



Food Production Department

Lesson 2 - Madame Squirrel's Restaurant (Grade 3-5)

Essential Questions:

What is a 'pest' and why is the term subjective depending on the situation?

What are the body parts of an insect?

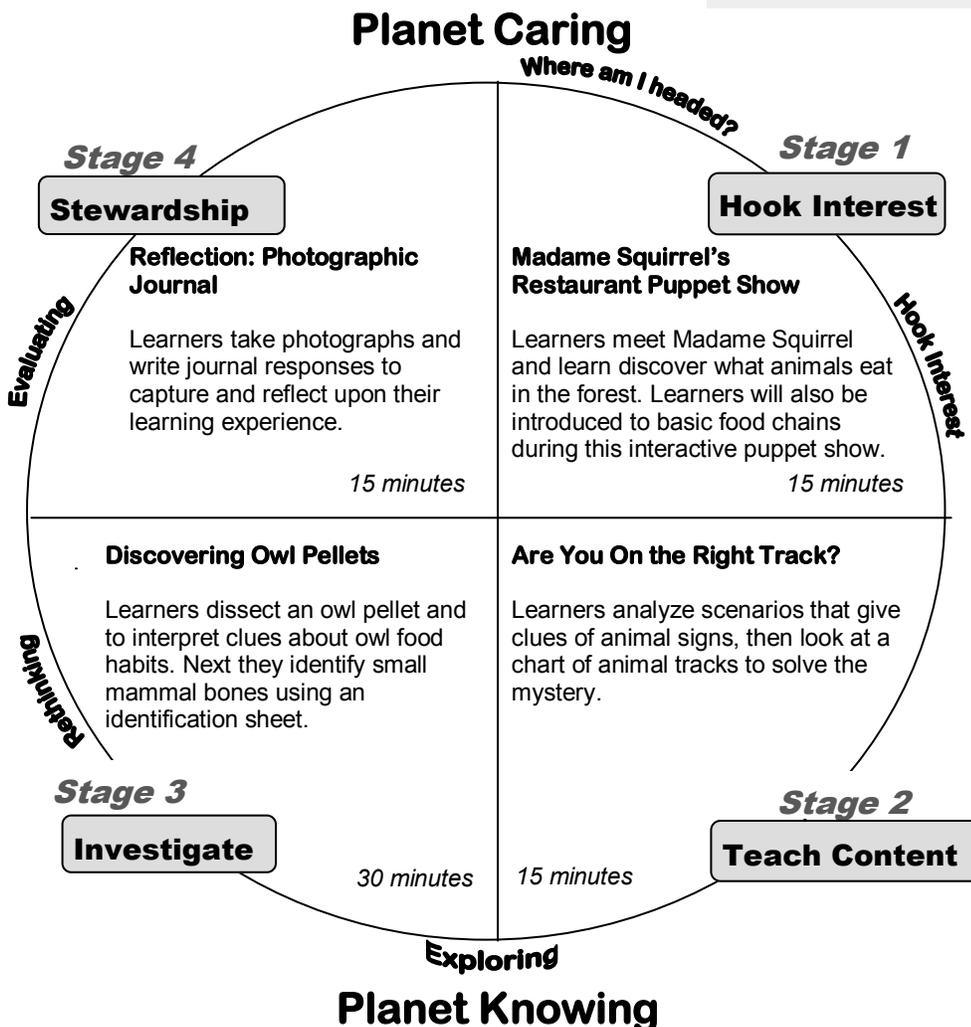
How does biodiversity keep disease from spreading?

At a Glance:

An interactive puppet show teaches learners about the Food Production Department and basic food chains. Learners then look at animal tracks and other clues to solve animal mysteries. An owl pellet dissection reveals owl food habits and learners are able to identify mammal bones from the pellets. The lesson is concluded with a reflection activity using photographs and journal responses to review their learning experience in the Food Production Department.

Concepts:

- A major function of a healthy ecosystem is producing nutritious food for the animals that live there.
- The sun is the base of all food chains.
- Organisms have adapted and will "eat" a variety of foods within the ecosystem.
- Relationships between producers (plants) and consumers (animals) can be diagrammed in food chains/webs.



Objectives

Learners ...

- 1) meet Madame Squirrel and learn about what animals eat in the forest.
- 2) be introduced to basic food chains.
- 3) analyze clues and use field guides to interpret animal signs.
- 4) observe differences between different animal tracks.
- 5) dissect an owl pellet and interpret clues to owl food habits.
- 6) identify small mammal skulls and bones using a bone identification chart.
- 7) take photographs and write a journal entry to reflect upon what they have learned about the food production eco-service.

PROCEDURES IN BRIEF: Lesson 2—Madame Squirrel’s Restaurant

Stage 1. Madame Squirrel’s Restaurant *Puppet Show*

Procedure:

1. Assemble the learners in front of the puppet stage. Tell the learners that Madame Squirrel would like to visit and tell them all about the restaurant that she runs in the forest.
2. Perform the puppet show.

Discussion/Assessment:

- Who visited Madame Squirrel’s Restaurant?
- What did they eat?
- What is a food chain?
- Do we visit Madame Squirrel’s Restaurant?
- How do humans affect her Restaurant?

Supplies

- **Script:** *Madame Squirrel’s Restaurant*
- **Puppets**
 - Foreco
 - Madame Squirrel
 - Beatrice Bat
 - Sir Owl
 - George Gecko
 - Mr. Fox
 - Suzanne Bird
 - Bertha Bee
 - Charlotte Spider
 - Sol the Sun
- **Props**
 - Madame Squirrel’s food basket
 - grasshoppers and insects
 - a “dead animal” puppet
 - a large spider web with an insect caught in it
 - flowers on the stage

Stage 2. Are You On the Right Track?

Procedure:

1. Discussion: What are some clues that tell us which animals are on our site? Explain to the learners that they will be working through mini mysteries to discover which animals were involved.
2. Go through the mysteries with the learners and discuss their answers.
3. Have the learners design their own mysteries using the guides. They can draw or trace the footprints.
4. Next, learners swap their mysteries and try and to work them out.

Supplies

- worksheets: *Are you on the Right Track?*, *Animal Track Guide*
- pencils/pens
- Peterson Flash Guides: *Animal Tracks*

Answers

- Mystery 1:** **Cat** (*Shape and size of track, location - urban setting*)
Raccoon (*Shape and size of track, location - urban setting*)
- Mystery 2:** **Moose** (*Shape and size of tracks, likely to be near lake away from biting insects, eaten aquatic plants*)
Eastern Cottontail Rabbit (*Shape and size of tracks, nibbled plant at 45° angle, small round scat*)
- Mystery 3:** **Unshod Horse** (*Shape and size of track*)
Fossilized Shark’s tooth (*Shape and color of tooth*)
Background Information: Cumberland Island has wild horses and plenty of fossilized shark teeth on its trails.

Stage 3. Discovering Owl Pellets

Getting Ready:

Gather supplies. Make sure you are aware of any learners with asthma or fur allergies that may have a reaction to the fur. You may print out the worksheet with the Small Mammal Review on the other side to give the learners more information.

Procedure:

1. Discuss with the learners adaptations and characteristics of owls.
2. Split the learners into groups and hand out supplies.
3. Have the learners follow the Discovering Owl Pellets Worksheet.

Supplies

- owl pellets
- dissecting tools (toothpicks, tweezers)
- paper plates
- owl pellet bone ID sheet
- Discovering Owl Pellets Worksheet
- Pencils
- gloves

Stage 4. Photographic Journal *Reflection*

Procedure:

1. Have students take pictures throughout their learning experience in the Food Production Department. Alternatively, you may take pictures of the learners participating in the activities.
2. Give each group of students one to two photographs and tell them they are in charge of describing something about the photo in one sentence.
3. Then discuss aloud the action occurring in the picture, something they learned in or as a result of the project, something they enjoyed, surprised them, excited them, and so on.
4. Glue or tape the picture to a piece of construction paper and have students write a short summary below the picture.
5. After all the pages are made, purposefully put them in non-sequential order. Have the students put them in sequential order.

Supplies

- Digital camera
- Construction paper
- Glue or tape
- Pencil/pen