my school site?
Is important knowledge about ecosystems being lost due to lack of communication?*

At a Glance:

An interactive presentation (PowerPoint & dramatization) hooks learner interest and concern for Garden Earth and ecosystem on their club site. Next, learners read a story that builds their understanding of the term 'ecosystem' and its many parts. A blindfold walk helps learners discover the surrounding ecosystem. A discovery hunt provides learners experience using a map to locate the different GEN departments on their club site. The lesson ends with a reflection activity where learners interview older family members to discover environmental changes over time.

Concepts:

- Healthy functioning ecosystems maintain life in balance on Garden Earth.
- Although the type of ecosystems varies around the world, all ecosystems are important for maintaining a healthy planet.
- There are seven eco-services or life-support functions provided by planet Earth.
- Human activities can create stresses that alter normal ecosystem functions, and impair life support functions.



Objectives

Learners ...

- 1) display curiosity about the major eco-services concepts related to Garden Earth.
- 2) define the term, ecosystem.
- 3) Classify parts of an ecosystem as living and non-living.
- 4) use all of their senses to explore the environment.
- 5) display respect for the creatures that live on their school site or natural area.
- 6) discover different areas of their school site ecosystem.
- 7) think about how these areas relate to the Garden Earth service departments.
- 8) realize how these different eco-services work together to support the health of an ecosystem.
- 9) gather information from an older person to learn how the environment has changed over time.

PROCEDURES IN BRIEF: Lesson 1—Welcome to Garden Earth!

Stage 1. What is an Ecosystem? *PowerPoint or Dramatization*

Procedure:

1. Explain that Garden Earth has many eco-service departments that make up every ecosystem on earth. Many organisms live and work on Earth. Show learners some of the eco-service worker cards. Briefly introduce the worker on each card. Explain that they will be learning more about these workers in this module. Ask the children if they have seen any of them on their club site. What job do these animals do?

2. Present the PowerPoint presentation. It introduces the major concepts of the What is an Ecosystem? module as follows:

- Healthy functioning ecosystems maintain life in balance on Garden Earth.
- Although the type of ecosystems varies around the world, all ecosystems are important for maintaining a healthy planet.
- There are seven eco-services or life-support functions provided by planet Earth.
- Human activities can create stresses that alter normal ecosystem functions, and impair life support functions.

Supplies

- PowerPoint on CD
- LDC projector
- Monitor
- Eco-service Worker Cards

Stage 2. Six Blind People

Procedure:

1. Before reading “The Six Blind People and the Ecosystem” ask learners if they have ever visited a forest? Tell them to think for just a moment on their visit. Ask them if they had to describe one thing about a forest to someone that has never seen one, what would they say? Have them write their description on a piece of paper.
2. Read the story “The Six Blind People and the Ecosystem”.
3. Discuss with the learners the meaning of the story. There are several topics you could cover: communication, looking at the big picture, ecosystems.
4. Have learners read aloud their description. Compare their responses (those that can see to whole forest) to those of the blind men (those that cannot see the whole forest).

OR

5. Read the story “The Blind Men and the Elephant”
6. Discuss the story and define the term ecosystem with the learners. Relate the parts of the ecosystem to the parts of the elephant.
7. Have the learners create their own “Blind People and the Ecosystem” Story.

Supplies

- Six Blind People and the Ecosystem Story

Stage 3. Blindfold Walk

Procedure: *In depth activities-Please see full write-up.*

1. Have learners line up along a rope, put on blindfolds, and then explain the activity to them.
2. Lead the children through the sensory activities:
 - Air: Ask the children to take a deep breath. Stop and have the learners feel a tree.
 - Food: Pass out nuts or carrots for the children to eat.
 - Each time they hear a different sound have them raise one finger, until they have heard a different sound for each of their fingers.
 - Soil: Come to a rotting log or fallen tree branches. Have children use their right hand to touch the log.
 - Pollination: Pass a fragrant flower (or scent container)
 - Water: If available, walk past running water/stream.

Supplies

- Blindfolds
- Rope
- Carrots or nuts
- Fragrant flower
- Set a rotting log within reach along the trail
- Site map
- ‘Discovery Hunt’ Sheet
- task cards
- String and stakes

At Your Service! Discovery Hunt

1. Divide learners into teams with 3-4 learners.
2. Pass out the maps and answer sheets.
3. Provide the orientation and reinforce map skills with the following questions and instructions:
 - Orient learners to the map
 - 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 other 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.
 - Remember, this is a team activity; stay with your group at all times.
 - Everyone will return in (? # of minutes) by ____ (state return time).
4. Have learners return when finished and discuss as a group.

Stage 4. GENeration Exchange

Procedure:

1. Learners will choose an older family member, such as a grandparent, a neighbor or friend of the family to interview about changes that have occurred in the environment.
2. Through communication with this older person, GEN learners will gather information about an ecologically related topic. A great place to start would be asking about observed changes that have taken place in the landscape. Another good topic is the relationship this person had with the outdoors as a child. Some great stories are sure to result. Learners may even be able to gather photographs or artifacts from this time period. Notes can be recorded on the template provided.
3. In exchange, learners will share something from their generation. Learners can show how to use a video game, research a topic via the internet, take digital pictures of a landmark – the possibilities are endless. The details (as well as friendships) will develop after the communication begins.
4. Learners will share what they exchanged with other GEN Club members.

Supplies

- Pencil
- Paper
- ‘GENeration Exchange’ worksheet
- camera