

# OWL PELLET DISSECTION

## Details

### Activity Length

1 hr.

### Topics

Animals

Ecology and Evolution

### Activity Type

Exploration

### Language

English

In this activity, students **dissect owl pellets** and reconstruct the skeletons of animals inside to discover what the owls have been eating.

When you first see an owl pellet, you will probably think that it is feces, but this pellet has been regurgitated from the other end, the owl's beak.

Owls are predators and usually swallow eat their prey whole, or at least in large chunks complete with bones, fur, and feathers. Prey species can include rodents, insects, lizards, rabbits, bats, snakes & birds, to name a few. In the owl's stomach, the soft matter is digested, but the fur and bones are regurgitated back out through the mouth in a little package, or pellet.



Pellets are important for scientific study because they give us a picture of what the owl eats, when, and in what frequency. The last time you read in some book what an animal eats, did you wonder how some scientist was able to learn that information? It would be too difficult to follow the animal around and watch it eat, especially at night when most owls feed. This means we have to examine things like pellets.

### Vocabulary:

**Regurgitate:** to bring (swallowed food) up again to the mouth.

**Ornithology:** the scientific study of birds.

**Pellet:** In ornithology, is the mass of undigested parts of a bird's food that some bird species occasionally regurgitate. The contents of a bird's pellet depends on its diet, but can include the exoskeletons of insects, indigestible plant matter, bones, fur, feathers, bills, claws, and teeth.

### Objectives

- Dissect an owl pellet and reconstruct the bones of the owl's regurgitated waste.
- Explain how scientist can determine what an animal eats by examining its waste.

### Materials

- **Per Group:**

1 pair of gloves

dissection tray containing: Owl pellet\*, Probe, Tweezers

index card or paper plate on which to glue the various bones extracted from the pellet  
paste

skeletal diagrams of some typical owl prey. Some are available at [Barn Owl Trust](https://www.barnowltrust.org.uk/wp-content/uploads/Science-Pellets.pdf) (<https://www.barnowltrust.org.uk/wp-content/uploads/Science-Pellets.pdf>) or [Owl Brand Discovery Kits](https://issuu.com/wolfcenter/docs/obdk_pelletguide14_web-lab) ([https://issuu.com/wolfcenter/docs/obdk\\_pelletguide14\\_web-lab](https://issuu.com/wolfcenter/docs/obdk_pelletguide14_web-lab)).

magnifier (optional)

\***Owl pellets** are available through online educational supply stores such as [Boreal](http://www.boreal.com) (<http://www.boreal.com>), or at your nearest owl sanctuary. They have been dried and gassed

to kill all bacteria and parasites and are perfectly safe to touch.

## Key Questions

- What types of animals do owls eat?
- What animals do you think this particular owl has been eating?
- Why are the fur and bones not digested?
- What owls do we have in our region?
- What owls are on the endangered species list?

## What To Do

1. Discuss what an owl pellet is and predict what might be found inside before distributing the pellets, dissection tools and gloves.
2. Dissect the pellets carefully.
  - Observe that the pellets are composed of both fur and bones of the prey.
  - Pull the bones out of the compacted fur.
  - Sort the bones by type (skulls, ribs, vertebrae, leg bones).
  - Decide how many prey animals are present. Note that there may only be one.
  - Try to sort the bones to go with each skull found, using the skeletal diagrams as a guide.
3. Glue the bones to the card, one card for each animal, labeling the bones if possible.
4. Compare the types of prey found in each groups' owl pellet and discuss what we can learn about the owl's diet, behaviour and environment.

## Extensions

- Take students to an owl sanctuary (or OWL rehabilitation center) and observe these wonderful creatures in the wild (or semi wild) environment.
- Discuss prey species further: What prey species are local? What can their frequency in the owl pellets tell you about the prey? Why is difficult to tell species apart from bones, when they normally look very different?

## Other Resources

Barn Owl Trust | [Barn Owl Science PDF \(https://www.barnowltrust.org.uk/wp-content/uploads/Science-Pellets.pdf\)](https://www.barnowltrust.org.uk/wp-content/uploads/Science-Pellets.pdf) & [Barn Owl pellet analysis](#)

[\(https://www.barnowltrust.org.uk/barn-owl-facts/barn-owl-pellet-analysis/\)](https://www.barnowltrust.org.uk/barn-owl-facts/barn-owl-pellet-analysis/)

Audubon | [What is an Owl Pellet? \(https://www.audubon.org/news/what-owl-pellet\)](https://www.audubon.org/news/what-owl-pellet)