

EXPLORER CLASSROOM WILDLIFE SERIES

The following missions will help students develop their own Explorer Mindset as they investigate the wildlife in their local community. Drawing on inspiration and information from National Geographic Explorers, students will...

1. Identify and observe local wildlife to stimulate curiosity and inquiry.

- 2. Create maps to identify patterns of wildlife observation in their community.
- 3. Write stories to promote understanding of and empathy for wildlife.
- 4. Develop a plan to protect local wildlife.

Grades: 3-8 Subjects: Science, ELA, Social Studies, Geography, Civics, Arts & Media

Essential Questions:

Why does wildlife matter?

How are we connected to wildlife in our local community?

What can I do to protect wildlife?

Key Concepts to Be Explored Throughout the Missions:

- Endangered Species
- Biodiversity
- Habitat/Habitat Loss
- Wildlife
- Coexistence

Navigate this Educator Guide:

INTRODUCTION PRE-MISSION: Explore Local Wildlife MISSION ONE: Spot the Wildlife Around You MISSION TWO: Map Your Local Wildlife MISSION THREE: Tell Wildlife Tales MISSION FOUR: Take Action to Help Wildlife POST MISSION: Reflection



INTRODUCTION

Welcome to the Explorer Classroom Wildlife Series! You and your students will be heading on a journey to explore wildlife globally, while taking action locally! Along the way, National Geographic Explorers will bring science, exploration, conservation, and storytelling to life through five live virtual events.

As students learn about the actions Explorers are taking to protect species, they will also conduct their own expeditions to spark their curiosity and deepen their connection to local wildlife.

This Wildlife Series is accompanied by a pre-mission and four missions, all short activities for your students to complete in class or at home that will help them demonstrate what it means to be an Explorer in their local community.

Through the missions, your students will develop an <u>Explorer Mindset</u>: the attitudes, skills, and knowledge that embody what it means to be a National Geographic Explorer. Everyone has the potential to build an Explorer Mindset, driving us to ask questions, seek knowledge, and think critically and creatively to help solve challenges both locally and globally. This series will emphasize three key attitudes Explorers bring to their work: Curiosity, Empathy, and Empowerment.

Series Resource: Explorer Classroom Wildlife Series: Event Notes and Reflection Explorer Classroom Wildlife Series: Event Notes and Reflection

Use this handout during each Explorer Classroom event to help students record what they learned about wildlife from each Explorer, while also reinforcing the attitudes, skills, and knowledge of the Explorer Mindset.

<u>NOTE</u>: The handouts in this series are presented as Open Education Resources in GoogleDocs. You may print them or create a local version by selecting "File>Make a Copy."



Pre-Mission: Explore Local Wildlife

To kick off this experience, you will first guide your students to learn about the wildlife in your own community, including species they might not even think live nearby. Your class will use the online tool <u>iNaturalist.org</u> to find data about the wildlife that has been observed in your local area. Students will not need to download or log in to the iNaturalist app to complete this activity. They will only need to view the website.

Student Briefing: iNaturalist Wildlife Exploration

To see evidence of the wildlife that lives in and around their community, students can access the observation data on <u>iNaturalist.org</u>. iNaturalist is a free tool that allows people to document animals, plants, fungi, and other organisms they observe all over the world. People share their observations on the website. Using the worksheet below, students will explore those recorded observations.

Mission Resources: Pre-Mission: Exploring Local Wildlife with iNaturalist

<u>Pre-Mission Briefing Video</u>: Share with your students to prep for the program **Pre-Mission: Exploring Local Wildlif**e

Educator Guidance

Ask students to predict the following: How many different species might people have observed in our city/town? Which species do you think people have observed the most often? Where might people have observed and documented the most wildlife in our area? Give students the handout with instructions for the activity. To simplify this activity for younger students or shorter schedules, use only the first page.

At top left on the iNaturalist.org main page, choose "Explore." Type in the location box the name of their city or town, and select "Go." Then select the "Species" tab. Ask them, *How many species have been observed in this place? Was our class prediction close?* Use the handout in small groups to allow students to record what they notice and wonder about these species as they scroll through them.

For older students, use page 2 of the handout. Students can explore the map to see patterns of where the observations have been made in their city or town. They can then filter the data to determine whether there are observations of vulnerable or endangered species in their area.



Optional Extension Activity

Help students think like a National Geographic Explorer with some "would you rather..." questions. If moving around the room is possible, write each pair of options on paper and place these on opposite sides of the classroom. After you ask a question, encourage students to move to the side of the classroom with their preferred answer. Once students have divided, they can discuss their preferences in their group and share their ideas.

Imagine you are a National Geographic Explorer. Would you rather ...

- explore a place on land or in the ocean?
 - Why? What might be challenging about this exploration?
 - What wildlife might you see?
- explore icy environments near the poles or in tropical rain forests along the equator?
 - How might you prepare for that environment?
 - What wildlife might you see?
- explore a coral reef, or a snow-capped mountain range?
 - What wildlife might you see?
- explore an urban area during the daytime or nighttime?
 - What wildlife might you see?
 - When do you think you would see more wildlife? Why?

If moving around the room is not ideal, students could instead jot down their preferences, talk with a partner, and then share with the class.

To wrap up the discussion, create a list of questions National Geographic Explorers could help students to answer. Post these on the board or wall to return to throughout the Explorer Classroom Wildlife Series.

MISSION ONE: Spot the Wildlife Around You

Curiosity: Identify and observe local wildlife to stimulate curiosity and inquiry

Whether in urban, rural, or suburban areas, it's possible to find wildlife and biodiversity by taking time to focus and observe outdoors. Given the opportunity, students might be surprised by the sights, sounds, and smells of the natural world surrounding them.



From birds flying overhead, squirrels jumping in trees, or bees buzzing by tiny flowering weeds, it's possible to find these wonders almost anywhere. Everyone has wildlife around them no matter where they are!

Student Briefing: Adopt a Spot

Talk with students about the wildlife in their community, giving them an opportunity to share what they have seen or heard others describe. Next, task students (either at school or at home) with observing nature around them for five minutes as they "Adopt a Spot." Have each student go outdoors with the handout below, a pencil, and book or clipboard to write on so they can make notes and sketch as they observe. Have students take these steps:

- 1. Find their spot by a tree, shrub, grass, or open soil. Tell them to give their spot a name on the handout.
- 2. While standing, they should look up, down, and all around, and make notes of anything living that they observe.
- 3. Next, they should close their eyes and listen. In some places, human-made noises may obscure natural sounds, so encourage careful listening.
- 4. Finally, students should kneel or sit down. Tell them to look under fallen leaves or gently lift rocks, noticing anything moving. Have them describe anything they notice.
- 5. If students cannot see any wildlife in five minutes, ask them to consider why they did not see any. What did they think they would see? What might make that spot more likely to have wildlife and why?

Note: When assigning this mission as homework, brainstorm possibilities with students who say they can't access an outdoor location, such as observing through a window.

Mission Resource: Mission One - Adopt a Spot

😑 Mission One - Adopt a Spot

Educator Guidance

Back in class, talk about the experience and create a whole-class list of wildlife observed, with descriptions of where.

- How many species were observed in total?
- Which spot locations had the most sightings?
- Does this list seem to represent the biodiversity of their community? Why or why not?
- How do these wildlife observations represent an interconnected web of life?



Help students think about how humans are part of this interconnected system, coexisting with plants, animals, and all living things.

If a number of students were not able to observe any wildlife in their spot, brainstorm reasons why wildlife might be absent. What factors might keep it away? How did these factors develop?

Add any new questions about local wildlife to their Explorer Classroom Wildlife Series questions list and prepare questions they could ask the Explorer during the session.

MISSION TWO: Map Your Local Wildlife

Curiosity and Applying Geographic Practices: Create maps to identify patterns of wildlife observation in their community

In this mission, students will visualize where wildlife may be active around their community.

Student Briefing: My Wildlife Map

In this mission, students map community wildlife encounters of their own and of family or friends. Have students use <u>National Geographic's MapMaker</u>, with instructions in the handout below, to create a map of their school grounds or the area around their home. Teachers may want to print an outline map ahead of time. The students will note where they have seen wildlife in this area.

Next, ask students to interview at least one friend or family member for locations of their wildlife sightings. Ask for stories of memorable wildlife sightings or of the species they see often and where. Add these to the map.

Mission Resource: Mission Two - My Wildlife Map Mission Two - My Wildlife Map

Educator Guidance

In class, debrief with students. Ask:

- In what types of places was wildlife observed? Why might this be?
- Where was it observed less often? Why might this be?
- Where do you expect wildlife might have trouble living?



To stimulate conversations, remind students of some of the challenges that Explorers have outlined for species in their Explorer Classroom events. Encourage connections between those global challenges and local problems.

If students did not have many memories of wildlife in their selected community location, ask them to identify features on the map that might make it difficult for wildlife to thrive. Consider:

- What would you change on this map to make the area better for wildlife?
- How would these changes impact people living in or using this area?

MISSION THREE: Tell Wildlife Tales

Empathy and Communication: Write stories to promote understanding of and empathy for wildlife

In this mission, students use their creativity to build empathy for wildlife in their local area. Ask each student to choose an animal in their local area that interests them. Explain that they will have the opportunity to brainstorm questions they would want to ask that animal. Then, they will use their questions to write a story about that animal's experience. If they have time, students can conduct research on their animal to add details to their story.

Student Briefing: 10 Questions and Diary Entry

Give students the 10 Questions brainstorming handout below to consider the experiences of their chosen animal. Students will ask questions about the animal that they think would help "tell" the animal's story. They can begin with things students might already know such as ...

- What does it eat?
- What conditions does it need to live?
- What experiences might it have with humans or human places?

See a 10 Questions example to show students <u>here</u>.

Building on their questions, have them write "A Day in the Life of a _____" diary entry. As an example, they may review <u>this excerpt</u> from the diary of Ali, the African Elephant.



Mission Resources: Mission Three - 10 Questions and Diary Entry Mission Three - 10 Questions and Diary Entry

Educator Guidance

If students are struggling to brainstorm questions, model one or two, pause to allow students to add one or two more, then share. This should stimulate thinking for classmates. If time allows, students can use the wildlife guide from the <u>National</u> <u>Wildlife Federation</u> to learn more about their animal.

Consider encouraging older students to choose a threatened or endangered species, using what they learned from iNaturalist.org or <u>searching this database for their</u> <u>county</u>.

Have the class determine how to display and share the wildlife questions and the stories they have created, helping others to learn about these important neighbors. Encourage them to continue asking questions about the lives of the animals presented by their classmates.

MISSION FOUR: Take Action to Help Wildlife

Empowerment and Problem-Solving: Develop a plan to protect local wildlife

Your students have been on quite a journey with wildlife, generating curiosity, practicing observation, mapping local species, and creating stories to build empathy. Revisit the Essential Questions based on what they have learned from Explorers and from their own missions:

- Why does wildlife matter?
- How are we connected to wildlife in our local community?
- What can I do to protect wildlife?

Emphasize that National Geographic Explorers work to illuminate and protect the wonder of our world one challenge at a time. Often, their work makes other people care about a problem and invites them to be a part of a solution.

Student Briefing: Problem/Solution and Advocacy

Have students generate a list of challenges that wildlife faces in your community. Have the small groups choose one problem from their list and record it and the wildlife



affected in the Problem/Solution planner below. Then discuss and record a possible solution that they can help contribute to.

Have students individually or in groups create a one-page visual that promotes their solution for wildlife to their community. This can be a brochure, flier, poster, or something more creative. Students should be prepared to discuss how their visual relates to their problem/solution organizer and what they have learned from Explorers throughout the Explorer Classroom Wildlife Series.

Mission Resources: Mission Four - Wildlife Campaign: Problem/Solution Planner

Educator Guidance

If students struggle to identify problems, ask them to consider where wildlife thrived or did not thrive on their maps. Also remind of the Explorers and the challenges faced by the wildlife that they work with. Are there similar challenges to wildlife in their own communities?

Once students have created their Problem/Solution Planners, post them on the walls and rotate students around the room to see them all. Allow students to post notes with additional ideas.

As students plan their visual final project, ask them to draw inspiration from the Explorers. What have they learned about the interconnectedness of life? How can they make others care and take action to protect wildlife?

Post Mission: Reflection

As you finish this Explorer Classroom Wildlife Series, take a moment with your students to reflect on what they have learned about Wildlife and how their Explorer Mindset has developed. Use the Post-Mission Reflection handout below to give students a chance to look back on their experience. If time permits, discuss their responses to find commonalities and patterns.



Post Mission Resources: Post Mission Reflection Post Mission Reflection - Wildlife Series

Optional Extension Activities:

Are your students motivated to do more? Here are some ways students can explore further:

- Take biodiversity exploration further by observing and documenting wildlife with the <u>iNaturalist</u> app and the <u>Seek</u> app (for 12 and under). Your students could organize a <u>BioBlitz</u> event, bringing experts together with community members to count and learn about the species in the area.
- Encourage students to take their ideas for action to the next level through National Geographic's <u>Slingshot Challenge</u>, where students ages 13–18 submit a one-minute video describing their idea for solving environmental issues. Even if your students are 12 years old or younger, they can follow the process and create great videos to share in class or with the community. Your students' ideas can lead to taking action to protect wildlife.
- Learn more about wildlife in your community. Research local wildlife conservation or wildlife rehabilitation organizations to find out how you can help.

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