



Classroom Teacher Preparation

Life Science 8: Owl Pellets

Please use the following to prepare for the next SfS lesson.

Description:

Students learn about the adaptations owls have that allow them to swallow their prey whole – bones, fur, and teeth! They will then dissect an owl pellet with a partner to gather data about the owl's diet. Students can go on to learn about several other owl adaptations including stereo eyesight, keen hearing (and uneven ears), and silent feathers.

Lesson Objectives – SWBAT (“Students Will Be Able To...”):

3rd-5th

- Dissect an owl pellet with a partner and identify the excavated bones
- Investigate what an owl pellet is and why owls produce pellets

Disciplinary Core Idea (DCI)

LS4 Biological Evolution: Unity and Diversity - LS4.C Adaptation

- (3rd-5th) Particular organisms can only survive in particular environments.

Science & Engineering Practice (SEP)

Planning and Carrying Out Investigations

- (3rd-5th) Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.

Crosscutting Concept (CCC)

Patterns

- (3rd-5th) Patterns can be used as evidence to support an explanation.

Preparation:

This lesson serves as an introduction to the topic. No special preparation is necessary.

Room Set Up for Activities:

Students will work in pairs to dissect owl pellets. Tables/desks will be sufficient to carry out the activity.

Safety:

Goggles are required during the pellet dissection due to the use of sharp implements. For students with fur or dander allergies (only), gloves are recommended. Please let the instructors know of any allergies in your class.

Students' hands and surfaces should be cleaned after completing the owl pellet dissection. The instructor should have spray disinfectant and hand sanitizer but soap and water works well too.



Dissected pellets should be disposed of promptly. A regular trash bin is fine for this.

Related Modules:

This lesson may be taught as part of a sequence or group of related modules on **adaptations and the food chain**. Modules include:

Life Science 28: Camouflage and Mimicry - Camouflage and mimicry are explored as examples of animal adaptations that increase chances of survival. Students play a hunting game to gain an appreciation of the problems that these adaptations pose for predators.

Life Science 5: Food Webs – This module teaches the basics of food webs. Students first construct a food web model for a simplified Yellowstone ecosystem. They then consider what would happen to the ecosystem if the food web were disrupted by the removal of a native species and/or the introduction of an invasive species.

Life Science 4: C. Elegans – Students are introduced to the model organism *Caenorhabditis elegans* (*C. elegans*), a microscopic roundworm. Students will conduct a very simple controlled experiment to test the preference of *C. elegans* for different odors.

For other module sequences and groups, look here: www.sciencefromscientists.org/sequences

Standards Covered:

Please click the following link to our website to review the standards covered by this lesson, listed by state: www.sciencefromscientists.org/standards/

Lessons are matched to both national NGSS and local state standards.

After Our Visit:

Extend this lesson by performing a virtual owl pellet dissection.

Access this Extension activity by visiting the Classroom Post found on our website at sciencefromscientists.org/cohorts. Use the name of your school/cohort and password to log in.

To help Evaluate, check out our Open Response questions online at sciencefromscientists.org/open-response-questions. They are freely available for all of our lessons for current teachers. Use the password supplied by your instructor to log in.

Additional Resources:

- Online owl pellet dissection: <http://kidwings.com/virtual-pellet/>
- Massachusetts Audubon Society – Owls: <http://www.massaudubon.org/learn/nature-wildlife/birds/owls/species>
- Science Trek Owls website: <http://idahoptv.org/sciencetrek/topics/owls/>