

## Birds: Nature's Magnificent Flying Machines

**Caroline Arnold**

**Patricia J. Wynne, Illustrator**

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What most birds have in common is their ability to fly. This book dissects the scientific components of flying without diminishing the sense of awe inspired by a bird in flight.

Starting with a look at the design of the lightweight skeleton of a bird and a simple explanation of lift forces, each page touches on a new subject, moving quickly from an examination of feathers and wings to how a bird can hover, steer, or land. The text is clear and concise.

The author, who teaches in the Writers' Program at UCLA Extension School, has written several previous books, including *Dinosaur Mountain*, which was named an ALA Notable Book. Here, for each specific aspect of birds' flight, she offers a few short paragraphs as an overview, and then includes other supplemental tidbits of information on related topics. For example, on the page that explores long distance flight, the overview discusses why birds migrate, while one breakout section explains why some birds fly in formation, and another section informs readers that the Arctic tern has the longest known migration route-12,000 miles! Thus, readers receive a sense of the big picture while also gaining insight into specific birds' characteristics.

The illustrator's artwork has appeared in ninety books, including *The Body Book* and *Tropical Rain Forest*, as well as many collections and exhibitions around the country. Her loose design of each open page aids in the dissemination of facts and invites readers' attention. Detailed, realistic illustrations bring the birds to life. A good variety of birds, from pintail duck to spotted owl, ruffed grouse to rufous hummingbird, are used to support the text. Caught in action, they soar across the page, land with a splash, or simply hover. The illustrations help create a dynamic and accessible presentation of the facts.

The depth of knowledge of both author and illustrator shows in this fine collaboration, which should pique the interest of a wide span of readers and give flight to their imagination.

MARTHA TOPOL (November / December 2003)

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