TEACHER’S GUIDE

In This Guide
In this guide, you will find language arts, science, and social studies lessons for the articles in this issue of Young Explorer Scout.

Young Explorer Magazine
Young Explorer classroom magazines for kindergarten and grade 1 develop young readers’ literacy skills through engaging informational text. Great storytelling and stunning photographs teach students about our planet and the people, plants, and animals that live on it. Encourage your students to read and explore our world with Young Explorer magazines.

Scout
The Scout edition is written for kindergarten students. Some articles with characteristics of emergent text will be easier for students to read. You may find that other articles are better suited for teacher read-alouds.

Visit Young Explorer’s website, NatGeo.org/explorermag-resources, to find additional resources for extending your students’ learning.

Your Subscription Includes:
• Magazines   • Classroom Posters   • Projectable Magazine
• Teacher’s Guide   • Digital Edition (additional subscription required)
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. Students will use the skills and attitudes as they do the activity on the back cover. The activity relates to the article "Pulling My Sled."

MINDSET OF AN EXPLORER
KEY FOCUS AREAS

A — Attitudes

National Geographic kids are:
CURIOUS about how the world works, seeking out new and challenging experiences throughout their lives.
RESPONSIBLE, with concern for the welfare of other people, cultural resources, and the natural world. NG kids are respectful, considering multiple perspectives, and honoring others regardless of differences.
EMPOWERED to make a difference. NG kids act on curiosity, respect, and responsibility. They are adventurous and persist in the face of challenges.

S — Skills

National Geographic kids can:
OBSERVE and document the world around them and make sense of those observations.
COMMUNICATE experiences and ideas effectively through language and media. They are storytellers!
COLLABORATE with others to achieve goals.
SOLVE PROBLEMS by generating, evaluating, and implementing solutions after identifying alternatives, weighing trade-offs, and making well-reasoned decisions.

K — Knowledge

National Geographic kids understand:
THE HUMAN JOURNEY is all about where we have been, where we live now (and why), and where we are going.
OUR CHANGING PLANET encompasses all that coexists on our planet—interconnected through systems that generate and nurture each other.
WILDLIFE AND WILD PLACES inhabit our planet—from the butterflies in our back yards to the lions in Africa.
**Pulling My Sled**

**LANGUAGE ARTS**

**Objective**
- Students will name the author and understand the role of the author in presenting ideas in a text.

**Standard Supported**
- **CCSS Reading Informational Text:** Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. (K-6)

**Resources**
- Language Arts Master (page 5)

**Summary**
Jade Hameister writes about how she used pulls on her journey to the North Pole. She used pulls to get ready for her trip, and she pulled her sled for many days to make it to the North Pole.

**WORD WORK**

**Sight Words:** my, is, I, went, to, the, on, get, a, did, in, it, for

**BUILD VOCABULARY AND CONCEPTS**
- North Pole
- sled
- pull/pulls/pulled
- pull-ups

The words above are used in the article and some may be new to students. Read and define the words with students.

**READ AND DISCUSS**
Read the article “Pulling My Sled” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

**Pages 2–3**
Read the title and the byline. Ask students: **Who is the author of this article?** [Jade Hameister] **How do we know Jade Hameister is the author?** [because it says “by Jade Hameister” after the title] **The title is “Pulling My Sled.” Who do you think “my” is referring to in the title?** [Jade] Have students look at the pictures on pages 2–3 and discuss what they see. They should be able to infer that these are pictures of Jade and that she is a young girl in a cold place.

**Pages 4–5**
Read the text. Ask: **What did Jade do to get ready?** [She used pulls. She pulled a tire and did pull-ups.] Then Jade began her trip. **What did she have to pull and why?** [She pulled her sled because it had her things in it. She had to pull the sled to move it.]

**Pages 6–7**
Read the text. Ask: **What are some different places Jade had to pull her sled?** [on flat ice and over hills of ice] **What did Jade finally do?** [She pulled her sled for many days and made it to the North Pole.]

**EXTEND**

**Extend Your Thinking**
Display the Learning Framework Attitudes and Skills feature on the back cover of the magazine. As a class, discuss the difference between dreams people have at night and dreams—or goals—they have about the future. Tell students that the best way to make a dream come true is to create and follow a plan. That’s what Jade Hameister did, and it got her all the way to the North Pole. Instruct students to think about something they dream of doing. Challenge them to create a plan. Then have students write a short story telling or draw a picture showing how they plan to make their dreams come true.

**TALK AND WRITE**
Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

- **Talk about what you learned about Jade.**
- **Draw something you learned about Jade.**
Objective
• Students will understand that pulls can have different strengths.

Standard Supported
• NGSS PS2.A: Forces and Motion: Pushes and pulls can have different strengths and directions. (K-PS2-1), (K-PS2-2); Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1), (K-PS2-2)

Resources
• Science Master (page 6)

Science Background
The North Pole is the northernmost point on Earth. Unlike the South Pole, it is not a land mass. The North Pole is located in the middle of the Arctic Ocean. The waters there are almost always covered with constantly moving ice. In April 2016, Jade Hameister, a young girl from Melbourne, Australia, skied to the North Pole. She was the youngest person to do so from anywhere outside the Last Degree. Jade has been continuing her icy adventures. In June 2017, she traversed the icecap of Greenland, and she is planning a future South Pole expedition. Both of these journeys will be part of an upcoming National Geographic documentary.

ENGAGE
Most students will be familiar with what it means to pull. Have students work with a partner. Ask one partner in each pair to pantomime pulling an empty wagon. Then have the other partner imagine that the wagon is filled with heavy rocks. Ask that partner to pantomime what it would be like to pull the rock-filled wagon. Students can discuss the difference between the pulls needed for each wagon. They should quickly understand that pulls can have different strengths. A weak pull can move something that is not heavy. Moving a heavy object takes a strong pull.

EXPLAIN
After reading, have students turn and talk with a partner to tell about the pulls Jade did before and during her trip.

Before Jade’s Trip
• She pulled a tire.
• She did pull-ups.

During Jade’s Trip
• She pulled her sled to move it.
• She pulled her sled on flat ice.
• She pulled her sled over hills of ice.

Then have students look at the pictures in the article and discuss the different strengths of each pull. Which ones need more strength and which need less? Have students explain why each type of pull needs more or less strength.

EVALUATE
Assess students’ understanding with the Science Master for this article. You might also use the following prompts.

• What did Jade pull?
• Describe how and why Jade pulled her sled.
Jade did something special.

Draw something special that you did.
Look at each picture. Circle if the pull is weak or strong.

- Weak pull
- Strong pull

Draw a weak pull. Draw a strong pull.
Antarctica

LANGUAGE ARTS

Objective
• Students will describe the relationship between pictures and text.

Standard Supported
• CCSS Reading Informational Text: With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). [K-7]

Resources
• Language Arts Master (page 9)

Summary
Antarctica is the coldest place on Earth. People don’t live there, but they visit to look at the ice and animals such as sea birds, seals, and whales.

WORD WORK
Sight Words: this, is, it, the, on, too, to, in, look, at, big, they, are, and, you, like

BUILD VOCABULARY AND CONCEPTS
• Antarctica
• cold/coldest
• ice/icebergs
• covers
• float

Introduce the vocabulary words to students by displaying them in the classroom on a word wall or on a board.

Pronounce the words for students, and determine if they know some of the words, such as cold and ice. Together, come up with student-friendly definitions and pictures or drawings that you can add to the word wall. Let students know they will be reading an article that tells about a very cold place that has lots of ice.

Do a picture walk through the article “Antarctica” and point out the locator map and pictures that will help students understand the words and the place you will be reading about.

READ AND DISCUSS
Read the article “Antarctica” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

Pages 8–9 Read the title and text on pages 8 and 9. Then point to the map on page 9. Let students know that the map is a flat picture of Earth. Point out where Antarctica is on the map. Then ask: What did we find out about Antarctica? [It is the coldest place on Earth.] How does the picture help us see that Antarctica is a very cold place? [There is snow and ice all around.]

Pages 10–11 Read the text. Ask: What else did we find out about Antarctica? [Antarctica is too cold to live in. People only visit there.] What do people do when they visit? [Some look at the ice; some look at the animals.] Ask: How do the pictures help us understand what the text says? [They show people visiting Antarctica. They show the ice people look at and a few of the animals they can see there.] Point out the labels of the animal names and read them to students as they look at each of the animals.

Pages 12–13 Read the text. Make sure students understand what covers means. Let them know that in this case it means that ice is completely spread over the land. Point out the label iceberg. Ask: What did we find out about icebergs? [They are big pieces of ice that float in the sea.] Ask students to discuss how the pictures help them understand what the text says. [Students should note how the pictures show how much ice is in Antarctica and how big the icebergs are.]

Pages 14–15 Read the text. Point out the labels and read them as students look at the pictures. Ask: What animals live in Antarctica? [antarctic tern, southern elephant seal, humpback whale, blue-eyed shag] Ask: Would you like to visit Antarctica? Why or why not?

TALK AND WRITE
Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

• Talk about what you learned about Antarctica.
• Draw something you learned about Antarctica.
**Objective**
- Students will identify environmental characteristics of places.

**Standard Supported**
- D2.Geo.3.K-2. Use maps, globes, and other simple geographic models to identify cultural and environmental characteristics of places.
- CCSS Counting and Cardinality: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (K.CC.B.5)

**Resources**
- The Poles poster (Teacher’s Edition)
- Social Studies Master (page 10)

---

**Social Studies Background**

Both the Arctic and the Antarctic are important to the rest of Earth. They help moderate and stabilize the climate for the rest of the planet. But what are some of the differences between these two cold places?

**The Arctic**
The Arctic is the area between the Arctic Circle and the North Pole. The Arctic is ocean (the Arctic Ocean) that is surrounded by land. An animal associated with the Arctic is the polar bear.

**The Antarctic**
Antarctica is where the South Pole is. It is land that is surrounded by ocean. It is the southernmost continent. It is also the coldest place on Earth. It is so dry there that it is considered a desert. An animal associated with the Antarctic is the penguin.

---

**EXPLORE**
With students, explore some outdoor activities that can be done in the cold and what a person would need to wear to survive in cold weather, especially when there is snow and ice on the ground. A few possibilities are listed below.

**Activities:** skiing, sledding, ice skating

**Cold-Weather Clothing:** hat, scarf, mittens, snow pants, heavy socks, boots

---

**EXPLAIN**
Ask students to explain what they learned about Antarctica in the article “Antarctica.” Have them turn and talk with a partner to tell what they’ve learned. They can use the pictures to guide them.

- Antarctica is the coldest place on Earth.
- Antarctica is too cold to live in, but people visit there.
- People look at the ice and the animals.
- Antarctica has a lot of ice. The ice covers the land.
- Icebergs float in the sea.
- There are sea animals in Antarctica. Sea birds live by the sea, and seals and whales live in the sea.

---

**ELABORATE**
Read through The Poles poster with students so they can find out where the Arctic and the Antarctic are located and how they are different from each other.

---

**EXTEND**
To prepare students for the Social Studies and Math Master, review the animals mentioned in the “Antarctica” article. Some of these animals are shown on the Master, and students will be asked to count how many there are of each animal. There will be no more than 10 of each animal, but if some students need help with counting to that number, you might want to pair them with other students who can work with them to count the animals.

---

**EVALUATE**
Assess students’ understanding with the Social Studies Master for this article. You might also use the following prompts.

- Why do people go to Antarctica?
- What does Antarctica look like?
LANGUAGE ARTS: Visit Antarctica

Draw what you would like to look at in Antarctica.

Label your picture with words from the word bank.

| ice | icebergs | penguins | sea birds | seals | whales |

Circle the correct shadow.

**visitor**

**penguin**
SOCIAL STUDIES AND MATH: How Many?

Color and count the different animals.

Write how many.

- penguins ____
- antarctic terns ____
- elephant seals ____
- humpback whales ____
- leopard seals ____
Objective
• Students will understand and use question words when talking about the text.

Standard Supported
• CCSS Language Standards: Understand and use question words [interrogatives] [e.g., who, what, where, when, why, how]. (K-1e)

Resources
• Language Arts Master [page 13]

Summary
Penguin parents work together to care for their baby chick before and after it hatches from the egg. They keep it warm and safe and fish for food to feed it until the chick’s feathers change and it learns to swim. Then it can fish for food on its own.

WORD WORK
Sight Words: for, they, the, one, she, it, to, is, on, a, now, can

BUILD VOCABULARY AND CONCEPTS
• penguin
• parent
• mother
• father
• egg
• chick

The words above are used in the article “Penguin Parents.” Have pictures available for students to see, or do a picture walk through the article to point out the penguin parents and the chick.

Post the words and pictures on a classroom word wall. Refer to the word wall throughout discussion of the article, and, as you read and learn about penguins, add more information to the word wall.

READ AND DISCUSS
Read the article “Penguin Parents” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

Pages 16–17 Read the text. Ask: What are these animals? [penguins] Point to the label. Read it and let students know that these penguins are called emperor penguins. Ask: What do penguin parents do? [They care for their baby. They work together.] Ask students to think of other questions they have about penguin parents. Let them know that these words are question words that they can use: who, what, where, when, why, how. Write students’ questions on the board, and let them know they may find the answers to their questions as you read the rest of the article. If, after reading the article, there are questions that have not been answered, you can research to find the answers together as a class.

Pages 18–19 Read the text. Ask: Who lays one egg? [mother] What happens next? [The mother gives the egg to the father.] What does the father do with the egg? [He keeps it warm on top of his feet.]


Pages 22–23 Read the text. Ask: What else do we learn about the chick and the penguin parents? [The parents bring back fish for the chick to eat. The chick grows, its feathers change, and it learns to swim so it can fish for food on its own.]

TALK AND WRITE
Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

• Talk about penguin parents.
• Draw something you learned about penguin parents.
Penguin Parents

SCIENCE

Objective
• Students will learn that penguin parents feed and care for their young to help it live and grow.

Standard Supported
• NGSS LS1.C: Organization for Matter and Energy Flow in Organisms: All animals need food in order to live and grow. They obtain their food from plants or from other animals. (K-LS1-1)

Resources
• Penguins of Antarctica poster (Teacher’s Edition)
• Science Master (page 14)

Science Background
Penguins are flightless birds that live primarily in the Southern hemisphere. Penguins spend up to 80 percent of their time in the ocean. They have flippers instead of wings. While penguins waddle upright on land, they are expert swimmers and divers. They are able to swim up to 15 miles per hour. Penguins are carnivores that eat krill, squid, and fish. Their black and white bodies help to camouflage them in the ocean, as they hunt for food. There are 17–19 species of penguins that range in size and coloring. All penguins are primarily black and white, but some species have orange or yellow feathers around their heads or necks.

ENGAGE
Engage students by talking about penguins. Many students will know what penguins look like, and some may have seen them in a zoo.

EXPLAIN
Ask students to explain what they learned about penguin parents and their chick. Ask students to tell what they learned in their own words.
• Penguin parents work together to care for their baby.
• The mother penguin lays an egg, and she gives it to the father penguin to take care of it.
• The father keeps the egg warm and safe on top of his feet.
• The baby chick hatches from the egg.
• One parent takes care of the chick while the other goes fishing.
• The parents feed the chick fish so it grows.
• The chick’s feathers change as it grows.
• The growing chick learns to swim so it can fish for food on its own.

ELABORATE
Let students know there are many different kinds of penguins. Spend time with students reading and looking at the Penguins of Antarctica poster. You might want to make a chart or a Venn diagram and work with students to record how the penguins on the poster are the same and different.

EVALUATE
Assess students’ understanding with the Science Master for this article. You might also use the following prompts.
• What does the penguin mother do to care for the chick?
• What does the penguin father do to care for the chick?
 LANGUAGE ARTS: Ask About Penguins

Trace each question word and the question mark.

Who  What  When
Where  Why

Add a question mark to complete each sentence.

Who lays one egg?
What does the father do?

Write a question about the chick or the penguin parents.

__________________________________________
__________________________________________
__________________________________________
__________________________________________

© 2018 National Geographic Society. All rights reserved. Teachers may copy this page to distribute to their students.
**SCIENCE: A Chick Grows**

Look at the chart. Then circle the correct answer.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The mother lays one egg.</td>
<td>The father keeps the egg safe on his feet.</td>
<td>The chick hatches from the egg. The parents take turns caring for it.</td>
<td>The parents feed the chick.</td>
<td>The chick learns to swim.</td>
</tr>
</tbody>
</table>

1. The mother lays one ______.
   - fish  
   - egg  
   - ice

2. The father keeps the egg safe on his ______.
   - ice  
   - egg  
   - feet

3. The ____ hatches from the egg.
   - father  
   - mother  
   - chick
Penguin Parents

Language Arts: Ask About Penguins, page 13
Students should trace each question word and the question mark, add a question mark to the end of each sentence, and write a question about the chick or the penguin parents.

Science: A Penguin Family, page 14
Students should use the chart to help them circle the correct answers.

1. egg
2. feet
3. chick