

NGS
MAGNIF/ED

NOVEL STUDY



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THE SECRET LANGUAGE OF BIRDS

Novel Studies in the Science Classroom: Developing Science Literacy Skills

Today struggling readers face many long-term challenges and are more at risk of falling behind. However, science is a great way to engage students, no matter their background. NGS Magnified has created novel studies for teachers to use in the science classroom to help bridge that gap. Novel studies help build rapport with students while supporting and fostering independent learning. In addition, we believe that using novel studies in the science classroom will expose students to different perspectives and help them understand how science vocabulary applies to so many events in their lives.

Research shows that connecting content and skills from other subjects enhances students' learning and improves their comprehension.

- *The literacy from reading can easily come from non-fiction and fiction novels that surround a science-related topic and are far more of a high-interest read for the majority of students than reading a textbook (Anderson & Hite, 2010; Batchelor, 2017; Coiro, 2012; Freudenrich, 2000).*
- *Science fiction novels are an excellent way to engage students in science ideas while also helping students improve their literacy skills. (Creech and Hale, 2006)*
- *Teachers can add in other readings from the internet and news articles which brings the reading level down to a more manageable level, however students are more willing to learn and spend the time to learn new vocabulary when highly engaged in what they are reading (Weinbugh et al., 2014).*

NGS Magnified novel studies heavily focus on the following:

- vocabulary
- reading comprehension
- simple research
- cross-curricular connections
- culminating final project

Students will focus on inquiry skills such as comparing and contrasting, summarizing, making inferences, cause/effect relationships, fact and opinion, and critical thinking.

Happy reading,
Erica



An instant *USA Today* bestseller! From the award-winning author of *Song for a Whale* comes a poignant and heartwarming tale about a girl who discovers a pair of endangered birds about to lay eggs in the marshes of her summer camp...and the secret plan she hatches to help them.

Nina is used to feeling like the odd one out, both at school and in her large family. But while trying to fit in at summer camp, she discovers something even more peculiar: two majestic birds have built a nest in the marsh behind an abandoned infirmary. They appear to be whooping cranes, but that's impossible—Nina is an amateur bird-watcher, and all her resources tell her that those rare birds haven't nested in Texas for over a hundred years.

When Nina reports the sighting to wildlife officials, more questions arise. Experts track all the endangered birds, but they can't identify the female bird that Nina found. Who is she, and where did she come from?

With the help of some fellow campers, Nina sets out to discover who the mystery bird really is. As she gets closer to the truth, will she find a flock of her own?

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**Check out the following sample pages
focusing on science vocabulary, reading
comprehension, and literacy-based projects!**

Teacher Guide included!

Find out what students already know.

THE SECRET LANGUAGE OF BIRDS

Before You Read

Directions: Research and complete the chart below by filling in the conservation status, habitat, and reasons for decline for each listed bird species that are endangered or extinct. Find your own example for the final box.

Bird Species	Conservation Status
Whooping Crane	
California Condor	
Ivory-billed Woodpecker	
Yellow-eyed Penguin	
Passenger Pigeon	

THE SECRET LANGUAGE OF BIRDS

WORD STUDY: Chapters 1-3

1. Birds

Birds are endothermic vertebrates. What does endothermic mean?

2. Houston/Austin

Approximately how many miles are between Houston and Austin? How many feet? How many inches?

miles

THE SECRET LANGUAGE OF BIRDS

WORD STUDY: Chapters 1-3

7. Squirrels

A squirrel is a small mammal. What are two characteristics that all mammals share?

8. Perch

Draw a picture that correctly shows the definition of the word *perch*.

may use to

THE SECRET LANGUAGE OF BIRDS

WORD STUDY: Chapters 1-3

13. Zugunruhe

Definition:

14. Migrate

Use the word *migrate* correctly in your own sentence.

9. Rustled

Use the word *rustled* correctly in your own sentence.

11. Whale

List three different types of whales.

1.

2.

15. Internship

What is the purpose of an internship?

16. Flowers

Describe the function of the stems of a flower.

17. Captivity

Identify two synonyms for the word *captivity*.

18. Wings

Draw a picture of a bird and label its *wings*.

Reading Check: Chapters 1-6

Directions: Answer the following questions in complete sentences.

1. Imagine you were left behind at a gas station. How would you feel?

2. Why can making friends sometimes be challenging?

3. Nina's aunt Audrey
different birds she
dependent have w

4. What birds didn't

5. What interesting f

Reading Check: Chapters 7-12

Directions: Answer the following questions in complete sentences.

1. Why does fire keep bugs away?

2. Why was Josephine quarantined in the infirmary? What happened to her?

3. Why did Emma end up getting detention?

4. Back in the 1800's, how did they use to study and learn about birds?

5. Why wasn't Nina in a rush to tell everyone about the whooping crane discovery?

Each section has reading comprehension questions to track student progress and understanding.

Novel Project option

THE SECRET LANGUAGE OF BIRDS

Final Project: Importance of Keystone Birds

Project Overview:

In this project, you will explore the role of keystone species in ecosystems, with a focus on endangered birds. Keystone species are organisms that play a unique and critical role in maintaining the structure of their ecosystems. Without them, the ecosystem could be drastically different or even collapse. By researching one of these remarkable birds, you'll discover why it's a keystone, understand its ecological role, and learn about its threats.

Project Objectives

- Understand the role of keystone species in an ecosystem.
- Research and identify a bird that is also a keystone species.
- Develop skills in research and presentation.

Directions

1. Introduction

Start by researching keystone species. These species are essential for the health of an ecosystem. Use encyclopedias, online resources, and books to learn more.

2. Choose a Bird

From the list provided, choose one endangered bird to research. This bird will be the focus of your project.

California Condor – North America	Bald Eagle – North America
African Grey Parrot – Africa	Red-crowned Crane – Asia
Spoon-billed Sandpiper – Asia	Marauding Kingfisher – Freely Distributed

THE SECRET LANGUAGE OF BIRDS

Final Project: Importance of Keystone Birds

3. Research Your Chosen Bird

- **Vulnerability and Conservation Status:** Is your bird listed as endangered, critically endangered, or vulnerable? Describe why it's at risk and any conservation efforts in place to protect it.
- **Ecological Role:** What role does this bird play in its ecosystem? How does it influence other species, vegetation, and the overall health of the ecosystem?
- **Threats and Challenges:** What are the main threats to this bird (e.g., habitat loss, climate change, pollution)?
- **Impact of Loss:** What would happen to the ecosystem if this bird disappeared? Describe how the absence of this species could lead to changes in the ecosystem.

4. Presentation

Organize your findings into a clear and engaging presentation. You can choose a format (e.g., poster, slideshow, written report) based on your teacher's requirements. Your presentation should include images, diagrams, or charts to help illustrate your points.

5. Reflection

Conclude your project with a brief reflection. Why do you think conserving keystone species like your chosen bird is important? What new perspectives did you gain from this research?



Thank you for sharing NGS Magnified with your students!

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