

TEACHER'S GUIDE PIONEER AND TRAILBLAZER | VOL. 20 NO. 4

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LEXILE® FRAMEWORK LEVELS

PIONEER

Newfoundland Wildlife	540L
Mishmash Mammal	550L
The Wonder of the Falls	500L

TRAILBLAZER

Newfoundland Wildlife	600L
Mishmash Mammal	620L
The Wonder of the Falls	590L



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** 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.



Second Grade Standard Supported

• **CCSS Reading Informational Text:** Identify the main purpose of a text, including what the author wants to answer, explain, or describe. (2-6)

Third Grade Standard Supported

• **CCSS Reading Informational Text:** Determine the main idea of a text; recount the key details and explain how they support the main idea. (3-2)

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

What You Will Need

- "Newfoundland Wildlife"
- (*Explorer*) • Think Sheet
- (Teacher's Guide, pages 4–5)
- Pencils

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 stay away from people, so it's pretty cool that she was able to get these photos of a caribou herd grazing.

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. I'm guessing we'll hear about some of the other animals on the island. 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 and grab passing prey.

• 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	
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HOJA DE PENSAR

Escribe tus ideas en cada columna.

IMÁGENES (FOTOS, MAPAS, DIAGRAMAS)	ΤΕΧΤΟ	CÓMO ME AYUDAN A COMPRENDER
		1



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.

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.

What You Will Need

- Nonfiction text
 • Think Sheet template
- Pencils

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 LS4.D: Biodiversity and Humans: There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)
- NGSS LS4.D: Biodiversity and Humans: Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)

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 the types of animals that might live 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). As a class, list the animals mentioned in the article (caribou, sea anemones, capelin, humpback whales, Atlantic cod (TRAILBLAZER only), Atlantic puffins, northern gannet (TRAILBLAZER only), moose). Encourage students to share what they learned about each animal. Challenge them to summarize how the animals rely on each other to create a healthy ecosystem.

ELABORATE

Remind students that people introduced moose to Newfoundland. Although moose have adapted to live here, they are not a natural part of the environment. As a class, identify reasons why people introduce new species to areas. Challenge students to explain how these new additions could make it more difficult for native species to survive.

EVALUATE

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

CONTENT ASSESSMENT: NEWFOUNDLAND WILDLIFE

Identify one animal that lives in each Newfoundland environment. Tell why the environment is a good place for the animal to live.

Land	als that live there now?	
Sky	to these environments affect anima	
Sea	How could introducing new species	

PAGE 10

EVALUACIÓN DE CONTENIDO: LA FAUNA DE TERRANOVA

ldentifica un animal que viva en cada entorno de Terranova. Explica por qué ese entorno es el mejor para dicho animal.

Tierra	e una nueva especie?	
Cielo	estos ecosistemas la introducción de	
Mar	¿Cómo afectaría a los animales de e	

=

MISHMASH MAMMAL

SCIENCE



Standards Supported

- NGSS LS4.D: Biodiversity and Humans: There are many different kind of living things in any area, and they exist in different places on land and in water. (2-LS4-1)
- NGSS LS4.C: Adaptation: For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3)

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) What is that? (a mammal that lays eggs) 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 the platypus may be strange, but it survived when most other monotremes did not. Invite students to identify their favorite platypus traits. Challenge them to explain how those traits could have helped the platypus survive over time.

EVALUATE

Have students complete the **Content**

Assessment for this lesson. Encourage them to share and compare the results in small groups.

CONTENT ASSESSMENT: MISHMASH MAMMAL

Draw a picture of a platypus. Then answer the questions.

What do you think is a platypus's strangest body part? Why?

What do you think is a platypus's strangest behavior? Why?

Why do you think the platypus survived when most other monotremes did not?

EVALUACIÓN DE CONTENIDO: UN MAMÍFERO DISPARATADO

Dibuja un ornitorrinco. Luego responde a las preguntas.

¿Cuál crees que es la parte más rara del cuerpo del ornitorrinco? ¿Por qué?

¿Cuál crees que es el comportamiento más raro del ornitorrinco? ¿Por qué?

¿Por qué crees que el ornitorrinco ha sido el único monotrema que ha logrado sobrevivir?

THE WONDER OF THE FALLS





Standards Supported

• NGSS ESS1.C: The History of Planet Earth:

Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS2-1)

• NGSS Crosscutting Concepts: Patterns: Patterns of change can be used to make predictions. (3-ESS2-1), (3-ESS2-2)

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.

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? (Long ago, the land here broke apart. Lava erupted from volcanoes and built up a plateau of rock. The rocks cooled, cracks appeared, and water eroded the land. Two riverbeds formed. The falls formed where the two rivers meet.) Ask: Why are the falls farther upstream than they used to be? (Water continues to weather away rock at the bottom. As the top layers crumble, the falls move farther back.) What did people do that affects how water flows over the falls? (They built hydroelectric dams.) Why is this a problem? (It changes the water level in the rivers. This affects the waterfalls as well as all of the people, plants, and animals that live here). As a class, discuss what people are doing to protect the Iguazú region and why this is important.

ELABORATE

Remind students that waterfalls are only part of the beauty in the Iguazú Falls region. As a class, identify some of the other natural features found in this area. Discuss reasons why it is important to protect the entire region.

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

Summarize how the Iguazú Falls formed. Then answer the questions.

First,	
Next,	
Then	
Finally,	ute to their students.
Why did it take so long for the Iguazú Falls to form?	opy this page to distribu
	served. Teachers may co
How do you think the falls will change in the future? Why?	aphic Society. All rights res
	2021 National Geogra

EVALUACIÓN DE CONTENIDO: LA MARAVILLA DE IGUAZÚ

Resume cómo se formaron las Cataratas de Iguazú. Luego responde a las preguntas.

Primero,
Luego,
Más adelante,
Por último,
¿Por qué tardaron tanto en formarse las Cataratas de Iguazú?
¿Cómo crees que cambiarán las cataratas en un futuro muy lejano? ¿Por qué?

õ

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. Where is Newfoundland?
 - (A) the United States
 - ® Canada
 - © Australia
- 2. When can you find humpback whales in Newfoundland's sea?
 - (A) summer
 - ® winter
 - © fall
- 3. Which of these animals flies in Newfoundland's skies?
 - (A) caribou
 - ® sea anemones
 - © puffins
- 4. Which animal did people bring to Newfoundland?
 - (A) seabirds
 - ® capelin
 - © moose

5. Why do all the living things in an ecosystem need each other?

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. ¿Dónde está Terranova?
 - (A) en EEUU
 - ® en Canadá
 - © en Australia
- 2. ¿Cuándo se ven las ballenas jorobadas desde las costas de Terranova?
 - (A) en verano
 - ® en invierno
 - © en otoño
- 3. ¿Cuál de estos animales vuela por los cielos de Terranova?
 - el caribú
 - B las anémonas
 - © el frailecillo

4. ¿Qué animal fue introducido por los humanos en Terranova?

- (A) aves marinas
- B capelanes
- © alces

5. ¿Por qué dependen los seres vivos de un ecosistema los unos de los otros?

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?
 - (A) reptile
 - $\ensuremath{\mathbb{B}}\xspace$ amphibian
 - © mammal

2. Where are they found?

- (Asia)
- B Africa
- © Australia

3. Which part of their body looks like a bird?

- (A) bill
- bones
- © tail

4. Where does a platypus store body fat?

- (A) feet
- ® tail
- © bones

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

PRUEBA DEL ARTÍCULO: UN MAMÍFERO DISPARATADO

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

- 1. ¿Qué clase de animal es un ornitorrinco?
 - (A) un reptil
 - ® un anfibio
 - © un mamífero
- 2. ¿Dónde pueden encontrarse?
 - (A) en Asia
 - B en África
 - © en Australia

3. ¿Qué parte del cuerpo del ornitorrinco recuerda a un ave?

- (A) su pico
- ® sus huesos
- © su cola

4. ¿Dónde almacena la grasa el ornitorrinco?

- (A) en las patas
- ® en la cola
- © en los huesos

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

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
- **B** North America
- © Australia

2. What does the word "Iguazú" mean?

- (A) big desert
- B great water
- © mighty rainforest

3. What caused the falls to form?

- (A) the serpent god M'Boi
- ® eruption and erosion
- © coatis

4. What caused the falls to move far down the river?

- (A) weathering
- ® hydroelectric dams
- © a plateau of rock

5. What is one reason why people are the Iguazú Falls biggest problem?

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.

- 1. ¿Dónde están las Cataratas de Iguazú?

 - B en Norteamérica
 - © en Australia

2. ¿Qué significa "Iguazú"?

- ® agua grande
- © poderosa selva

3. ¿Qué causó las cataratas?

- (A) el dios serpiente Mboi
- ® la erupción y la erosión
- © los coatíes

4. ¿Qué provocó que las cataratas se desplazaran aguas arriba?

- ® las represas hidroeléctricas
- © una meseta de roca

5. ¿Por qué son las personas la mayor amenaza para las Cataratas de Iguazú? Da una razón.

PIONEER AND TRAILBLAZER



ANSWER KEY

NEWFOUNDLAND WILDLIFE

Content: pages 10-11

Sea: Possible responses include: sea anemones/ rocks to hold onto so they can grab prey; capelin/rocky beaches to lay eggs on; humpback whales and Atlantic cod (TRAILBLAZER only)/food to eat

Sky: puffins northern gannets (Trailblazer only)/ fish to eat and safe places live. (Students reading TRAILBLAZER may also mention that the birds have a safe place to lay eggs and raise their young.) **Land:** caribou and moose/grasses and other plants to eat

Question: Possible response: New species might eat all of the food, just like moose are eating too many native plants now.

Article Test: page 18-19

1. B; 2. A; 3. C; 4. C; 5. Possible response: The birds in the sky need the fish in the ocean to survive. Land animals need plants and other animals to eat.

MISHMASH MAMMAL

Content: page 13-14

Students should draw a picture of a platypus. Questions 1 and 2: Students should identify one body part and one behavior and use information from the article to explain why it is strange. Question 3: Possible response: The platypus might be strange, but it adapted to survive where it lives.

Article Test: page 20-21

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

THE WONDER OF THE FALLS

Content: page 16-17

First, the land here broke apart long ago. (Students reading the TRAILBLAZER edition should mention the supercontinent Gondwana.) **Next,** lava poured from volcanoes and covered the land. It built up into a plateau.

Then, the rock cooled and cracks appeared. Water ran down the cracks and eroded the land. **Finally,** two riverbeds formed and the falls formed at the place where the two rivers meet. Water still weathers the rock at the bottom, so the falls look like a giant staircase today.

Question 1: Possible response: It takes millions of years for Earth to change like this.

Question 2: Possible response: Water will continue to erode the land, making the falls even bigger.

Article Test: page 22-23

1. A; 2. B; 3. B; 4. A; 5. Possible responses include: Poachers take trees and animals illegally. People accidentally injure or kill animals as they drive through the parks. Loggers clear land for farms. This makes plants and animals lose their homes. People also built dams that affect the water level in the rivers.

PIONEER AND TRAILBLAZER



CLAVE DE RESPUESTAS

LA FAUNA DE TERRANOVA

Contenido: páginas 10 y 11

Mar: Respuestas posibles: anémonas marinas/ rocas a las que aferrarse para atrapar presas; capelanes/playas rocosas para poner huevos; ballenas jorobadas y bacalaos atlánticos (solo en Trailblazer) /alimento

Cielo: frailecillos y alcatraces atlánticos (sólo en Trailblazer) /lugar seguro donde comer y vivir. (Los estudiantes que lean Trailblazer pueden también mencionar que las aves disponen de un lugar seguro donde poner sus huevos y criar a sus polluelos.)

Tierra: caribúes y alces/hierba y otras plantas **Pregunta:** Respuesta posible:

Las nuevas especies podrían acabar con toda la comida, del mismo modo en que los alces están hoy acabando con muchas plantas autóctonas.

Prueba del artículo: páginas 18 y 19

1. B; 2. A; 3. C; 4. C; 5. Respuesta posible: Las aves del cielo necesitan a los peces del océano para sobrevivir. Los animales terrestres necesitan plantas y otros animales para alimentarse.

UN MAMÍFERO DISPARATADO

Contenido: páginas 13 y 14

Los estudiantes deberán dibujar un ornitorrinco. **Preguntas 1 y 2:** Los estudiantes deberán identificar una parte del cuerpo y un comportamiento del ornitorrinco, y usar la información del artículo para explicar por qué ambos son raros.

Pregunta 3: Respuesta posible: El ornitorrinco puede resultar extraño, pero se ha adaptado a su entorno.

Prueba del artículo: páginas 20 y 21

1. C; 2. C; 3. A; 4. B; 5. La respuestas variarán pero deberán estar apoyadas en la información del artículo.

LA MARAVILLA DE IGUAZÚ

Contenido: páginas 16 y 17

Primero, la tierra se separó en este lugar hace muchos años. (Los estudiantes que lean la edición de Trailblazer deberán mencionar el supercontinente Gondwana).

Luego, la lava de los volcanes cubrió la tierra. Y se formó una meseta.

Más adelante, las rocas se enfriaron y aparecieron grietas. El agua corrió por esas grietas erosionando la tierra.

Por último, se formaron las cuencas de dos ríos. Las cataratas se formaron allí donde un río se encontró con el otro. Al golpear el fondo rocoso, el agua lo fue meteorizando y formó una escalera gigante.

Pregunta 1: Posible respuesta: Se tardan millones de años en que se produzca un cambio como este en la Tierra.

Pregunta 2: Posible respuesta: El agua seguirá erosionando la Tierra, formando cataratas incluso más grandes.

Prueba del artículo: páginas 22 y 23

1. A; 2. B; 3. B; 4. A; 5. Respuestas posibles: Los furtivos se llevan ilegalmente árboles y animales del parque. La gente atropella animales sin querer al conducir por los parques. Se cortan árboles para cultivar la tierra. Las plantas y los animales se quedan sin hogar. La gente construye represas que cambian el nivel del agua en los ríos.