
All About Owls



Fifth-Grade Teacher Resource Guide

Table of Contents

Lesson summary	1
Vocabulary	1
Language Arts Crossword Puzzle.....	2-3
Language Arts Word Search.....	4-5
Extension Activities.....	6
Education Standards	7-8

All About Owls: Lesson Summary and Vocabulary

Lesson Summary: The *All About Owls* program allows students to touch and examine samples of the owl order while learning about their characteristics and development. The presentation focuses on both instructor-led discussion and hands-on activities. Students will work as a group to experiment with types of ‘beaks’, observing the functions and variations in each. Discussion will continue as the instructor presents live examples, covering the owls’ physical adaptations, diets, habitats, and roles both in nature and with humans. Students will get more hands-on experience dissecting an owl pellet and learning about what and how owls eat. Throughout the program, students will be challenged to use their critical thinking skills to answer a wide range of open-ended questions and expand their understanding of owls and birds as a whole.

Vocabulary: Below are words and concepts that relate to the *All About Owls* program.

Adaptation: A change in either the structure or functions of an organism over time that better enables it to survive and reproduce in its environment. An adaptation can be structural (e.g., talons for seizing prey), physiological (e.g., ability to change color), or behavioral.

Beak: The hard projecting mouthpart that birds use to eat their food

Camouflage: Something (such as color or shape) that protects an animal from attack by making the animal difficult to see in the area around it

Diurnal: Awake during the day and asleep during the night

Ecosystem: A community of living things, together with their environment

Gizzard: A pouch at the back of a bird’s stomach that helps grind down food with the aid of grit

Native: Belonging to or originating from a specific location or habitat; local

Nocturnal: Awake during the night and asleep during the day

Owl: A predatory bird belonging to the order *Strigiformes*

Pellet: In birds, a mass of regurgitated food formed in the gizzard that contains the inedible portions of their meal

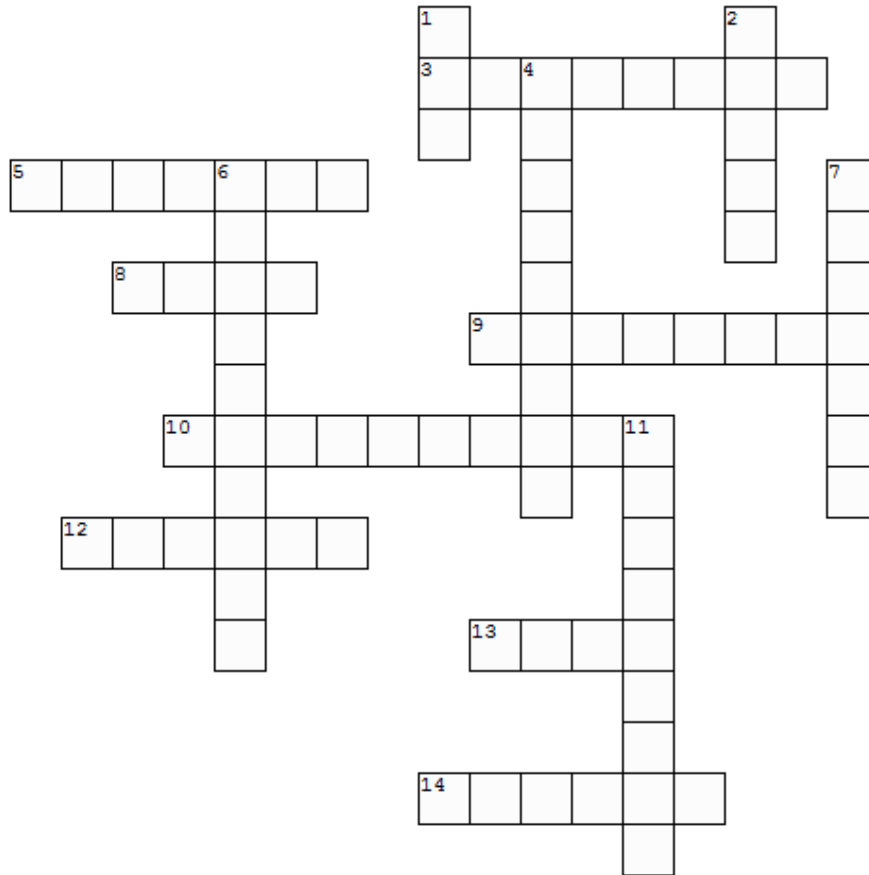
Predator: An animal that hunts and eats other animals

Prey: An animal that is hunted or killed by another animal for food

Talon: A sharp hooked claw of a bird of prey or other predator

Wingspan: The distance between the tips of a bird’s extended wings

All About Owls Language Arts Crossword Puzzle



PREY	ECOSYSTEM	PREDATOR	CAMOUFLAGE	PREDATOR	WINGSPAN	GIZZARD	
BEAK	OWL	ADAPTATION	NATIVE	TALON	PELLET	NOCTURNAL	DIURNAL

Down

1. A nocturnal predatory bird belonging to the order *Strigiformes*.
- 2 A sharp hooked claw of a bird of prey or other predator
4. Awake during the night and asleep during the day
6. In biology, a change in an organism over time that better enables it to survive and multiply
7. Awake during the day and asleep during the night
11. A community of living things, together with their environment

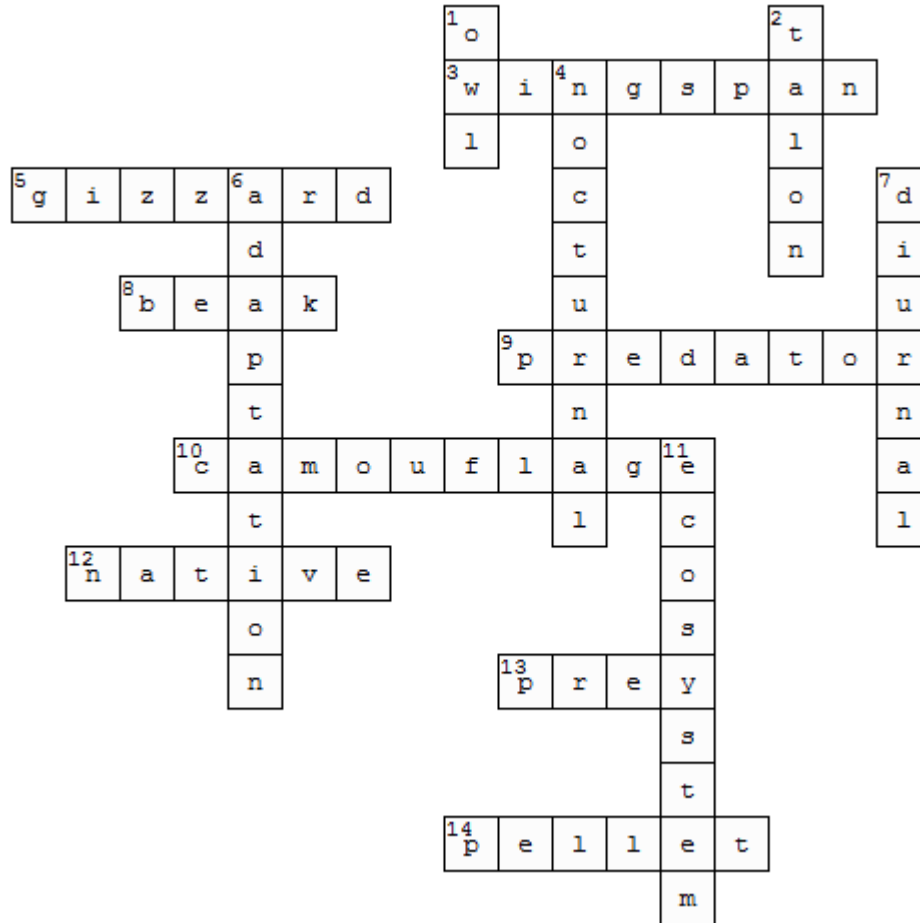
Across

3. The distance between the tips of a bird's extended wings
5. A pouch at the back of a bird's stomach that helps grind down food with the aid of grit
8. The hard projecting mouthpart that birds use to eat their food
9. An animal that hunts and eats other animals
10. Something that helps an animal blend in with the place where it lives
12. Belonging to or originating from a specific location or habitat; local
13. The object of a hunt or pursuit, usually one animal caught and eaten by another.
14. In birds, a mass of regurgitated food formed in the gizzard that contains the inedible portions of their meal

Answer Key

All About Owls

Language Arts Crossword Puzzle



Down

1. A nocturnal predatory bird belonging to the order *Strigiformes* (**owl**)
2. A sharp hooked claw of a bird of prey or other predator (**talon**)
4. Awake during the night and asleep during the day (**nocturnal**)
6. In biology, a change in an organism over time that better enables it to survive and multiply (**adaptation**)
7. Awake during the day and asleep during the night (**diurnal**)
11. A community of living things, together with their environment (**ecosystem**)

Across

3. The distance between the tips of a bird's extended wings (**wingspan**)
5. A pouch at the back of a bird's stomach that helps grind down food with the aid of grit (**gizzard**).
8. The hard projecting mouthpart that birds use to eat their food (**beak**)
9. An animal that hunts and eats other animals (**predator**)
10. Something that helps an animal blend in with the place where it lives (**camouflage**)
12. Belonging to or originating from a specific location or habitat; local (**native**)
13. The object of a hunt or pursuit, usually one animal caught and eaten by another (**prey**)
14. In birds, a mass of regurgitated food formed in the gizzard that contains the inedible portions of their meal (**pellet**)

All About Owls Language Arts Word Search

Circle the vocabulary in the word search below. Can you find all the animal-related words?

B	T	E	V	O	J	W	C	T	Y	G	M	K	L	H	J
B	E	C	I	S	X	Y	I	R	T	J	V	O	C	N	G
D	P	O	R	M	P	R	E	Y	B	U	E	V	N	J	O
Q	N	S	N	B	P	K	X	J	P	J	N	A	J	C	Y
G	X	Y	O	E	C	J	S	E	A	U	P	K	G	D	C
A	H	S	T	A	F	D	L	V	C	S	O	D	F	E	R
L	O	T	Y	K	I	L	C	A	G	T	I	D	A	O	O
B	E	E	R	U	E	O	M	N	J	D	N	R	D	M	T
Y	N	M	R	T	K	O	I	O	V	Y	A	A	A	T	A
N	B	N	R	D	U	W	L	C	Y	G	F	Z	P	M	D
R	A	B	Q	F	G	D	Y	T	K	B	N	Z	T	S	E
L	T	T	L	P	L	W	O	U	H	S	O	I	A	G	R
D	T	A	I	W	Z	K	U	R	K	Q	L	G	T	C	P
V	G	S	U	V	Q	G	H	N	Y	V	A	P	I	C	Z
E	I	G	M	U	E	U	S	A	N	M	T	R	O	T	B
H	T	N	X	W	T	A	S	L	U	J	L	N	N	C	T

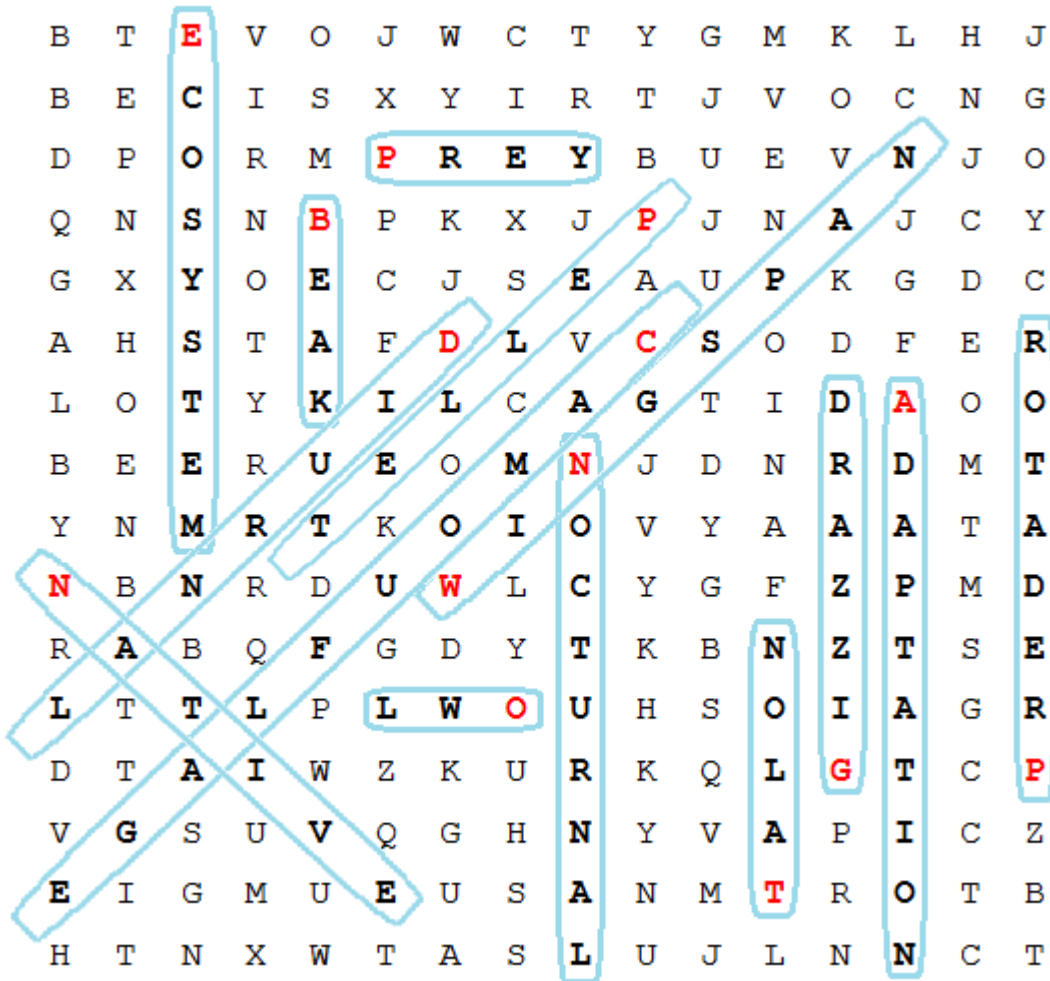
Word Bank

ADAPTATION
BEAK
CAMOUFLAGE
DIURNAL
ECOSYSTEM

GIZZARD
NATIVE
NOCTURNAL
OWL
PELLET

PREDATOR
PREY
TALON
WINGSPAN

Answer Key
All About Owls
Language Arts Word Search



Word Bank

ADAPTATION
BEAK
CAMOUFLAGE
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GIZZARD
NATIVE
NOCTURNAL
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PREDATOR
PREY
TALON
WINGSPAN

All About Owls: Extension Activities

The extension activities listed below are from RAFT (Resource Area For Teaching). RAFT educational content is available online (www.raftbayarea.org) at no cost and is aligned to California Science Standards and Next Generation Science Standards. Below is a selection of post-visit activities from RAFT to build on student learning about animals and adaptations.

[RAFT Idea: Nesting Like a Birdbrain - Resource Area For Teaching](#)

Grades Covered: 3 through 8

Subjects Covered: Life Science

Curriculum Topics: Ecology, Adaptations, Natural Selection

Description: In this activity, students try to build the best nests using only their ‘beaks’

<http://www.raftbayarea.org/ideas/Nesting%20Like%20a%20Birdbrain.pdf>

[RAFT Idea: Evolution Through Natural Selection - Resource Area For Teaching](#)

Grades Covered: 3 through 12

Subjects Covered: Life Science

Curriculum Topics: Adaptation, Evolution, Fitness, Natural Selection, Predator-Prey Interactions, Variation

Description: In this activity, students simulate natural selection and observe evolution in action.

<http://www.raftbayarea.org/ideas/Evolution%20by%20Natural%20Selection.pdf>

[RAFT Idea: Camouflage - Resource Area For Teaching](#)

Grades Covered: K through 12

Subjects Covered: Life Science

Curriculum Topics: Natural Selection, Ecosystems, Probability, Design

Description: In this activity, students will see the benefits of taking a closer look at the world around them.

www.raftbayarea.org/ideas/Camouflage.pdf

All About Owls: Education Standards

This page shows California Science Content Standards, Common Core, and Next Generation Science Standards, which students will be exposed to during the program.

California Science Content Standards Fifth Grade:

Life Sciences: 2. Plants and animals have structures for respiration, digestion, waste disposal, and transport of materials. As a basis for understanding this concept:

- a. Students know many multicellular organisms have specialized structures to support the transport of materials.
- b. Students know how blood circulates through the heart chambers, lungs, and body and how carbon dioxide (CO₂) and oxygen (O₂) are exchanged in the lungs and tissues.
- c. Students know the sequential steps of digestion and the roles of teeth and the mouth, esophagus, stomach, small intestine, large intestine, and colon in the function of the digestive system.

Excerpted from CA State Standards <http://www.cde.ca.gov/>

Common Core Fifth Grade:

Speaking and Listening Standards: Students will...

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
 - a. Come to discussions prepared having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
 - b. Follow agreed-upon rules for discussions and carry out assigned roles.
 - c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
 - d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions
2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Summarize the points a speaker or media source makes and explain how each claim is supported by reasons and evidence, and identify and analyze any logical fallacies.

Excerpted from Common Core Standards <http://www.corestandards.org/>

Next Generation Science Standards Fifth Grade:

Matter and Energy in Organisms and Ecosystems

- **5-LS2-1:** Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
 - **Science and Engineering Practices**
 - **Developing and Using Models:** builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.

All About Owls: Education Standards

- Develop a model to describe phenomena. (5-LS2-1).
- **Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena:** Science explanations describe the mechanisms for natural events (5-LS2-1)
- **Disciplinary Core Ideas**
 - **LS2.A: Interdependent Relationships in Ecosystems:** The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)
 - **LS2.B: Cycles of Matter and Energy Transfer in Ecosystems:** Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1)
- **Crosscutting Concepts**
 - **Systems and System Models:** A system can be described in terms of its components and their interactions. (5-LS2-1)

Excerpted from NGSS <http://www.nextgenscience.org/>