



Wildlife Resources for 3rd & 4th Grades

Testing Resources:

1. Descriptions by Group (6) and Target Species (15)

Group Names (pages)	Target Species (pages)		
Water Birds 133	Wood Duck 138	Common Loon 134	Canada Goose 136
Order of Falcons 141	Red-tailed Hawk 144	Turkey Vulture 142	Osprey 146
Game Birds 148	Ruffed Grouse 149	Ring-necked Pheasant 153	
Woodpeckers 172	Northern Flicker 173-4	Pileated Woodpecker 174	Red-bellied Woodpecker 175
Mimic Thrushes 211	Northern Mockingbird 212-3	Gray Catbird 214	
Finches 277	House Finch 280	American Goldfinch 284-5	

2. Adaptations – What Makes a Bird a Bird; Bird Adaptations – Beaks; Bird Adaptations – Feet
3. Vocabulary Sheet

Focus:

- Students understand the basic features that distinguish a bird from other animals.
- Students recognize the general characteristics for each of the six groups of birds, including type of beaks and feet.
- Students name the target species from photographs, mounts or drawings.
- Students identify the habitat, nest site, food, and unique features of the target species and their physical adaptations for living in their specific habitats.
- Students relate terms on the vocabulary list to the target species.

Sample Questions:

1. The Ruffed Grouse is the state bird of Pennsylvania. (circle one)

True False
2. In which natural setting does the wood duck nest?

A. in tree cavities

B. on steep cliffs

C. on the ground

D. in tree tops

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What Makes a Bird a Bird?

Birds are warm-blooded vertebrates. They have three special features (or adaptations) that help you identify them as birds: feathers, hard-shelled eggs and hollow bones.

WARM-BLOODED Like mammals, birds are warm-blooded. This means their body temperature stays the same no matter how hot or cold it is outside. This characteristic allows birds to maintain high levels of energy needed to fly.

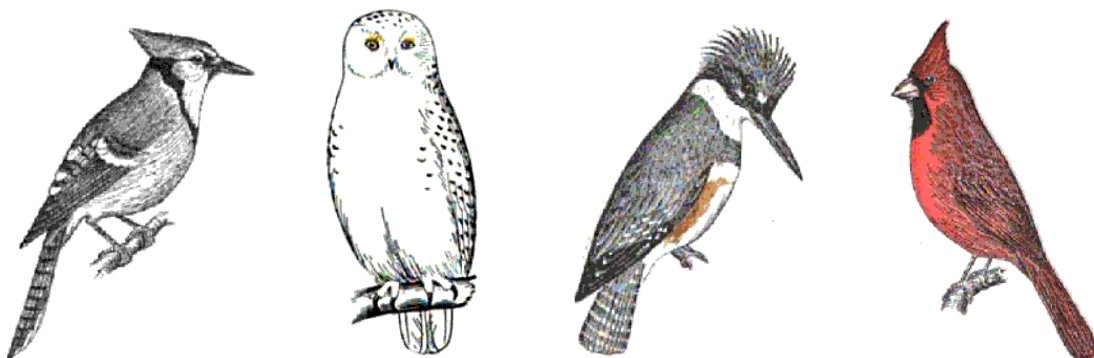
FEATHERS Birds use their feathers in many ways; such as flight, controlling their body temperature, protecting their body and attracting a mate.

HARD-SHELLED EGGS Birds lay hard-shelled eggs. The hard shell keeps an egg from drying out and allows parents to sit on the eggs during incubation. Even though bird eggs are hard-shelled, they have microscopic pores which allow oxygen to pass into and carbon dioxide to exit the shell – **THEY BREATHE**.

Eggs come in a variety of colors, patterns, shapes and textures. Colors and patterns on eggs vary depending on the need for camouflage.









The shape of the egg depends on where the bird nests. Most eggs are oval. Birds that lay their eggs on ledges need eggs with a pointed end so they will not roll off the ledge.

HOLLOW BONES Simply having feathers does not permit birds to be creatures of the sky. Extremely lightweight bones are also necessary for flight. Bird bones are strong and hollow with inside supports.









Bird Adaptations: Beaks

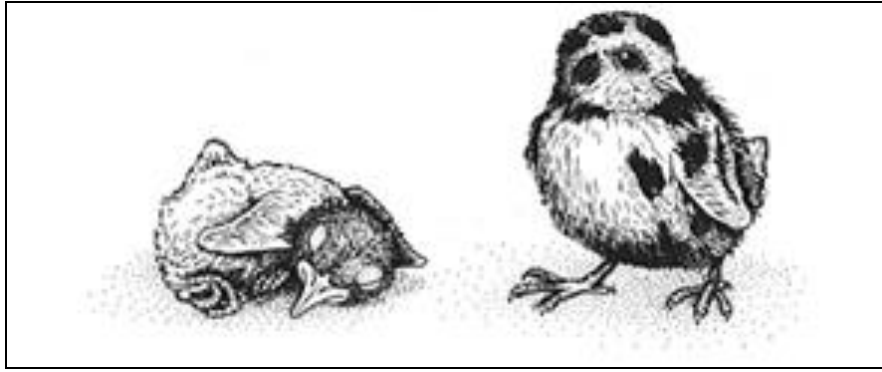
Did you ever wonder why there are so many types of bird beaks or bills? The most important function of a bird bill is feeding, and it is shaped according to what a bird eats.

SHAPE	TYPE	ADAPTATION
	Cracker	Seed eaters like sparrows and cardinals have short, thick conical bills for cracking seed.
	Shredder	Birds of prey like hawks and owls have sharp, curved bills for tearing meat.
	Chisel	Woodpeckers have bills that are long and chisel-like for boring into wood to eat insects.
	Probe	Hummingbird bills are long and slender for probing flowers for nectar.
	Strainer	Some ducks have long, flat bills that strain small plants and animals from the water.
	Spear	Birds like herons and kingfishers have spear-like bills adapted for fishing.
	Tweezer	Insect eaters like warblers have thin, pointed bills.
	Swiss Army Knife	Crows have a multi-purpose bill that allows them to eat fruit, seeds, insects, fish, and other animals.

Bird Adaptations: Feet

Feet are one of the characteristics you can use to identify birds. If you have already identified a bird, you can learn more about its behavior by looking at the feet and thinking about where it lives (its habitat). Here are some common feet shapes and the environment they are especially adapted to live in.

SHAPE	TYPE	FEET ADAPTATIONS
	Grasping	Raptors like Osprey use their large curved claws to snatch fish from the water.
	Scratching	Pheasants and other birds that scratch the soil for food have nail-like toes.
	Swimming	Ducks and other webbed lined swimming birds use their feet like paddles.
	Perching	Robins have a long back toe, which lets them grab a perch tightly.
	Running	Many fast-running birds have three toes rather than four.
	Climbing	A woodpecker's hind toes enable it to climb without falling backward.



VOCABULARY

Pictured Left: A House Sparrow hatchling is **Altricial** – naked, blind, and helpless upon hatching. It must rely on its parents to survive.

Pictured Right: A Ruffed Grouse hatchling is **Precocial** – downy, open-eyed, and mobile upon hatching; follows parents and can eat on its own after its parents have shown it food.

Adaptations – the physical features of a bird's body that allow it to live in a certain place, find food, raise its young, etc.

Habitat – the food, water, shelter and space that any particular bird needs to live.

Arboreal – living in trees.

Brood – can mean the young or offspring of birds or when an adult bird sits on their young to keep them warm.

Carrion – dead animals

Clutch size – the number of eggs laid by a bird at one time.

Fecal sacs – a membrane that surrounds the body waste of some types of nestling birds.

Mast – the nuts of some trees, like beech and oak, used as food for animals

Migrant – birds that travel distances during various seasons for food or nesting sites.

Resident – birds that live year round in their breeding area

Omnivorous – eating many different types of food, including both plants and animals.

Raptor – any bird of prey