



# TEACHER'S GUIDE

PATHFINDER AND ADVENTURER | VOL. 20 NO. 4

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## LEXILE® FRAMEWORK LEVELS

### PATHFINDER

Newfoundland Wildlife	690L
Mishmash Mammal	710L
The Wonder of the Falls	820L

### ADVENTURER

Newfoundland Wildlife	820L
Mishmash Mammal	940L
The Wonder of the Falls	840L

## STANDARDS SUPPORTED

- Common Core State Standards (CCSS)
  - Next Generation Science Standards (NGSS)
  - C3 Framework for Social Studies State Standards (C3)
- See each lesson for the specific standard covered.

Educational consultant **Stephanie Harvey** has helped shape the instructional vision for this Teacher's Guide. Her goal is to ensure you have the tools you need to enhance student understanding and engagement with nonfiction text.



Visit [EXPLORERMAG.ORG](http://EXPLORERMAG.ORG) to access digital issues of Explorer magazine in **English** and **Spanish**. Engage students with digital read-alouds, videos, and interactive activities.

# NATIONAL GEOGRAPHIC LEARNING FRAMEWORK

## INTRODUCTION

### BACKGROUND

Since 1888, the National Geographic Society has funded scientists and explorers and shared their findings with the world. To support educators who use our resources, we have created a Learning Framework, which lays out what we believe students should learn from their experiences with the Society.

### PURPOSE

The Learning Framework was designed to convey the Society's core beliefs and values. It is built around a set of attitudes, skills, and knowledge that embody the explorer mindset.

To determine the learning outcomes within the Learning Framework, we dug deep into national standards in key subject areas. We also sought advice from subject matter and child development experts, along with the combined expertise of NG instructional designers, researchers, and content developers. To learn more, go to: <https://www.nationalgeographic.org/education/learningframework/>.

### IMPLEMENTATION

Each article in this magazine has a knowledge-based link to the Learning Framework.

## MINDSET OF AN EXPLORER: KEY FOCUS AREAS

### ATTITUDES



**CURIOSITY** An explorer remains curious about how the world works throughout his or her life. An explorer is adventurous, seeking out new and challenging experiences.

**RESPONSIBILITY** An explorer has concern for the welfare of other people, cultural resources, and the natural world. An explorer is respectful, considers multiple perspectives, and honors others regardless of differences.

**EMPOWERMENT** An explorer acts on curiosity, respect, responsibility, and adventurousness and persists in the face of challenges.

### SKILLS



**OBSERVATION** An explorer notices and documents the world around her or him and is able to make sense of those observations.

**COMMUNICATION** An explorer is a storyteller, communicating experiences and ideas effectively through language and media. An explorer has literacy skills, interpreting and creating new understanding from spoken language, writing, and a wide variety of visual and audio media.

**COLLABORATION** An explorer works effectively with others to achieve goals.

**PROBLEM SOLVING** An explorer is able to generate, evaluate, and implement solutions to problems. An explorer is a capable decision maker—able to identify alternatives and weigh trade-offs to make a well-reasoned decision.

### KNOWLEDGE



**THE HUMAN JOURNEY** An explorer understands where we came from, how we live today, and where we may find ourselves tomorrow.

**OUR CHANGING PLANET** An explorer understands the amazing, intricate, and interconnected systems of the changing planet we live on.

**WILDLIFE AND WILD PLACES** An explorer reveals, celebrates, and helps to protect the amazing and diverse creatures we share our world with.

**Fourth Grade Standard Supported**

- **CCSS Reading Informational Text:** Determine the main idea of a text and explain how it is supported by key details; summarize the text. (4-2)

**Fifth Grade Standard Supported**

- **CCSS Reading Informational Text:** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. (5-2)

**What You Will Need**

- “Newfoundland Wildlife” (*Explorer*)
- Think Sheet (Teacher’s Guide, pages 5-6)
- Pencils

**CONNECT & ENGAGE (5 minutes)**

*Display the first page of “Newfoundland Wildlife.”*

**Say:** Take a look at the first page of the article “Newfoundland Wildlife.” Before even starting to read an article, you can learn a lot from the title and the photos. They can start you thinking and wondering.

**Say:** But before we really dig into this article, I want to show you how we turn and talk throughout a lesson. It’s important to talk about what we are thinking. Sharing our thoughts helps us learn from one another, and it helps us understand what we are viewing and reading in the text.

**Say:** Can I get two volunteers to help me? Wonderful! When I ask you to turn and talk, turn and look at each other. You don’t need to move your whole body, just turn slightly so you can look at each other and politely have a conversation. That’s it. Nice job, volunteers!

**Say:** All right, now that we’ve seen a good model of turning and talking from our volunteers, turn to the person next to you and talk about what you are thinking about this first page of the article. Share your thoughts about the title and photo.

*Kids turn and talk.*

**MODEL (10 minutes)**

*Display the next page of “Newfoundland Wildlife.”*

**Say:** When we read or listen to an article or a story, we start thinking about what we are reading or hearing. We think about connections we have to the information or to the photos. We might be reminded of something we know or of a place we’ve been. Or we could start wondering

or have questions about something.

**Say:** Thinking is so important! Thinking is the key to understanding what you are seeing, listening to, or reading about.

**Say:** Let’s look at part of this page. I’m going to show you how I think about things. On this page, the first things I notice are the map and the photo. I have never been to Newfoundland, so I like being able to see where in the world Newfoundland is. I have also never seen caribou in person, so I really want to look at them closely. I wonder if caribou and reindeer are the same animal. I’m going to have to look that up to find out. I’m already very curious before I even start to read the text. Next I’m going to read aloud the text on this part of the page, so follow along.

*Read aloud the paragraphs where the author talks about herself and taking photos of the caribou.*

**Say:** All right, now I know the author lives on Newfoundland and is a marine biologist. I also found out that caribou are hard to see in the wild and generally avoid people, so it’s pretty cool that she was able to get these photos of a caribou herd grazing before they got wise to her and moved on.

**Say:** I’m thinking we got a few clues here about what’s to come in the article, since the author mentioned she sees animals on the island from the sea, sky, and land. She also said she will tell us about a few of these animals. I now know that caribou are land animals, so I’m guessing we’ll hear about sea and sky animals next, or maybe even some other land animals, too. I’m going to write down my thinking on a Think Sheet square.

**Say:** It’s your turn. Turn and talk with a partner about what you are thinking about this.

*Kids turn and talk.*

**GUIDE (10 minutes)**

*Make sure kids have access to their own Think Sheets. Display the next section of “Newfoundland Wildlife.”*

**Say:** Let’s move on to the next section. Look at the photos as I read aloud. On your Think Sheets, write what you are thinking. I will do the same, after I finish reading aloud.

**Say:** When you finish writing, turn and talk about your thinking.

Give kids time to turn and talk and share what they wrote with a partner.

**Say:** I’m curious to hear about your thinking. Who would like to share with the class what you were thinking?

*Kids share out.*

**Say:** That’s great thinking, everyone. I had some of the same thoughts you did. Here are some of the things I wrote down about my thinking.

- I was glad to have the photos to see what the anemones look like. I could get a sense of their squishy bodies and how their long tentacles could sting prey that get too close.
- I could picture the shimmering capelin putting on their show of jumping onto the rocky beaches. The author’s description helped me paint that picture in my mind.
- I loved seeing the whale’s tail in the water, and I imagined how beautiful it would look to see that in person.

**COLLABORATE (25 minutes)**

**Say:** Next, work with a partner. Read the text. You can read the text silently or take turns reading it aloud to each other. After reading, turn and talk with your partner. What new information have you found out about the animals on Newfoundland? What has the author shared about these animals? What else do you wonder about? What questions do you have? Write your thinking on your Think Sheets.

*Allow kids time to read, turn and talk, and write.*

**Say:** Keeping in mind any questions you wrote down on your Think Sheets, continue reading to the end of the article. Follow the same process—read, turn and talk, and then write about your thinking.

*Give kids time to read and talk about their thinking and get their thinking recorded on their Think Sheets.*

**Say:** Once again, I’m very curious about your thinking. Do you have any thoughts about the author and the animals she wrote about? Who would like to share their thoughts with the class?

*Give kids time to share out.*

**Say:** Your thinking is just awesome, class! I’m so impressed with not only your thinking but also the way you have been talking with one another about your thinking.

**SHARE THE LEARNING (10 minutes)**

**Say:** Let’s get together and talk about what we learned. I learned that it’s important to think and write about what you are reading and viewing. Who else would like to share something they learned? You can share something you wrote on your Think Sheet.

*Allow time for kids to share their learning.*

**Say:** Does anyone want to share something they are still curious about or still wonder about the author, Newfoundland, or the land, sea, and sky animals in and around Newfoundland? Remember that as we read, we might have questions that aren’t answered in the text. We may need to find those answers somewhere else. We can write down your questions and decide if we’d like to research to find the answers later on.

*If kids have questions they still wonder about, you might want to write them down and choose a few to research as a class.*

**Say:** I’ve always loved reading about animals and about new places. Wouldn’t it be fun to travel to Newfoundland and see some of these animals in person? Great work today, class!

**THINK SHEET**

Write your thoughts in each column.

IMAGES (PHOTOS, MAPS, DIAGRAMS)	TEXT	HOW THEY HELP ME UNDERSTAND

**HOJA DE PENSAR**

Escribe tus ideas en cada columna.

IMÁGENES (FOTOS, MAPAS, DIAGRAMAS)	TEXTO	CÓMO ME AYUDAN A COMPRENDER

## LESSON FRAME Think, Write, and Talk About the Text

This frame is a template of the language arts lesson. It has the instructional moves and language of the lesson, but the specific content has been removed. This way you can use the Lesson Frame for the other articles in the issue or for any nonfiction text you might be teaching.

### What You Will Need

- Nonfiction text
- Think Sheet template
- Pencils

### CONNECT & ENGAGE (5 minutes)

*Display the first page(s) of the article.*

**Say:** Take a look at the beginning of the article. Before even starting to read, you can learn a lot from the title and the pictures. That alone starts you thinking and wondering.

**Say:** But before we really dig into this article, I want to show you how we turn and talk throughout a lesson. It's important to talk to one another about what we are thinking. Sharing our thoughts helps us learn from one another, and it helps us understand what we are viewing and reading in the text.

**Say:** *Can I get two volunteers to help me?* Wonderful! When I ask you to turn and talk, turn and look at each other. You don't need to move your whole body, just turn slightly so you can look at each other and politely have a conversation. That's it. Nice job, volunteers!

**Say:** All right, now that we've seen a good model of turning and talking from our volunteers, turn to the person next to you and talk about page(s) \_\_\_\_\_. Share your thoughts about the title and the pictures.

*Kids turn and talk.*

### MODEL (10 minutes)

*Display the next page(s) of the article.*

**Say:** When we read or listen to an article or a story, we start thinking about what we are reading or hearing. We think about connections we have to the information or to the pictures. We might be reminded of something we know or of a place we've been. Or we could start wondering or have questions about something.

**Say:** Thinking is so important! Thinking is the key to understanding what you are seeing, listening to, or reading about.

**Say:** Let's look at page \_\_\_\_\_. I'm going to show you how I think about things. On this page, the first thing I notice is \_\_\_\_\_. I start to wonder if this is \_\_\_\_\_. Then I notice \_\_\_\_\_. Now I know \_\_\_\_\_. That's good for me to know before I read on. Next I'm going to read aloud the text on the page, so follow along.

Read aloud the text on page \_\_\_\_\_.

**Say:** All right, now I know \_\_\_\_\_. I'm going to write down my thinking on a Think Sheet square.

**Say:** It's your turn. Turn and talk with a partner about what you are thinking about these pages.

*Kids turn and talk.*

## GUIDE (10 minutes)

*Make sure kids have access to their own Think Sheets. Display the next page(s) of the article.*

**Say:** Let's move on to page(s) \_\_\_\_\_. Look at \_\_\_\_\_ as I read aloud. On your Think Sheets, write what you are thinking. I will do the same, after I finish reading aloud.

**Say:** When you finish writing, turn and talk about your thinking.

Give kids time to turn and talk and share what they wrote with a partner.

**Say:** I'm curious to hear about your thinking. Who would like to share with the class what you were thinking?

*Kids share out.*

**Say:** That's great thinking, everyone. I had some of the same thoughts you did. Here are some of the things I wrote down about my thinking.

## COLLABORATE (25 Minutes)

**Say:** Turn to page(s) \_\_\_\_\_. This time, work with a partner. Read the text. You can read the text silently or take turns reading it aloud to each other. After reading, turn and talk with your partner. What new information have you found out about \_\_\_\_\_? What else do you wonder about? What questions do you have? Write your thinking on your Think Sheets.

*Allow kids time to read, turn and talk, and write.*

**Say:** Keeping in mind any questions you wrote down on your Think Sheets, continue reading to the end of the article. Follow the same process—read, turn and talk, and then write about your thinking.

*Give kids time to read and talk about their thinking and get their thinking recorded on their Think Sheets.*

**Say:** Once again, I'm very curious about your thinking. Were all your questions and wonderings answered? Who would like to share their thoughts with the class?

*Give kids time to share out.*

**Say:** Your thinking is just awesome, class! I'm so impressed with not only your thinking but also the way you have been talking with one another about your thinking.

## SHARE THE LEARNING (10 minutes)

**Say:** Let's get together and talk about what we learned. I learned that it's important to think and write about what you are reading and viewing. Who else would like to share something they learned? You can share something you wrote on your Think Sheet.

*Allow time for kids to share their learning.*

**Say:** Does anyone want to share something they are still curious about or still wonder about this article? Remember that as we read, we might have questions that aren't answered in the text. We may need to find those answers somewhere else. We can write down your questions and decide if we'd like to research to find the answers later on.

*If kids have questions they still wonder about, you might want to write them down and choose a few to research as a class.*

**Say:** It's amazing how much you've learned about the importance of thinking, writing, and talking about your reading. Thank you so much for sharing your thinking and your learning. Great work today, class!

# NEWFOUNDLAND WILDLIFE

## SCIENCE

### Standards Supported

- **NGSS ESS2.E: Biogeology:** Living things affect the physical characteristics of their regions. (4-ESS2-1)
- **NGSS LS2.A: Interdependent Relationships in Ecosystems:** Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)

### What You Will Need

- Interactive Digital Magazine
- Content Assessment (English and Spanish) (pages 10-11)
- Article Test (English and Spanish) (pages 18-19)

### SCIENCE BACKGROUND

Newfoundland and Labrador lie on the edge of North America. Consisting of an island and part of the mainland, it is Canada's most easterly province.

Bordered in large part by the Atlantic Ocean, its land lies within cold tundra and taiga regions. Despite the chill, both on land and in water, many plants and animals live here. Some, like caribou, are native to the region. Others, like moose, are not.

People brought moose to the province in the early 1900s. The moose adapted well. In fact, they have thrived to the point where they could impact the natural balance of the ecosystem. To ensure that doesn't happen, scientists keep a close eye on their growing population.

### ENGAGE

Encourage students to review the article and turn and talk with a partner to discuss what they see. Invite students to ask questions or share what they know about Newfoundland.

### EXPLORE

Display the "**Newfoundland Wildlife**" article with the interactive digital magazine. As a class brainstorm ideas about how animals might interact in an environment like this.

### EXPLAIN

After reading, invite students to share what they learned about Newfoundland wildlife.

**Ask:** *Where is Newfoundland?* (Canada's east coast) *What is it like here?* (Possible response: cold) *Which three Newfoundland environments did the article explore?* (sea, sky, and land). In small groups, have students list the animals mentioned in the article (caribou, sea anemones, capelin, humpback whales, Atlantic cod, Atlantic puffins, northern gannet, moose). Encourage them to identify where each animal lives, how it survives in that environment, and how it interacts with other plants and animals that live there. Rejoin as a class. Discuss how different types of environments in Newfoundland connect to create an overall healthy ecosystem.

### ELABORATE

Remind students that people introduced moose to Newfoundland. Although they have adapted to live here, moose are not a natural part of the environment. As a class, discuss reasons why people introduce non-native species to areas and how these additions could turn a healthy ecosystem into an environment where many species struggle to survive.

### EVALUATE

Have students complete the **Content Assessment** for this lesson. Encourage them to share and compare the results in small groups.



Click here for the Kahoot! quiz:  
<https://play.kahoot.it/#/k/f63b81f4-a46d-4a08-9908-646f3d99fa21>

**CONTENT ASSESSMENT: NEWFOUNDLAND WILDLIFE**

Identify animals that live in each environment. Explain how the environment meets each animal's needs.

	Identify	Explain
Sea		
Sky		
Land		

How do all of the living things in this ecosystem rely on each other?

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How have people changed this ecosystem?

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Why could this be a problem in the future?

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## EVALUACIÓN DE CONTENIDO: LA FAUNA DE TERRANOVA

Identifica los animales que viven en cada entorno. Explica cómo el entorno satisface las necesidades del animal.

	Identifica	Explica
Mar		
Cielo		
Tierra		

¿Cómo dependen unos de otros los seres vivos de este ecosistema?

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¿Cómo ha cambiado la gente este ecosistema?

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¿Por qué podría ese cambio llegar a ser un problema en el futuro?

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# MISHMASH MAMMAL

## SCIENCE

### Standards Supported

- **NGSS LS1.A: Structure and Function:** Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)
- **NGSS Science and Engineering Practices: Engaging in Argument from Evidence:** Support an argument with evidence, data, or a model. (5-LS1-1)

### What You Will Need

- Interactive Digital Magazine
- Content Assessment (English and Spanish) (pages 13-14)
- Article Test (English and Spanish) (pages 20-21)

### SCIENCE BACKGROUND

The platypus is a small Australian mammal known for its unlikely combination of traits. It has the bill of a duck, bones of a lizard, feet of a pelican, tail of a beaver, and coat of an otter. On top of that, males have hollow spikes on their back heels that are filled with venom.

Platypuses are monotremes, egg-laying mammals. Only one other species of monotreme exists, the echidna.

Despite their hodgepodge of body parts, platypuses are adapted to live both on land and in the water. They are graceful swimmers, paddling with their front feet and steering and braking with their back feet. On land, they retract the webbing in their front feet and use their long claws to dig dens where they raise their young.

### ENGAGE

Encourage students to review the article and turn and talk with a partner to discuss what they see. Invite students to ask questions or share what they know about the platypus.

### EXPLORE

Display the "**Mishmash Mammal**" article with the interactive digital magazine. As a class, discuss reasons why "mishmash" is a good word to use when describing a platypus.

### EXPLAIN

After reading, invite students to share what they learned about the platypus. **Ask:** *What kind of animal is a platypus?* (a monotreme, which is an egg-laying mammal) *Why are monotremes unique?* (Only two species remain today, the platypus and the echidna. They have traits of mammals, birds, and reptiles.) *What does a platypus look like?* (It has the bill of a duck, the bones of a lizard, the feet of a pelican, the tail of a beaver, and the coat of an otter.) In small groups, have students describe a platypus's unique parts in more detail. Encourage them to discuss how a platypus uses these parts to survive both on land and in the water.

### ELABORATE

After reading, point out to the class that platypus adaptations have been shaped over millions of years. As odd as the combination of traits may seem, it has helped the animal survive over time. Invite students to identify their favorite platypus traits. Challenge them to explain why these traits were necessary for the platypus to still be around today.

### EVALUATE

Have students complete the **Content Assessment** for this lesson. Encourage them to share and compare the results in small groups.

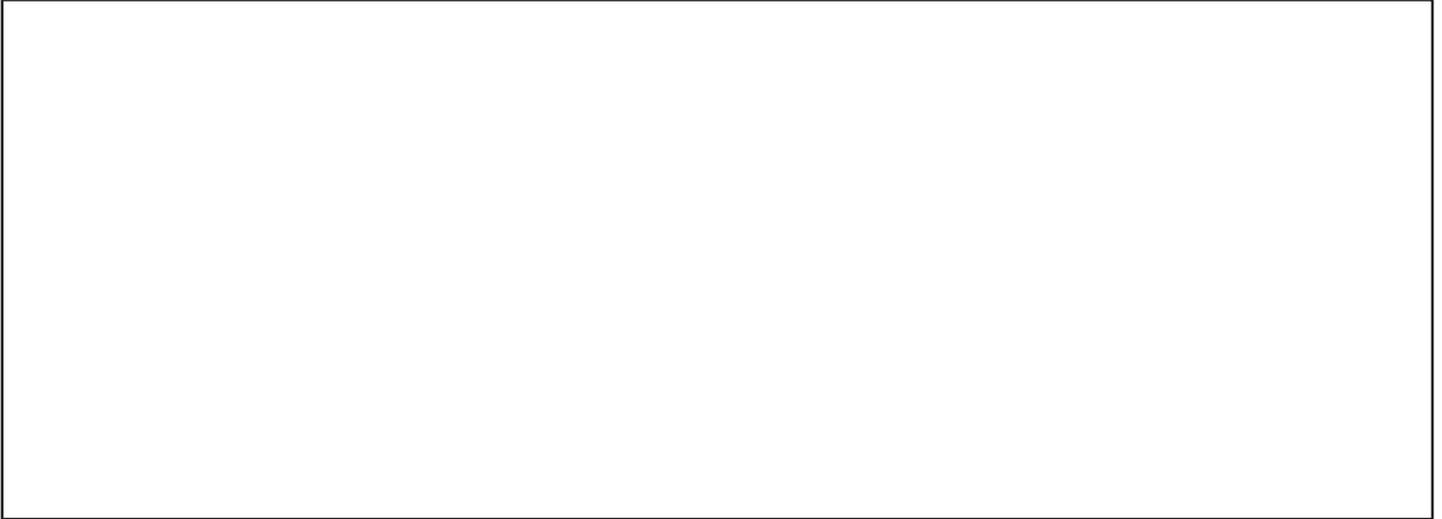


Click here for the Kahoot! quiz:  
<https://play.kahoot.it/#/k/196bbc60-17be-4d0e-bcf6-62b26119108e>



## EVALUACIÓN DE CONTENIDO: UN DISLATE DE MAMÍFERO

Dibuja un ornitorrinco.



Imagina que envías un ornitorrinco a Inglaterra por primera vez en 1799. Usa la información del artículo para argumentar ante los científicos que el ornitorrinco es un animal real y no un bulo.

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# THE WONDER OF THE FALLS

## SCIENCE

### Standards Supported

- **NGSS ESS2.B: Plate Tectonics and Large-Scale System Interactions:** The locations of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. Most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans. Major mountain chains form inside continents or near their edges. Maps can help locate the different land and water features areas of Earth. (4-ESS2-2)
- **NGSS ESS3.C: Human Impacts on Earth Systems:** Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. (5-ESS3-1)

### What You Will Need

- Interactive Digital Magazine
- Content Assessment (English and Spanish) (pages 16-17)
- Article Test (English and Spanish) (pages 22-23)

### SCIENCE BACKGROUND

Iguazú Falls, one of the "New Seven Wonders of the World," is one of the largest waterfall systems in the world. It spans 2.7 kilometers (1.7 miles) along the border of Argentina and Brazil. During the rainy season, it boasts up to 275 separate waterfalls.

The Iguazú River, which feeds the falls, comes from Brazil. But about two-thirds of the waterfalls are on the Argentinean side of the river. The tallest drop is a rocky gorge known as Devil's Throat. Here, water plunges 82 meters (269 feet) into the narrow canyon below.



Click here for the Kahoot! quiz:  
<https://play.kahoot.it/#/k/5f1bbdcd-24b9-4b28-a179-4eb8abcdaafa>

### ENGAGE

Encourage students to review the article and turn and talk with a partner to discuss what they see. Invite students to ask questions or share what they know about waterfalls.

### EXPLORE

Display the "**The Wonder of the Falls**" article with the interactive digital magazine. As a class, share ideas about why Iguazú Falls might have been named one of the "New Seven Wonders of Nature."

### EXPLAIN

After reading, remind students that Iguazú Falls is a system of up to 275 different waterfalls. **Ask:** *How did the Iguazú Falls form?* (Ancient volcanoes covered the land with layers of lava. Tectonic plates moved and lifted the layers into a high plateau. Faults formed in the plateau, water erosion formed two rivers, and the falls formed at the point where the two rivers meet.) **Ask:** *What is the environment like around Iguazú Falls?* (It's a very diverse rainforest.) *What have people done that has changed the flow of water over the falls?* (They built hydroelectric dams, which affect the water level in the rivers.) *Why is it such a challenge to preserve this region?* (The falls are located on the borders of three countries. Each has its own ideas on how to manage the land). As a class, discuss what the countries have agreed to do and why jaguars are a sign that the plan is working.

### ELABORATE

Remind students more than 1.5 million tourists visit Iguazú Falls each year. As a class, compile a list of reasons why this is both good and bad for the area. When the list is complete, have students debate to decide whether or not tourism is a good way to protect natural wonders like Iguazú Falls.

### EVALUATE

Have students complete the **Content Assessment** for this lesson. Encourage them to share and compare the results in small groups.

**CONTENT ASSESSMENT: THE WONDER OF THE FALLS**

Describe how Iguazú Falls formed. Explain how people have changed the area around the falls.

Describe	Explain

Write a "T" for each statement that is true and an "F" for each one that is false.

- \_\_\_\_\_ Iguazú Falls is one big waterfall.
- \_\_\_\_\_ Iguazú Falls formed 10,000 years ago.
- \_\_\_\_\_ Iguazú Falls is a very diverse ecosystem.
- \_\_\_\_\_ People have both harmed and helped the Iguazú Falls ecosystem.

Do you think Iguazú Falls should be protected? Why or why not?

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## EVALUACIÓN DE CONTENIDO: LA MARAVILLA DE IGUAZÚ

Describe cómo se formaron las Cataratas de Iguazú. Explica cómo la gente ha cambiado la región de las cataratas.

Describe	Explica

Escribe una "V" en los enunciados verdaderos y una "F" en los falsos.

- \_\_\_\_\_ Las Cataratas de Iguazú son enormes cascadas.
- \_\_\_\_\_ Las Cataratas de Iguazú se formaron hace 10,000 años.
- \_\_\_\_\_ Las Cataratas de Iguazú forman parte de un complejo ecosistema.
- \_\_\_\_\_ La gente ha dañado el ecosistema de las Cataratas de Iguazú, pero también ha ayudado a conservarlo.

¿Crees que las Cataratas de Iguazú deben ser protegidas?

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**ARTICLE TEST: NEWFOUNDLAND WILDLIFE**

Read each question. Fill in the circle next to the correct answer and then write your response on the lines.

- 1. Which of these Newfoundland animals is an invertebrate?**
  - Ⓐ humpback whale
  - Ⓑ sea anemone
  - Ⓒ caribou
  
- 2. Which of these animals lives in the sea?**
  - Ⓐ Atlantic cod
  - Ⓑ Atlantic puffins
  - Ⓒ moose
  
- 3. What do humpback whales and Atlantic cod have in common?**
  - Ⓐ Both munch on native plants.
  - Ⓑ Both eat capelin.
  - Ⓒ Both jump onto rocky beaches to lay eggs.
  
- 4. Why could moose be a problem for Newfoundland in the future?**
  - Ⓐ They are a native species.
  - Ⓑ They are an extinct species.
  - Ⓒ They are an introduced species.

**5. How do all the living things in an ecosystem rely on each other?**

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## PRUEBA DEL ARTÍCULO: LA FAUNA DE TERRANOVA

Lee cada pregunta. Llena el círculo de cada opción correcta y responde a la última pregunta en los espacios en blanco.

1. **¿Cuál de estos animales de Terranova es un invertebrado?**
  - Ⓐ ballena jorobada
  - Ⓑ anémona marina
  - Ⓒ caribú
  
2. **¿Cuál de estos animales vive bajo el mar?**
  - Ⓐ bacalao atlántico
  - Ⓑ frailecillo atlántico
  - Ⓒ alce
  
3. **¿Qué tienen en común las ballenas jorobadas y los bacalao atlánticos?**
  - Ⓐ Ambos se alimentan de plantas autóctonas.
  - Ⓑ Ambos se alimentan de capelanes.
  - Ⓒ Ambos saltan hasta las playas rocosas para poner sus huevos.
  
4. **¿Por qué los alces podrían llegar a ser un problema para Terranova?**
  - Ⓐ Son una especie autóctona.
  - Ⓑ Son una especie extinguida.
  - Ⓒ Son una especie introducida.

5. **¿Cómo dependen entre sí los seres vivos de los ecosistemas?**

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## ARTICLE TEST: MISHMASH MAMMAL

Read each question. Fill in the circle next to the correct answer and then write your response on the lines.

1. What kind of animal is a platypus?

- Ⓐ reptile
- Ⓑ bird
- Ⓒ mammal

2. Which part of a platypus is like a duck?

- Ⓐ tail
- Ⓑ bones
- Ⓒ bill

3. Which part is like a lizard?

- Ⓐ tail
- Ⓑ bones
- Ⓒ bill

4. What does a platypus use its tail to do?

- Ⓐ store fat
- Ⓑ communicate
- Ⓒ paddle

5. Pick one platypus adaptation. Describe what it looks like and how it works.

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## PRUEBA DEL ARTÍCULO: UN DISLATE DE MAMÍFERO

Lee cada pregunta. Llena el círculo de cada opción correcta y responde a la última pregunta en los espacios en blanco.

1. ¿Qué tipo de animal es el ornitorrinco?

- Ⓐ un reptil
- Ⓑ un ave
- Ⓒ un mamífero

2. ¿Qué parte del ornitorrinco le hace parecerse a un pato?

- Ⓐ la cola
- Ⓑ los huesos
- Ⓒ el pico

3. ¿Y qué parte es similar a la de un lagarto?

- Ⓐ la cola
- Ⓑ los huesos
- Ⓒ el pico

4. ¿Para qué le sirve la cola al ornitorrinco?

- Ⓐ para almacenar grasa
- Ⓑ para comunicarse
- Ⓒ para remar

5. Elige una de las formas de adaptación del ornitorrinco. Describe a qué se parece y cómo funciona.

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## ARTICLE TEST: THE WONDER OF THE FALLS

Read each question. Fill in the circle next to the correct answer and then write your response on the lines.

1. **Where is Iguazú Falls?**

- Ⓐ South America
- Ⓑ North America
- Ⓒ Australia

2. **What is the environment like around it?**

- Ⓐ desert
- Ⓑ rainforest
- Ⓒ polar

3. **Why are the falls so tall?**

- Ⓐ The serpent god M'Boi raised them.
- Ⓑ Earth's plates moved and lifted them.
- Ⓒ They were formed by coatis.

4. **What did people do that affected the water level in the rivers?**

- Ⓐ They built hydroelectric dams.
- Ⓑ They drank too much water.
- Ⓒ They caused erosion so the falls are farther upstream.

5. **What are people doing to preserve the Iguazú Falls area? Why is it a challenge?**

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## PRUEBA DEL ARTÍCULO: LA MARAVILLA DE IGUAZÚ

Lee cada pregunta. Llena el círculo de cada opción correcta y responde a la última pregunta en los espacios en blanco.

- ¿Dónde están las Cataratas de Iguazú?**
  - Ⓐ en Suramérica
  - Ⓑ en Norteamérica
  - Ⓒ en Australia
  
- ¿En qué tipo de ecosistema están las Cataratas de Iguazú?**
  - Ⓐ desértico
  - Ⓑ selvático lluvioso
  - Ⓒ ártico
  
- ¿Por qué son tan altas las cascadas?**
  - Ⓐ El dios serpiente Mboi las elevó.
  - Ⓑ Las placas de la Tierra se movieron y las levantaron.
  - Ⓒ Fueron hechas por los coatíes.
  
- ¿Cómo ha cambiado la gente el nivel del agua de los ríos?**
  - Ⓐ Construyeron represas hidroeléctricas.
  - Ⓑ Bebieron demasiada agua.
  - Ⓒ Provocaron una erosión que llevó las cataratas río arriba.

**5. ¿Qué están haciendo las personas para proteger las Cataratas de Iguazú?  
¿Por qué es difícil protegerlas?**

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# PATHFINDER AND ADVENTURER

## ANSWER KEY

### NEWFOUNDLAND WILDLIFE

**Content: pages 10-11**

**Sea:** sea anemones/rocks to hold onto, prey to grab; capelin/rocky beaches to lay eggs on; humpback whales and Atlantic cod/capelin to eat

**Sky:** puffins and northern gannets/fish to eat and safe places to lay eggs and raise their young

**Land:** moose/grasses and other plants to eat

**Question 1:** The birds in the sky can eat the fish in the ocean. The land animals have plants and other animals to eat.

**Question 2:** They introduced moose to the environment.

**Question 3:** The moose eat native plants. This changes the plant ecosystem, which could impact this web of life in the future.

**Article Test: page 18-19**

1. B; 2. A; 3. B; 4. C; 5. Possible response: For the birds in the sky to thrive, they need the fish in the ocean. For the land animals to prosper, they need plants and other animals to eat.

### MISHMASH MAMMAL

**Content: page 13-14**

Students should draw a picture of a platypus. They should cite details from the article to describe the structure and function of each body part. They should incorporate that information into an argument that proves the platypus is a real animal.

**Article Test: page 20-21**

1. C; 2. C; 3. B; 4. A; 5. Answers will vary but should be supported with information from the article.

### THE WONDER OF THE FALLS

**Content: page 16-17**

**Describe:** The supercontinent, Gondwana, broke apart about 130 million years ago. Lava poured from volcanoes, covering the land. It cooled, hardened, and built up layers of basalt rock. Earth's tectonic plates kept moving and lifted the layers into a high plateau. Faults appeared in the plateau. Water ran down the faults, forming two rivers. The falls formed where the two rivers meet.

**Explain:** Poachers illegally take trees and animals. Loggers cut and clear trees. People built hydroelectric dams on the rivers. Facilities have also been built for the more than 1.5 million tourists who visit the falls each year.

**Part 2:** F, F, T, T

**Part 3:** Answers may vary. Students should use information from the article to support their responses.

**Article Test: page 22-23**

1. A; 2. B; 3. B; 4. A; 5. Possible response: People have developed a plan on how to manage the land. This includes more patrols, species monitoring, education, and research. It is a challenge because the falls are on the borders of three countries. Each country has its own ideas on how to manage the land.

# PATHFINDER Y ADVENTURER

## CLAVE DE RESPUESTAS

### LA FAUNA DE TERRANOVA

**Contenido:** páginas 10 y 11

**Mar:** anémonas marinas/rocas para aferrarse, presas para atrapar; capelanes/playas rocosas para poner huevos; ballenas jorobadas, bacalaos atlánticos/capelanes para comer

**Cielo:** frailecillos y alcatraces atlánticos/peces para alimentarse y lugares de desove y cría de sus polluelos

**Tierra:** alces/ hierbas y otras plantas para comer

**Pregunta 1:** Las aves del cielo comen peces del océano.

Los animales terrestres comen plantas y otros animales.

**Pregunta 2:** Los alces fueron introducidos en el ecosistema.

**Pregunta 3:** Los alces comen plantas autóctonas. Esto cambia el ecosistema vegetal y podría acabar afectando la red alimentaria.

**Prueba del artículo:** páginas 18 y 19

1. B; 2. A; 3. B; 4. C; 5. Respuestas posibles: Para que las aves del cielo prosperen, necesitan los peces del océano. Para que los animales terrestres prosperen, necesitan plantas y otros animales para comer.

### UN DISLATE DE MAMÍFERO

**Contenido:** páginas 13 y 14

Los estudiantes deben dibujar un ornitorrinco. Deben citar detalles del artículo que describan la estructura y las funciones de cada parte del cuerpo. Deberán aplicar esa información a su argumentación para documentar por qué el ornitorrinco es un animal real.

**Prueba del artículo:** páginas 20 y 21

1. C; 2. C; 3. B; 4. A; 5. Las respuestas variarán pero deben apoyarse en la información del artículo.

### LA MARAVILLA DE IGUAZÚ

**Contenido:** páginas 16 y 17

**Describe:** El supercontinente Gondwana se desgajó hace 130 millones de años. La lava de los volcanes cubrió la tierra. La lava se enfrió, se endureció y formó capas de roca basáltica. Las placas tectónicas de la Tierra se desplazaron y elevaron las capas formando una meseta. Aparecieron fallas en la meseta. El agua empezó a fluir por esas fallas y formó dos ríos. Las cataratas se formaron en la confluencia de dos ríos.

**Explica:** Los madereros y cazadores furtivos roban árboles y animales. Los madereros talan bosques. Se construyen represas hidroeléctricas en los ríos. También se han construido otras instalaciones para los más de 1.5 millones de turistas que visitan las cataratas cada año.

**Parte 2:** F, F, V, V

**Parte 3:** Las respuestas pueden variar.

Los estudiantes deberán usar la información del artículo para apoyar sus respuestas.

**Prueba del artículo:** páginas 22 y 23

1. A; 2. B; 3. B; 4. A; 5. Respuestas posibles: Se ha desarrollado un plan para gestionar la región. Este plan incluye el aumento de las patrullas de vigilancia, la monitorización de las especies, la educación y la investigación. Es difícil porque las Cataratas de Iguazú se encuentran en la frontera entre tres países. Cada país tiene sus propias ideas sobre cómo gestionar la región.