

Welcome to the Pest & Disease Control Department

PowerPoint

Essential Question:

What is the Garden Earth Pest and Disease Control Department?

Background Information:

See Background Information: Pest and Disease Control Department

Getting Ready:

Set up the equipment necessary for showing the PowerPoint presentation. Introduce the Pest and Disease Control Department module to the learners. Explain this is one of many eco-services that make up Garden Earth.

Procedure:

1. Explain that Garden Earth has many eco-service departments that make up every ecosystem on earth. There are many organisms that live and work in Pest & Disease Control Department. Show learners some of the eco-service worker cards. Briefly introduce the worker on each card.
2. Explain that we will be learning more about these workers in this module. Ask the children if they have seen any of them at our club site. What job do these animals do?
3. Present the PowerPoint presentation. It introduces the major concepts of the Pest & Disease Control Department as follows:
 - Populations of most organisms are kept in balance by interactions with other species. This is called biological control.
 - In general, what animals eat determines whether humans classify them as helpful or harmful and determines their roles in their ecosystems.
 - Due to their numbers and sizes, insects and other invertebrates are basic to food chains.
 - Insects and invertebrates are major predators of insects and related invertebrates.
 - Predators have varied means of getting prey and insects and their relatives use a variety of defenses, not so different from those used by humans.
 - Some insects and invertebrates are clearly harmful to

Location: Indoors

Objectives: Learners will

- 1) display curiosity about the major concepts related to the pest and disease control eco-service.
- 2) name several organisms that provide pest and/or disease control services.

Skills: communication, listening, analysis

Supplies:

- PowerPoint on CD
- LDC projector
- Monitor
- Slide Notes
- GEN Eco-Service Cards
 - Ant lion
 - Firefly
 - Dragonfly
 - Green lacewing
 - Praying mantis
 - Fire Ant
 - Stink bug
 - Ground beetle
 - Ladybug beetle
 - Centipede
 - Mud-dauber wasp
 - Parasitic wasp
 - Tiger beetle
 - Mite
 - Tick
 - Scorpion
 - Jumping spider
 - Orb Weaver spider
 - Aphid
 - Cicada
 - Crane fly
 - Cricket
 - Grasshopper
 - Horse fly
 - House fly
 - Leaf hopper
 - Luna moth
 - Mosquito
 - Walking stick
 - Weevil

Subjects: language arts, science

Time: 20 minutes

human health, crops, and livestock and/or animals and need to be controlled.

- Most insects and invertebrates are beneficial, and all have roles in their ecosystems.
- Pesticides, which can be quite persistent, can be harmful to the environment, to species beyond those targeted and human health if misused.
- It is desirable to limit the use of pesticides and other chemicals and utilize other means of control such as natural predators and attractants, where possible.
- Integrated pest management is an approach that seeks to control pest insects efficiently in ways that do not harm human health or the environment.

Discussion/Assessment:

Give learners (individual or pairs) and eco-service cards. Tell them to read the back of the cards and then think if this organism is a pest. What role does it play in the Pest & Disease Control Department? (predator, prey, pest control, etc.)

Questions:

What is the Pest and Disease Control Production Department?

Who does the Pest and Disease Control Department affect? Explain.

What threats face the Pest and Disease Control Department?