

# Review

OCTOBER 2007



## **This class is for the birds!**

A Camden County teacher and birding enthusiast  
provides tips to help all of your lessons take flight.

A Camden County teacher and birding enthusiast provides tips to help all of your lessons take flight.



Voorhees resource room teacher Dave Magpiong has shared his birding knowledge with hundreds of students through class discussions, projects and a birding club.

# This class is for the birds

by Dave Magpiong

Through differentiated instruction (DI), students across the state are working collaboratively, singing songs, role playing, roving around their rooms, and bird watching.

Wait a minute. Did he just say bird watching?

Yes. Bird watching!

## Why get students interested in birds?

Teachers who employ DI are adept at addressing Gardner's Multiple Intelligences in their classrooms to maximize student learning. Yet, there is one intelligence that is frequently overlooked. The Natural Intelligence brings to bear students' innate ability to recognize and categorize components of their environment. Bird watching and related activities can incorporate this strength into the classroom to the benefit of both students and teachers. With fall migration in full swing, you too can bring this increasingly popular hobby into your school day.

I have dozens of stories of unengaged students who were able to connect to a lesson through birding. Parents have told me about their sons and daughters who suddenly seem interested in school thanks to birding.

In short, the educational implications of birding include skill development, reinforcement of curricular content, stress reduction, and behavioral self-control.

**Develop skills**—Through birding, students can give their skills a rigorous workout. Scanning the landscape and listening for birds will build observation skills. When checking out a particular bird, students are discriminating details regarding its shape, behaviors, and colors. Jotting down field notes is equivalent to data collection.

**Reinforce content areas**—From professional biologists to backyard bird watchers, virtually every academic discipline plays a part in bird watching. Population counts and migration trends involve statistics and mathematics. Discussions of a bird's structure and plumage patterns evoke memories of art classes. History, biology, music, writing, earth science, and many other disciplines

are commonly used by birders to better understand and explain their feathered friends.

In the classroom, these subjects can come alive by illustrating their connections to the bird world and nature in general. Given the motivational value of wildlife, appropriate inclusion of animal references will draw students' attention to the task at hand. Providing them with analogies to the bird world can help students personalize the given concept, especially if they have recently seen that particular species.

**Stress reduction**—The best part of birding is that it's a fun thing to do. One can see a variety of fascinating wildlife on every outing. Birders spend time outdoors in scenic locations, often with friends. The overall result is a peaceful, relaxing time for everyone involved. What students (and staff for that matter!) couldn't use stress reduction like this?

As they watch birds, students aren't carrying heavy book bags or rushing to class. They are not trying to finish their essays before the bell. They are not engulfed by the noise pollution of crowded hallways. Instead, they're taking in fresh air, savoring the splendor of nature, and putting their stress aside for a few minutes. With all the demands on their time

and energy, our students could use a brief respite from the daily grind.

**Improve self-control**—In order to successfully identify each bird, students need to focus on details. You're probably thinking "There is no way Little Johnny could ever do this!" But I urge you, don't underestimate your students' attention spans.

Wildlife captivates people of all ages. It's heartwarming to watch a student with ADHD spy a single American Robin hunting worms for minutes on end without saying a word or moving a muscle. You might find that they can't stop watching the birds, butterflies, or other wildlife. The reason is simple—it's intrinsically motivating for them.

The real reward, however, is when these kids realize they *can* focus on one thing for an extended period. With some guidance, you may notice them using this newly found skill in your class. This is not a proclamation that bird watching is the cure for ADHD, but it is an activity that can help some students build their attention spans and improve their impulse controls which can also bolster their self-esteem.

### How could I possibly incorporate birds into my lessons?

There is a multitude of ways to afford both you and your students the opportunity to benefit from bird watching in school. Methods range from simply decorating with bird-related memorabilia to daily bird walks at school and everything in between. Since the possibilities are virtually endless, here is just a brief sampling to demonstrate how birds can be integrated throughout the school environment. Let's begin by examining the simplest strategy.

**Accessorize your room**—Bringing birds into your classroom or office can be as easy as hanging an interesting picture, keeping a field guide available for student perusal, or having bird statues on your shelves. These additions to your classroom would require a minimal investment in time and effort. Yet, they may provide students with a momentary escape into the bird world or spark a student's interest for a lifelong hobby.

With more forethought, these avian accessories could prove practical in the classroom. Teachers could actively seek items that complement their curriculum. Posters showing migration routes may be

relevant to geography teachers. Physics teachers could find a poster of geese in their famous V-formation to be helpful in a discussion of aerodynamics.

You can also use birds for classroom management strategies. A realistic duck decoy could be used as a paperweight for missed assignments. For added attention, use an eye-catching species like a Wood Duck or Northern Shoveler. Students would be responsible for obtaining this make-up work upon their return to school. A little reminder sign could read, "Don't DUCK your responsibility!"

Teachers can weave birds into their incentive programs by having their students "Soar with the Homework Hawk." You can hang a silhouette of a hawk high on your wall. As students complete their homework, they raise their own smaller hawk to the next level. A sign could encourage students to "Be a Buteo" by doing all of their work. (Buteos are the family of hawks that are known for soaring.)

Non-instructional staff can also use this idea in their offices. Owl likenesses can be appropriate for administrators as they evoke a sense of wisdom. Shorebirds searching for food with their long bills could give guidance counselors a metaphor for having students probe issues before jumping to conclusions. While coaches often use birds of prey to show power and dominance, they could try hummingbirds for agility and speed, flying flocks of blackbirds for teamwork, or even woodpeckers for toughness and hard work. School nurses could add a touch of humor to their offices with a photograph of a Killdeer's broken wing defensive behavior accompanied by a caption like, "It must be test day!" or "Was your project due?"

**Connect birds to your curriculum**—Incorporating birds into lessons will take some planning but it can also yield more benefits for your students. Tapping into the wildlife's motivational value, you can heighten student interest in classroom activities by making birds and other animals relevant to those tasks. This approach is just like using sports statistics when teaching students to calculate a mean or playing music for poetry lessons.

**WRITING**—Based on a photograph, each student could write a description of a bird detailing the bird's color patterns, overall structure, bill shape, and other characteristics. Make this activity interactive by having students exchange their written descriptions when completed. Then, students should draw the bird to the best of their ability using only their partner's passage. With a detailed and accurate description, even the most artistically challenged students can create a fair visual representation.

There are many pressing conservation issues threatening birds (and other wildlife) within our state. While unfortunate for our biodiversity, these provide your students with authentic persuasive writing opportunities. Your students could investigate and write to their legislators about issues such as the protection of Piping Plovers on our beaches, the population decline of the American Kestrel (North America's smallest falcon), or local habitat preservation.

**READING/LITERATURE**—From children's books to classic literature, bird references range from fleeting symbols to substantial characters. Jane Yolen has penned several picture books that involve birds, including the award-winning classic *Owl Moon* and a collection of poems titled *Bird Watch*. In Jean Craighead George's *My Side of the Mountain*, the main character befriends a Peregrine Falcon. Together, they face the challenges of surviving in the wild.

Birds also fly through the pages of more mature readings. In *The Devil's Arithmetic*, the author repeatedly references swallows flying around smokestacks. Scout Finch and her



One of Magpiong's students evaluates a green-winged Teal specimen, lists observations and checks a field guide to identify the species.



family deal with tough issues in *To Kill A Mockingbird*. In these titles, you can discuss the symbolic value of the winged cameos.

**MATH**—You may be thinking, “Birds have nothing to do with math.” The rebuttal is that math relates to everything—including birds. With this point settled, let’s jump into a few birding through math activities. Classes could participate in popular citizen science events like the Christmas Bird Count and Great Backyard Bird Count. Using [www.hawkcourt.org](http://www.hawkcourt.org), students could choose at least three species from a New Jersey hawk watch site, graph the data, and predict future migrations based on trends they identify.

**SCIENCE**—Life science classes are considered by many to be the most appropriate venue for bird education in schools. Yet, both earth and physical sciences affect the bird world.

Physical science classes could investigate the aerodynamic correlation between a bird’s flight style and its wing shape. Feathers of many species include colors and patterns within the ultraviolet end of the spectrum that are imperceptible to the human eye.

In earth science, geology lessons could include the role of bird excretions in erosion. This concept hit the headlines following Minnesota’s bridge collapse. Weather patterns affect the migration and feeding habits of birds. This month, southbound migrants are practically surfing along cold fronts with northerly winds. With an impending blizzard, birds flock to local feeders much the way shoppers flock to supermarkets for their essentials.

**SOCIAL STUDIES**—While the avian connections may be less apparent, the relevance of birds to social studies extends to all components of the curriculum. From geography to history to civics, feathered facts can help illustrate a concept or even be the primary focus of a lesson.

Eagles pop up throughout our nation’s history. These birds and their feathers are revered by Native American cultures. In 1782, the Bald Eagle became our national emblem—despite Ben Franklin’s lobbying for the Wild Turkey. The Migratory Bird Treaty Act of 1918 helped save many species, including the Bald Eagle.

Geography impacts migratory movements. Fearful of flying over water, many

migrant birds are funneled into the Cape May peninsula. The resulting concentrations of birds has made the area a world famous destination for birders.

**THE ARTS**—Birding and the arts have gone hand in hand for thousands of years. Students could be challenged to replicate the forms and plumage patterns of birds through various media. The avian palette serves as a model developing students’ feel for color through oils, watercolors, and pastels. With line drawings, students can capture their subjects’ true form and texture. Sculpture, pottery, and even woodworking would focus student attention on the physical structure of various species.

The beauty of bird song can highlight the true nature of music for aspiring musicians. Polyphonic music can be demonstrated by species that simultaneously perform two separate songs like thrushes, Brown-headed Cowbirds, and the ubiquitous European Starlings. A spring stroll outside will regale your students with a chorus of bird songs. The students could listen for the same unique melodies, rhythms, and timbres used by highly skilled birders to identify species.

**PHYSICAL EDUCATION/HEALTH**—With minor modifications, even physical education and health classes can go birding. The schoolyard classic “duck, duck, goose” could be updated by using species’ names and photos. Teachers could call the game “Mallard, Wood Duck, Snow Goose” and encourage young students to include as many duck species as possible. Health teachers can discuss outdoor options like hiking and birding as better recreational choices than AIM and video games. The simplest thing for phys ed teachers is to point out hawks and vultures soaring overhead when outside.

### Bring your students to the birds

Taking students birding requires the most teacher devotion; however, it also maximizes the benefits of birding for them.

Have students list the physical and behavioral characteristics of a few birds. Back in class, use a field guide and the notes to identify each species. For added incentive, have the students keep track of the birds they find each month to enter the New Jersey Schoolyard Birding Challenge. Later, you can refer to these specific birds in your classes.

An environment and lessons infused with birds will prove irresistible for students who possess the Natural Intelligence. Making connections between “their” birds and curricular content can heighten student motivation and understanding. Their improved ability to focus will allow students to remember more information. But first and foremost, your lessons will be memorable because you are a devoted teacher who is open to trying novel approaches for the benefit of your students. 🦉

*Dave Magpiong has worked in Voorhees Middle School since 1998. As a special education resource room teacher, he has taught reading, language arts, math, social studies, and science. He has shared birding knowledge with hundreds of students through class discussions, life bird celebrations, and a birding club. The VMS Viking Vultures have participated twice in New Jersey Audubon Society’s Annual World Series of Birding.*

*Magpiong is also director of the Fledging Birders Program, sponsored by National Biodiversity Parks, a N.J.-based non-profit environmental organization. He has participated in endangered species field research projects for state and federal governmental agencies and can be reached at Dayvm@aol.com.*

## Websites to help you get started

**[www.scottelowitzphotography.com](http://www.scottelowitzphotography.com)**—This New Jersey nature photographer has many images ideal for accessorizing your room with birds.

**[www.fledgingbirders.org](http://www.fledgingbirders.org)**—A web resource (created by the author) to help teachers and parents bring the benefits of birding to our youth. Feel free to ask for help in connecting your curriculum to the bird world.

**[www.birds.cornell.edu/AllAboutBirds](http://www.birds.cornell.edu/AllAboutBirds)**—A resource from the Cornell Lab of Ornithology that includes a virtual field guide.

**[www.audubon.org/bird/cbc](http://www.audubon.org/bird/cbc)**—The Christmas Bird Count takes place from Dec. 11, 2007 through Jan. 5, 2008.

**[www.birdsource.org/gbbc](http://www.birdsource.org/gbbc)**—The Great Backyard Bird Count occurs in mid-February.

**[www.fledgingbirders.org/challenge.html](http://www.fledgingbirders.org/challenge.html)**—Information about the N.J. Schoolyard Birding Challenge.