# OWL PELLETS
## OVERVIEW FOR TEACHERS/PARENTS

**AGE/GRADE LEVEL**

This program is appropriate for grades 4 through 8.

**DURATION**

The program is approximately 2 hours long.

**GROUP SIZE**

30 students plus one educator/chaperone for every six students

**LOCATION**

Branigar Chase Discovery Center

**BACKGROUND**

Students will learn about owl anatomy and nocturnal hunting methods through this activity. They will have an opportunity to discuss unique characteristics of owls that allow them to hunt at night, dissect owl pellets to determine owl-feeding behavior, and analyze their findings from the pellets.

**ESSENTIAL QUESTIONS**

By the end of the activity, the students will be able to answer the following questions:

1. What is a "casting"?
2. What animals produce pellets? How are pellets formed? Why are some easier to study than others?
3. What kinds of prey did you find in your "casting"?
4. Can you draw (describe) the food chain represented by your pellet? (Grade 7)
5. Given your classroom data, which prey species seems most abundant?
6. Of what significance is the study of owl pellets to the ecologist or zoologist?
7. ** Math connection: Assuming that the owl regurgitates one pellet per day, how many prey items would the owl that produced your pellet produce in a year?

**KEY WORDS USED IN THE PROGRAM**

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| Predator | Biodiversity | Casting | Nocturnal |
| Prey | Talon | Pellet | Directional auditory location |
| Ecology | Regurgitate | Diurnal | Binocular vision |

**ARIZONA ACADEMIC STANDARDS ADDRESSED BY THIS PROGRAM**

**SCIENCE**

**Strand 1: Inquiry process**

**Concept 1: Observations, questions and hypothesis**

*Grade 4:* Observe, ask questions, and make prediction

*Grades 5–8:* Formulate predictions, questions, or hypotheses based on observations. Locate appropriate resources.

**Concept 2: Scientific testing (investigating and modeling)**

*Grade 4:* Participate in planning and conducting investigations, and recording data

*Grades 5–8:* Design and conduct controlled investigations

**Concept 3: Analysis and Conclusions**

*Grade 4:* Organize and analyze data; compare to predictions

*Grades 5–8:* Organize and interpret data to explain correlations and results; formulate new questions

**Concept 4: Communication**

*Grades 4–8:* Communicate results of investigations.

**Strand 4: Life Science**

**Concept 1: Characteristics of Organisms**

*Grades 5–6:* Understand the relationship between structures and functions of organisms.

**Concept 3: Organisms and Environments**

*Grade 4:* Understand the relationship among various organisms and their environment

*Grades 5–8:* Analyze the relationship organisms and their environment

PO 1 (Grade 7): Compare food chains in a specified ecosystem and their corresponding food web

PO 2 (Grade 7): Explain how organisms obtain and use resources to develop and thrive in predator/prey relationships

PO 4 (Grade 7): Evaluate data related to problems associated with population growth

**Concept 4: Diversity, Adaptation and Behavior**

*Grade 4:* Identify plant and animal adaptations

*Grades 5–8:* Identify structural and behavioral adaptations

PO 2. Give examples of adaptations that allow plants and animals to survive.