

RAFT IDEAS

Topics: Life Science,
Ecology, Anatomy

Materials List

- ✓ Owl pellet,
sterilized
- ✓ Disposable cup
- ✓ Tweezers,
toothpicks, or Grab-
It Sticks (see RAFT
Idea Sheet *Grab-It
Sticks*)
- ✓ Old toothbrush (soft)
- ✓ Work tray or paper
plate
- ✓ Water
- ✓ Paper towels
- ✓ Plastic spoon
- ✓ Optional: hydrogen
peroxide

This activity can be used
to teach:

Next Generation Science:

- Life cycles (Grade 3,
Life Science 1-1)
- Characteristics &
survival (Grade 3,
Life Science 4-2, 4-3)
- Body structures
(Grade 4, Life
Science 1-1)
- Body systems
(Middle School, Life
Science 1-3)
- Ecosystems and
populations
(Middle School, Life
Science 2-1)
- Movement of matter
in an ecosystem
(Grade 5, Life
Science 2-1)



Owl Pellet Dissection

Solve the mystery of “who” was eaten by the owl!



Owls regurgitate (spit out) a pellet made of the indigestible parts of the animals they eat. Studying the bones in the pellet will indicate which animals the owl ate.

To Do and Notice

Teacher note: Review the owl’s place as a predator in the ecosystem and the types of prey might be a meal for an owl. (Snake, mouse, rat, bird, etc.). Remind students that the owl pellet is regurgitated from the mouth.

1. Unwrap the owl pellet and observe the surface. Notice the mass of fur. Are there any structures protruding from the fur? Could any of the protruding items be a jaw, a skull, a tooth, or a long bone?
2. Soak the pellet in water for 5-10 minutes or in hydrogen peroxide for ~5 minutes.
3. Use a spoon to carefully place the pellet on paper towels.
4. Use tweezers, toothpicks, or Grab-It Sticks to gently tease the fur away from the embedded bones. Search carefully to find any small skulls, teeth, vertebrae, and limb bones.
5. Use a soft toothbrush and water to clean the skeletal parts found.
6. Organize the bones into groups and subgroups based on similar characteristics.
7. Identify the skeletal structures and types of animals.
8. Glue the bones to paper or cardstock. Label the bones. Alternately the students can work to reconstruct the skeleton(s) before gluing the bones in place.

The Science Behind the Activity

Owls are raptors, birds of prey which hunt at night and have excellent eyesight for finding and catching prey. Unable to chew their food, owls must swallow small prey whole. Because owls cannot digest the bones and fur of the animals they eat the indigestible parts are regurgitated (spit up) in the form of a pellet about 12 hours after eating. Usually the pellet contains the bones and fur from 1 to 3 creatures. Rodent bones and fur are the most commonly found. The details of an owl’s diet are important to biologists studying food chains. Owl pellets are collected from the forest floor and then sterilized, usually with heat, before being sold to the public.

Taking It Further

Count and number each type of bone. Graph the results. How many different animal skeletons are in the average owl pellet?

Web Resources (Visit www.raft.net/raft-idea?isid=258 for more resources!)

Owl Pellet Bone Chart -

http://biologycorner.com/resources/Owl_Pellet_Bone_Chart_grid.pdf

Thematic owl ideas - http://www.abcteach.com/directory/theme_units/animals/owls/