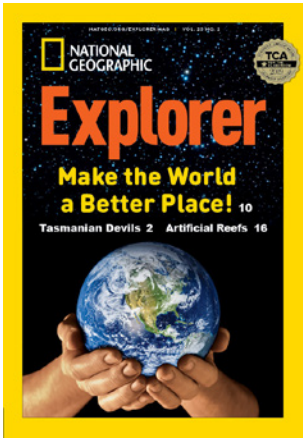
TEACHER'S GUIDE

PATHFINDER AND ADVENTURER | VOL. 20 NO. 2

IN THIS GUIDE:



LEXILE® FRAMEWORK LEVELS

PATHFINDER

What the Devil! 660L

Make the World a Better Place! 630L

Artificial Reefs 790L

ADVENTURER

What the Devil! 790L

Make the World a Better Place! 850L

Artificial Reefs 940L

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.

NATIONAL GEOGRAPHIC

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 (A)

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 (S)

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 (K)

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.

NATIONAL GEOGRAPHIC Explorer

Fourth Grade Standard Supported

- **CCSS Reading Informational Text:** Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. (4–1)

Fifth Grade Standard Supported

- **CCSS Reading Informational Text:** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (5–1)

What You Will Need

- "Make the World a Better Place" article
- Think Sheet (Teacher's Guide, pages 5–6)
- Pencils

CONNECT & ENGAGE (5 minutes)

Display the first page of the article "Make the World a Better Place!" in the digital magazine.

Say: Today we are going to read an interesting article about making the world a better place. Let's flip through the article and notice the photos, headings, formats, and any other features that grab your attention. Take some time to turn and talk about what you are noticing.

Kids turn and talk.

Say: Let's also look at the title and the information on this page. Can you turn that title into a question that can guide our reading? What do you think that question would be?

Kids should come up with some form of the question "How can we make the world a better place?"

Say: As we read on, let's keep that question in mind.

MODEL (10 minutes)

Say: When we read nonfiction, it's often good to take notes about what we are reading. Taking notes helps us remember the information we are learning. We can also jot down questions that we still wonder about, as well as any answers to those questions that we find as we continue reading.

Say: For this article, we are going to use a three-column chart to take our notes. This chart is called FQR, which stands for Facts/Questions/Responses. I'll show you how we can use this chart to take notes as we read, learn, and wonder.

Say: First off, I'm going to remind myself of that question we came up with when we read the title. It was "How can we make the world a better place?"

Say: I'm going to keep that in mind as I read this next part to see if there are any facts that could answer that question.

Read aloud "Think Globally" in the article.

Say: Now, I have some new information I can write in the Facts column that also answers the question "How can we make the world a better place?" I'm going to write "To make the world a better place, it's important to know about places in the world." And I get some good tips on what to do, too. I can find out where that place is in the world, what places are near it, what life is like there, what languages are spoken there, and so on.

Say: My next step is to jot down any questions I have that might be answered later or that I can research later myself. One question I have is "What are some different ways to find out about what life is like in different places?" I know some information is easy to find, but other information might not be.

Say: The third column of the chart is for responses. This is one of my favorite things to do when taking notes. Responses are any thoughts, connections, reactions, or inferences we have about what we read. While reading this, I thought about my friends from different places around the world. I thought about how interesting it was to hear about where they lived and how it made me want to visit those places. That's what I am going to write in the Responses column of the chart.

Say: It's your turn. Turn and talk with a partner about what your responses were to this section of the text. What thoughts, connections, or reactions did you have?

Kids turn and talk.

GUIDE (10 minutes)

Make sure kids have access to their own Think Sheets.

Say: Let's try this together with this next section of text. I'll read aloud, and then we can talk about it and jot down our thinking on the FQR chart.

Read aloud "Listen" in the article.

Say: Okay! What facts did you find?

Kids share out. Kids should share that every person has a story that when shared tells us who they are.

Say: Now, what questions do you wonder about and what responses do you have? Turn and talk about that. Then we can share out and write them on the FQR chart.

Kids turn and talk. They might have questions about how to be a good listener. Their responses might be about some of their own experiences with being a good listener. They might also connect to a time when someone was a good listener to them. Allow time for kids to share out and write on their FQR chart.

Say: We are clearly adding information to answer our original question, aren't we? What's another answer to "How can we make the world a better place?"

Kids should answer that being a good listener makes the world a better place.

COLLABORATE (25 minutes)

Say: Let's look at this next part. What is the heading?

The heading is "Here Are Five Ways to Boost Your Listening Skills."

Say: That's interesting, because many of you had a question in your FQR chart about how to be a good listener. It seems we might get some answers to that question in this section of text. Now it's your turn to continue reading with a partner. Read this section of text, turn and talk, and then write the facts, your questions, and your responses on the FQR chart. Continue this way until you get to the end of the article.

Allow time for kids to read, turn and talk, and write. Confer with partners to see if they have any questions as they read, talk, and write. When all partner groups have finished the article, bring the class together again.

Say: Wow! That was a lot of new information to learn and wonder about. Now that we've finished the article, let's return to our original question "How can we make the world a better place?" Let's list the answers we found.

- *Know about places in the world.*
- *Be a good listener.*
- *Be a critical thinker.*
- *Join a team.*
- *Speak up when you see injustice.*
- *Let yourself wonder and ask questions until you find the answers.*
- *Don't say one thing and do another.*

Say: *I'm so impressed with the way you put all of this together, from finding facts and considering new questions around those facts to talking and writing about your responses. Nice work, class!*

SHARE THE LEARNING (10 minutes)

Say: Let's get together and talk about what we learned. I learned that there are many ways we can make the world a better place. Who else would like to share something they learned? Look at your Think Sheets to find facts, questions, or responses you had that you would like to share.

Allow time for kids to share their learning.

Say: Remember that as we read nonfiction, we can take notes about the facts we learned, the questions we still wonder about, and our responses to what we are reading, learning, and wondering about.

Name _____ Date _____

THINK SHEET

Use the chart to write facts, questions, and responses.

FACTS	QUESTIONS	RESPONSES

Nombre _____ Fecha _____

HOJA DE PENSAR

Utiliza la tabla para escribir hechos, preguntas y respuestas.

HECHOS	PREGUNTAS	RESPUESTAS

NATIONAL GEOGRAPHIC Explorer

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 of the article "_____."

Say: Today we are going to read an interesting article about _____. Let's flip through the article and notice the photos, headings, formats, and any other features that grab your attention. Take some time to turn and talk about what you are noticing.

Kids turn and talk.

Say: Let's also look at the title and the information on this page. Can you think of a question that can guide our reading? What do you think that question would be?

Kids should come up with a question.

Say: As we read on, let's keep that question in mind.

MODEL (10 minutes)

Say: When we read nonfiction, it's often good to take notes about what we are reading. Taking notes helps us remember the information we are learning. We can also jot down questions that we still wonder about, as well as any answers to those questions that we find as we continue reading.

Say: For this article, we are going to use a three-column chart to take our notes. This chart is called FQR, which stands for Facts/Questions/Responses. I'll show you how we can use this chart to take notes as we read, learn, and wonder.

Say: First off, I'm going to remind myself of that question we came up with. It was "_____?" I'm going to keep that in mind as I read this next part to see if there are any facts that could answer that question.

Read aloud the section you are focusing on.

Say: Now, I have some new information I can write in the Facts column that also answers the question "_____?" I'm going to write "_____."

Say: My next step is to jot down any questions I have that might be answered later or that I can research later myself. One question I have is "_____?" I know some information is easy to find, but other information might not be.

Say: The third column of the chart is for responses. This is one of my favorite things to do when taking notes. Responses are any thoughts, connections, reactions, or inferences we have about what we read. While reading this, I thought about _____. That's what I am going to write in the Responses column of the chart.

Say: It's your turn. Turn and talk with a partner about what your responses were to this section of the text. What thoughts, connections, or reactions did you have?

Kids turn and talk

GUIDE (10 minutes)

Make sure kids have access to their own Think Sheets.

Say: Let's try this together with this next section of text. I'll read aloud, and then we can talk about it and jot down our thinking on the FQR chart.

Read the text aloud.

Say: Okay! What facts did you find?

Kids share out.

Say: Now, what questions do you wonder about and what responses do you have? Turn and talk about that, and then we can share out and write them on the FQR chart.

Kids turn and talk. Allow time for kids to share out and write on their FQR chart.

COLLABORATE (25 Minutes)

Say: Now it's your turn to continue reading with a partner. Read the text, turn and talk, and then write the facts, your questions, and your responses on the FQR chart. Continue this way until you get to the end of the article.

Allow time for kids to read, turn and talk, and write. Confer with partners to see if they have any questions as they read, talk, and write. When all partner groups have finished the article, bring the class together again.

Say: Wow! That was a lot of new information to learn and wonder about. I'm so impressed with the way you put all of this together, from finding facts and considering new questions around those facts to talking and writing about your responses. Nice work, class!

SHARE THE LEARNING (10 minutes)

Say: Let's get together and talk about what we learned. I learned _____. Who else would like to share something they learned? Look at your Think Sheets to find facts, questions, or responses you had that you would like to share.

Allow time for kids to share their learning.

Say: Remember that as we read nonfiction, we can take notes about the facts we learned, the questions we still wonder about, and our responses to what we are reading, learning, and wondering about.

WHAT THE DEVIL!

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 Connections to Nature of Science: Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena:** Science explanations describe the mechanisms for natural events. (5-LS2-1)

What You Will Need

- Interactive Digital Magazine
- Content Assessment Master (pages 10–11)
- Article Test (pages 18–19)

SCIENCE BACKGROUND

Tasmanian devils are carnivorous scavengers only found on the island of Tasmania. Famous for their feisty temperaments, they will fly into a rage when threatened by a predator, fighting for a mate, or fighting for a meal.

Tasmanian devils nearly became extinct in the late 1800s, when people considered them to be livestock-killing pests. They were saved after the government made them a protected species in 1941. But, their numbers plummeted once again in the mid-1990s after a rare form of contagious cancer began to spread through their populations. The disease, which caused large masses to form around their mouths and head, made it hard for them to eat. Many Tasmanian devils starved to death.

In 2003, the Tasmanian state government began a program to save the devils. Some devils seem to be adapting to recover on their own, and scientists are still attempting to create a vaccine.

Click here for the Kahoot! quiz: https://play.kahoot.it/#/k/65e2de48-6c3c-4041-8aa1-dc889891b10d

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 already know about Tasmanian devils.

EXPLORE

Display the **"What the Devil!" article** with the interactive digital magazine. As a class, brainstorm ideas about what kind of mysterious disease could affect Tasmanian devils and how the animals could fight back.

EXPLAIN

After reading, remind students that Tasmanian devils are a type of marsupial. **Ask:** *What is a marsupial?* (a mammal whose young finish developing in a pouch on their mother's abdomen). Have students turn and talk as they discuss how the Tasmanian devil's body parts help it survive. (These details can be found in the **"All About Tasmanian Devil's" sidebar**.) **Ask:** *How did the devil's bite help spread a cancer that nearly caused the species to become extinct?* (Devil's bite each other when they fight for food. They transfer the cancer to each other through their bites.) In small groups, have students discuss why this particular cancer had such a deadly effect on the devils. Encourage them to discuss how people helped save the devils and why scientists are optimistic about the devils' future.

ELABORATE

Remind students that Tasmanian devils are scavengers that eat carrion, or dead animals. Have students turn and talk as they discuss the importance of scavengers in an ecosystem. Challenge students to explain what might happen to this ecosystem if Tasmanian devils became extinct.

EVALUATE

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

Name _____ Date _____

CONTENT ASSESSMENT: WHAT THE DEVIL!

Use information from the article to explain why each sentence is true.

Sentence	Explanation
1. The Tasmanian devil is a marsupial.	
2. A Tasmanian devil's body parts help it survive.	
3. The Tasmanian devil's eating behaviors nearly caused it to become extinct.	
4. People helped keep Tasmanian devils from becoming extinct.	
5. Scientists may not need to develop a vaccine to save the devils.	
6. It would be bad for the ecosystem if Tasmanian devil's became extinct.	

Nombre _____ Fecha _____

EVALUACIÓN DE CONTENIDO: ¡QUÉ DIABLOS!

Utiliza la información del artículo para explicar por qué las oraciones son verdaderas.

Oración	Explicación
1. El diablo de Tasmania es un marsupial.	
2. Las características corporales del diablo de Tasmania le ayudan a sobrevivir.	
3. La conducta del diablo de Tasmania al comer casi provocó su extinción.	
4. La gente ayudó a evitar que los diablos de Tasmania se extinguieran.	
5. Quizá los científicos no necesiten desarrollar ninguna vacuna para salvar a los diablos de Tasmania.	
6. La extinción del diablo de Tasmania sería mala para el ecosistema.	

MAKE THE WORLD A BETTER PLACE!

SOCIAL STUDIES

NATIONAL GEOGRAPHIC Explorer

Standard Supported

- **C3: Communicating Conclusions & Taking Informed Action: Taking Informed Action:** Explain different strategies and approaches students and others could take in working alone and together to address local, regional, and global problems, and predict possible results of their actions. (D4.7.3-5)

What You Will Need

- Interactive Digital Magazine
- Content Assessment Master (pages 13–14)
- Article Test (pages 20–21)

SOCIAL STUDIES BACKGROUND

In the year 2020, the world came face to face with a global health pandemic. People from all walks of life protested in spite of that, as they called for equality and social change. In times like these, it is more important than ever for students to be able to see things from others' points of view. For only then, will they be able to lead and create positive changes that will help make the world a better place.

In this article, students are introduced to some of the tools they can use to achieve those changes. Based on the book "100 Ways to Make the World Better!" by Lisa M. Gerry, the article provides tips on how students can broaden their minds, open their hearts, and make informed decisions that will help them create the world they wish to see.

Click here for the Kahoot! quiz: https://play.kahoot.it/#/k/7019635b-f97d-4606-a9f8-e013c0d9e925

ENGAGE

Encourage students to review the article and turn and talk with a partner to discuss what they see. Invite students to ask questions and share examples of leaders who have helped make the world a better place.

EXPLORE

Display the **"Make the World a Better Place!" article** with the interactive digital magazine. As a class discuss what it means to create positive change. Brainstorm a list of things students would like to change to make the world a better place.

EXPLAIN

After reading, divide the class into small groups. Assign each group one section or sidebar in the article. Give groups time to discuss how the advice presented in their section could help them become a leader who creates positive change in the world. Rejoin as a class, invite groups to share their ideas. Then revisit the list students created before reading the article. Select one item. **Ask:** *How could you use what you learned in the article to make a positive change in this area?* Invite students to share their ideas. Examine other items on the list in this same way. Encourage students to discuss how the world would be a better place if one or more of these changes were made.

ELABORATE

Separate the class into groups once again. Give groups time to conduct research to find a quote, similar to the Mahatma Gandhi quote in the article, that highlights the main point of the section they reviewed. Invite groups to share their quotes with the class and explain why they chose that particular quote to represent their section. Post the quotes in the classroom.

EVALUATE

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

Name _____ Date _____

CONTENT ASSESSMENT: MAKE THE WORLD A BETTER PLACE!

List five positive changes you can make. Explain how your actions will help make the world a better place.

Action	→	Explain
	→	
	→	
	→	
	→	
	→	

Create a public service announcement about one of the positive changes you listed above. Show how it will help make the world a better place.

Nombre _____ Fecha _____

EVALUACIÓN DE CONTENIDO: ¡HAZ DEL MUNDO UN LUGAR MEJOR!

Haz una lista con cinco cambios positivos que puedas hacer. Explica cómo cada acción contribuiría a mejorar el mundo.

Acción	→	Explicación
	→	
	→	
	→	
	→	
	→	

Crea un anuncio de servicio público sobre uno de los cambios positivos que sugeriste. Muestra cómo ese cambio puede mejorar el mundo.

ARTIFICIAL REEFS

SCIENCE

Standards Supported

- **NGSS ETS1.B: Developing Possible Solutions:** Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2)
- **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 Master (pages 16–17)
- Article Test (pages 22–23)

SCIENCE BACKGROUND

An artificial reef is a man-made structure built to mimic characteristics of a natural reef. Because many natural coral reefs are threatened, artificial reefs play an important role in preventing coastal erosion, holding sediment on beaches, and creating habitats for fish and other aquatic life.

Some artificial reefs, like the underwater MUSA museum—a collection of 12 galleries containing nearly 1,364 artificial habitats off the coast of Cancun, Mexico—were planned. Others, like some sunken ships, were not. Regardless of their origins, over time, they can grow into healthy, stable ecosystems for the organisms that live in and around them.

Click here for the Kahoot! quiz: https://play.kahoot.it/#/k/1f2368f6-e9a3-4f09-b5d3-9e151e91be13

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 already know about artificial coral reefs.

EXPLORE

Display the **"Artificial Reefs" article** with the interactive digital magazine. Invite students to examine the article's photos. Challenge them to identify each object used to create the artificial reefs they see.

EXPLAIN

After reading, remind students that an artificial reef is an underwater structure made by people, typically built to promote marine life in an area. **Ask:** *Why are artificial reefs needed?* (Possible response: Many natural reefs have been damaged by storms, boat anchors, and tourism.) *Are all artificial reefs built on purpose?* (No. Some are accidents, like plane crashes and shipwrecks.) *What was the biggest challenge the MUSA staff and artists faced when attempting to build an artificial reef near Cancun, Mexico?* (finding the right cement) *Why?* (The cement had to be strong enough so the statues didn't crumble and not too acidic or the corals and algae wouldn't be able to take hold and grow.) In small groups, have students discuss how artificial reefs can help both the environment and local economies around the world.

ELABORATE

Remind students that, as the article stated, beginning divers cause more damage to natural reefs than experienced divers do. Have students turn and talk to discuss why this is the case. Challenge them to create a list of rules for beginning divers to follow that will keep them from hurting natural reefs.

EVALUATE

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

Name _____ Date _____

CONTENT ASSESSMENT: ARTIFICIAL REEFS

Use information from the article to complete the worksheet.

What is an artificial reef?

_____

_____

Summarize reasons why they are needed and explain how they are built.

Summarize	Explain

Draw a picture of an artificial reef full of life. Describe how it helps at least three species survive in their ocean habitat.

Draw	Describe

Nombre _____ Fecha _____

EVALUACIÓN DE CONTENIDO: ARRECIFES ARTIFICIALES

Utiliza la información del artículo para completar tu hoja de ejercicios.

¿Qué es un arrecife artificial?

_____

_____

Resume por qué estos arrecifes son necesarios y explica cómo se construyen.

Resume	Explica

Dibuja un arrecife artificial lleno de vida. Describe cómo ayudan los arrecifes artificiales a, al menos, tres especies, a sobrevivir en sus hábitats oceánicos.

Dibuja	Describe

Name _____ Date _____

ARTICLE TEST: WHAT THE DEVIL!

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

1. How are Tasmanian devils and kangaroos alike?

Ⓐ Both live in Australia.

Ⓑ Both are scavengers.

Ⓒ Both are marsupials.

2. What role do Tasmanian devils play in their ecosystem?

Ⓐ They are the top predators.

Ⓑ The are the cleanup crew.

Ⓒ They are the most dominant plant-eaters.

3. How do Tasmanian devils pass cancer to each other?

Ⓐ They scratch each other.

Ⓑ They lick each other.

Ⓒ They bite each other.

4. What did people do to save Tasmanian devils from extinction?

Ⓐ They started a captive breeding program.

Ⓑ They moved all Tasmanian devils to zoos.

Ⓒ They found a cure for the cancer.

5. Why do scientists think devils may be adapting to fight the disease?

_____

_____

_____

_____

Nombre _____ Fecha _____

PRUEBA DEL ARTÍCULO: ¡QUÉ DIABLOS!

Lee las preguntas. Encierra en un círculo la letra de la opción correcta y escribe la respuesta a la última en los espacios en blanco.

1. ¿En qué se parecen los diablos de Tasmania y los canguros?

Ⓐ Ambos viven en Australia.

Ⓑ Ambos son necrófagos.

Ⓒ Ambos son marsupiales.

2. ¿Qué papel desempeñan los diablos de Tasmania en sus ecosistemas?

Ⓐ Son los principales depredadores.

Ⓑ Son los basureros de la naturaleza.

Ⓒ Son los herbívoros dominantes.

3. ¿Cómo se transmiten el cáncer entre sí los diablos de Tasmania?

Ⓐ Se arañan.

Ⓑ Se lamen.

Ⓒ Se muerden.

4. ¿Qué medida salvó de la extinción a los diablos de Tasmania?

Ⓐ un programa de reproducción en cautividad

Ⓑ llevar a todos los diablos de Tasmania a zoos

Ⓒ desarrollar una cura para su tipo de cáncer

5. ¿Por qué creen los científicos que los diablos de Tasmania podrían estar adaptándose a combatir su enfermedad?

_____

_____

_____

_____

Name _____ Date _____

ARTICLE TEST: MAKE THE WORLD A BETTER PLACE!

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

1. What can learning about geography help you do?

Ⓐ Learn how to listen.

Ⓑ Learn how to think globally.

Ⓒ Learn how to write stories.

2. Which of these is NOT a way to boost your listening skills?

Ⓐ Try to understand.

Ⓑ Be open-minded.

Ⓒ Interrupt.

3. Who is the best person to get information from?

Ⓐ a reliable source

Ⓑ a source with an agenda

Ⓒ an old source

4. What does "standing up for justice" mean?

Ⓐ getting into trouble for something you didn't do

Ⓑ speaking up when you see something wrong

Ⓒ bullying people who are different from you

5. What are three tips you would give others who want to create positive change?

_____

_____

_____

_____

Nombre _____ Fecha _____

PRUEBA DEL ARTÍCULO: ¡HAZ DEL MUNDO UN LUGAR MEJOR!

Lee las preguntas. Encierra en un círculo la letra de la opción correcta y escribe la respuesta a la última en los espacios en blanco.

1. ¿Qué puedes aprender de la geografía?

Ⓐ Aprendo a escuchar.

Ⓑ Aprendo a pensar a nivel global.

Ⓒ Aprendo a escribir historias.

2. ¿Cuál de estas NO es una manera de mejorar tu capacidad para escuchar?

Ⓐ intentar comprender

Ⓑ tener la mente abierta

Ⓒ interrumpir al orador

3. ¿Cuál es la mejor fuente de información?

Ⓐ una fuente de confianza

Ⓑ una fuente con intereses

Ⓒ una fuente antigua

4. ¿Qué significa defender la justicia?

Ⓐ buscarse problemas por algo que no hiciste

Ⓑ alzar la voz cuando algo está mal

Ⓒ meterte con gente diferente a ti

5. ¿Qué tres sugerencias darías a quien quiera cambiar las cosas a mejor?

_____

_____

_____

_____

Name _____ Date _____

ARTICLE TEST: ARTIFICIAL REEFS

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

1. Which of these is a threat to coral reefs?

Ⓐ shorelines

Ⓑ pollution

Ⓒ spawning areas

2. What do all artificial reefs have in common?

Ⓐ They are man-made.

Ⓑ They were built on purpose.

Ⓒ They are all found in the deepest parts of the ocean.

3. What are the statues in the MUSA artificial reef made of?

Ⓐ barnacles

Ⓑ coral

Ⓒ cement

4. How did people give the MUSA artificial reef a head start?

Ⓐ They released fish that now live around the reef.

Ⓑ They placed young staghorn coral polys on them.

Ⓒ They repurposed oil rigs.

5. What are three different reasons why people build artificial reefs?

_____

_____

_____

_____

Nombre _____ Fecha _____

PRUEBA DEL ARTÍCULO: ARRECIFES ARTIFICIALES

Lee las preguntas. Encierra en un círculo la letra de la opción correcta y escribe la respuesta a la última en los espacios en blanco.

1. ¿Cuál de las siguientes respuestas representa una amenaza para los arrecifes de coral?

Ⓐ las costas

Ⓑ la contaminación

Ⓒ las áreas de desove

2. ¿Qué tienen en común todos los arrecifes artificiales?

Ⓐ Están hechos por el hombre.

Ⓑ Están construidos con un propósito.

Ⓒ Están en lo más profundo del océano.

3. ¿De qué están hechas las estatuas del arrecife artificial del MUSA?

Ⓐ de lapas

Ⓑ de coral

Ⓒ de cemento

4. ¿Qué se hizo para empezar a atraer vida al arrecife artificial del MUSA?

Ⓐ Soltaron peces que ahora viven en el arrecife.

Ⓑ Pusieron pólipos jóvenes de coral de cuerno de venado sobre el arrecife.

Ⓒ Buscaron otra utilidad a las plataformas petrolíferas.

5. ¿Qué tres razones hay para construir arrecifes artificiales?

_____

_____

_____

_____

PATHFINDER AND ADVENTURER

ANSWER KEY

WHAT THE DEVIL!

Content: page 10

1. It is a mammal (an animal that has fur or hair and feeds its babies milk) whose young finish developing in a pouch on their mother's abdomen.
2. Answers will vary, but students may use information from the "All About Tasmanian Devils" sidebar to answer this question.
3. Tasmanian devils bite each other when they fight over food. They passed the cancer to each other through their bites.
4. People created captive breeding programs, used safe traps for catch and release to record devils' health, and are trying to create a vaccine.
5. Some previously infected devils are regaining their health. They may be adapting to fight the disease themselves.
6. Tasmanian devils play a huge role as scavengers in their ecosystem. They keep the system clean.

Article Test: page 18

1. C; 2. B.; 3. C; 4. A; 5. Some previously infected devils are regaining their health.

MAKE THE WORLD A BETTER PLACE!

Content: page 13

Answers will vary, but students should identify five actions they could take and list five reasonable results. They should select one action and create an informative public service announcement promoting its merits.

Article Test: page 20

1. B; 2. C; 3. A; 4. B; 5. Answers will vary.

ARTIFICIAL REEFS

Content: page 16

Question: An artificial reef is an underwater structure made by people, typically built to promote marine life in an area.

Summarize: They are built to prevent coastal erosion, hold sediment on beaches, or create habitats.

Explain: A large object is installed in an area where the sea bottom is flat and featureless.

Draw: Drawings will vary.

Describe: Descriptions will vary, depending on why the reef was built. Students should identify at least three species living on or around the artificial reef.

Article Test: page 22

1. B; 2. A; 3. C; 4. B; 5. to prevent coastal erosion, hold sediment on beaches, and create a habitat for fish and other aquatic life

PATHFINDER Y ADVENTURER

CLAVE DE RESPUESTAS

¡QUÉ DIABLOS!

Contenido: página 11

1. Es un mamífero (animal con pelo que da leche a sus bebés) cuyas crías terminan su desarrollo en una bolsa o marsupio en el abdomen de su madre.
2. Las respuestas variarán, pero los estudiantes pueden utilizar la información del apartado "Todo sobre el diablo de Tasmania" para responder a esta pregunta.
3. Los diablos de Tasmania se muerden entre sí al pelearse por la comida. Se transmiten el cáncer a través de los mordiscos.
4. Se creó un programa de reproducción en cautividad; se usaron trampas seguras para capturar a los diablos y liberarlos después para monitorizarlos, y se trató de desarrollar una vacuna.
5. Algunos diablos infectados se están recuperando. Puede que estén adaptándose para combatir la enfermedad.
6. Los diablos de Tasmania son una pieza clave para sus ecosistemas como necrófagos. Mantienen sus hábitats limpios.

Prueba del artículo: página 19

1. C; 2. B; 3. C; 4. A; 5. Algunos diablos ya infectados están recuperando su salud.

¡HAZ DEL MUNDO UN LUGAR MEJOR!

Contenido: página 14

Las respuestas variarán, pero los estudiantes deben identificar cinco acciones y hacer una lista con cinco resultados razonables de dichas acciones. Deben seleccionar una de las acciones y crear un anuncio de servicio público informativo que promocione sus ventajas.

Prueba del artículo: página 21

1. B; 2. C; 3. A; 4. B: 5. Las respuestas variarán.

ARRECIFES ARTIFICIALES

Contenido: página 17

Pregunta: Un arrecife artificial es una estructura submarina hecha por personas y normalmente construida para promover la vida marina en una zona.
Resume: Son construidos para prevenir la erosión de la costa, para retener los sedimentos en las playas o para crear hábitats.
Explica: Un objeto grande se deposita en una zona del fondo marino llana y sin accidentes geográficos.
Dibuja: Los dibujos variarán.
Describe: Las descripciones variarán, según la razón que mencionen. Los estudiantes deben identificar, al menos, tres especies que vivan en los arrecifes artificiales.

Prueba del artículo: página 23

1. B; 2. A; 3. C; 4. B: 5. para prevenir la erosión costera; para retener los sedimentos en las playas y para crear un hábitat para los peces y otras formas de vida acuática