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**SYNOPSIS:**

Birds have graced our skies for more than 150 million years. There are more than 9,000 different species, each with their own unique adaptations and instincts for survival. Through research, scientists are discovering that some of these creatures show amazing intelligence.

This program takes a close look into the minds of birds and teaches how these creatures solve problems, communicate, and thrive in their environments.

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**CURRICULUM UNITS:**

Animal Behavior  
Biology  
Ecology  
Ornithology  
Zoology

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**CAREER OPPORTUNITIES:**

Animal Behavior Specialist  
Biologist  
Ecologist  
Ornithologist  
Veterinarian  
Zoologist

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**BACKGROUND INFORMATION****& PROGRAM OVERVIEW:**

Although many birds are small in size, they make up for it in intelligence. Equipped with highly developed brains, some birds are capable of solving problems, communicating with others, including humans, and using tools to obtain food.

This program looks at several bird species, identifying their amazing mental abilities. Among the many species is the parrot family, which is known for its ability to communicate with humans. African Grey parrots are among the most intelligent of all parrots. With plenty of patience and training, these creatures can develop intellectual skills equivalent to that of a 5 or 6 year old human. However, all birds' intellects don't necessarily require special training. Scientists have studied many bird species in their natural habitats and found that birds in the wild exhibit some of the same complex skills as those who receive training.

Environments can create challenges to a species' survival. Whether the environment is jungle, desert or coastal, all species must learn to adapt to obtain the basic necessities for survival: food, water, and shelter.

Birds have proven that size doesn't matter. They have the ability to communicate with humans and their own species, use problem solving skills to obtain food, make decisions and memorize. As scientists continue to research bird intelligence, we can be sure that those small, feathery creatures will continue to make big impressions.

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**ISSUES AND CRITICAL THINKING:**

- 1) Learn some words from a different language. Translate common words such as hello, goodbye, oat, help, etc. Practice using this language to communicate with another person.
- 2) Identify objects that can become more than one state of matter. How do you think Alex the parrot is able to identify different states of matter?
- 3) "Which Way?" offers students a chance to relate to how birds communicate within a flock. In groups, have them develop a way of communicating directions (right, left, back, forward, sideways, straight) by using hand signs, verbal commands, and tapping (Morse Code). Then they will use this way of communicating to guide their "flock" to finding "food".
- 4) Compare and contrast two of the species of birds from the video. Write a descriptive paragraph about each bird.
- 5) Discuss problems scientists could face when trying to compare the intelligence of a dolphin and a crow, a cat and a gerbil, a dog and a bat.
- 6) Discuss whether scientists will ever be able to communicate clearly with animals other than parrots. What species might be easiest to communicate with, and why? What species might be very difficult to communicate with and why?

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**GLOSSARY:**

**Adapt-** To make suitable or fit for a specific use or situation.

**Avian-** Related to or derived from birds.

**Cache-** A hiding place, especially for storing food.

**Communication-** Exchange of information using sounds, symbols, signs or behavior.

**Environment-** The conditions that surround one-self.

**Flock-** A group of birds or mammals herded together.

**Instinctive-** A natural or inborn pattern of activity.

**Intellectual-** Relating to the use of intellect; the power of knowing or understanding.

**Matter-** A physical or natural substance whether solid, liquid, or gas.

**Regurgitate-** To throw or pour back.

**Species-** Classes of organisms having the same characteristics.

**Wonders of Biology – Animals,  
Insects, Plants & Fungi**



**Show Me Science**

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# THE MINDS OF BIRDS



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