

LESSON FOR EDUCATORS

GRADES 6–12

These activities are designed to meet lab requirements for the Regents examination for the Living Environment and are appropriate for Grades 6–12.



The New York State Museum is a program
of The University of the State of New York
The State Education Department
Office of Cultural Education

READING EXERCISE

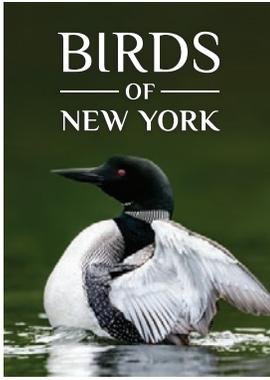
PESTICIDES, BIRDS, AND MUSEUM COLLECTIONS

FLIGHT PATHS

A FIELD JOURNAL OF HOPE,
HEARTBREAK, AND MIRACLES WITH
NEW YORK'S BIRD PEOPLE

DARRYL McGRATH





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OBJECTIVES

- 1 Students will read scientific literature to understand DDT's effect on raptor reproduction.
- 2 Students will analyze information to determine importance.
- 3 Students will create illustrations based on descriptive text.



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READING EXERCISE

PESTICIDES, BIRDS, AND MUSEUM COLLECTIONS

An interactive reading exercise based on excerpts from the New York State Museum's *Birds of New York* exhibit and the book *Flight Paths*, by Darryl McGrath.

INTRODUCTION

The newly renovated *Birds of New York* exhibition at the New York State Museum features an exhibit focusing on the extinction and recovery of specific birds in New York State. Museum specimens help tell the story of how birds, such as the Passenger Pigeon, have disappeared and how other species, such as the Peregrine Falcon, nearly went extinct due to the agricultural use of pesticides.

The Museum developed new curriculum materials that accompany *Birds of New York*. Below you will find background information and instructions for leading this science ELA activity with your students. On our Education Resources webpage, you'll find the Student Handout part of the lab to print and distribute to your students.

In addition to this ELA activity, find other classroom activities related to bird research and conservation on our website: www.nysm.nysed.gov/education.

The New York State Learning Standards met in this lesson are listed at the end of this guide. For more information on the standards, visit www.nysed.gov/next-generation-learning-standards.

ABOUT THIS LESSON

The twentieth century witnessed the use of new chemicals to address technical and social problems—but many of these same applications had detrimental effects on the natural environment. This lesson is based on the text of our newly renovated exhibit and excerpts from the book *Flight Paths: A Field Journal of Hope, Heartbreak, and Miracles with New York's Bird People*, by Darryl McGrath, published by SUNY Press in 2016 to explore DDT's effect on raptor reproduction, while exercising students' abilities to read and understand scientific literature. This classroom activity can be used as a Living Environment or English Language Arts lesson, and is appropriate for Grades 6–12 and meets science standards.

MATERIALS

- Student worksheets with text to read and space for written answers
- Pen or pencil

SCIENCE LAB EXPLORING DDT'S EFFECT ON RAPTOR POPULATIONS

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DESCRIPTION

On the NYS Museum website you will find the Student Handout for the interactive reading exercise. This PDF can be printed on the fronts and backs of two sheets of paper and distributed to students working in pairs.

PART 1. TEACHER-GUIDED SUMMARIZING

Discuss what a summary is. Then, using the first paragraph of the exhibit text provided in the Student Handout, demonstrate at the board how to summarize by reading the first paragraph and summarizing for the students, stopping to ask for their input and ideas. The chart below has been provided to assist with student understanding. For the second paragraph choose a student to read aloud, and students will summarize as a class with teacher guidance.

RETELLING	PARAPHRASING	SUMMARIZING
Repeating what the author said using the author's language. ("The author said...")	Restating what the author said using language different from the author's. ("Pesticides are bad for birds because they mess up their eggs.")	Condensing what the author said using key language from the text to capture the main points. ("Basically, the problem with DDT was...")

PARTS 2, 3, AND 4. STUDENT INTERACTIVE READING GUIDE

Students work in pairs to complete the rest of the exercise following the numbered instructions on the handout. There are spaces on the handout for jotting in the margins, drawing pictures, and writing sentences.

NEW YORK STATE LEARNING STANDARDS

Science Standards:

www.nysed.gov/common/nysed/files/programs/curriculum-instruction/p-12-science-learning-standards.pdf

- MS-LS2-4
- HS-LS2-2
- HS-LS4-5

Reading Standards for Literacy in Science and Technical Subjects 6–8:

www.nysed.gov/common/nysed/files/programs/curriculum-instruction/nys-next-generation-literacy-standards-grades-6-12.pdf

- RST1
- RST2
- RST4

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6–8:

www.nysed.gov/common/nysed/files/programs/curriculum-instruction/nys-next-generation-literacy-standards-grades-6-12.pdf

- WHST4



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Cover Photo

*Flight Paths: A Field Journal of Hope, Heartbreak, and Miracles
with New York's Bird People*, by Darryl McGrath,
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