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/explorermagazine, to find additional resources for extending your students’ learning.

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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. Students will use the skills and attitudes as they do the activity on the back cover. The activity relates to the article “Saving Cranes.”

MINDSET OF AN EXPLORER

KEY FOCUS AREAS

A ——— Attitudes

National Geographic kids are:
CURIOS 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.
Dogs Differ

Objectives
• Students will ask and answer questions about key details in a text.
• Students will use adjectives to describe how dogs differ.

Standard Supported
• CCSS Reading Informational Text: With prompting and support, ask and answer questions about key details in a text. (K-1)
• CCSS Language Standards: Use frequently occurring adjectives. (1-1f)

Resources
• Language Arts Master (page 5)

Summary
Dogs differ in many ways. They come in different shapes and sizes. They also have different snout shapes and have different coats and different lengths and textures of fur.

WORD WORK
Sight Words: come, in, they, are, big, and, have, all, a, little, that, is, what, make, so

BUILD VOCABULARY AND CONCEPTS
• different
• shape
• size
• snout
• coat
• fur

The words above are used in the article and some may be new to students. Pronounce the words and ask students to talk about the words they know, and as a class come up with student-friendly definitions for each word that you can post on the word wall. Tell students they will be adding more information about each word, such as drawings, photos, and descriptions, as they learn more. Let students know they will be learning about how dogs differ, or are different from one another. Ask students to listen for the vocabulary words as you read the article.

READ AND DISCUSS
Read the article “Dogs Differ” 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 text. Ask students: How does the text say dogs differ? (They come in many shapes and sizes. Dogs are different in many ways.) Ask students if they know of some ways dogs are different. You might have them look at the pictures on pages 2 and 3 and describe how the dogs pictured are different from one another.

Pages 4–5 Read the text. Ask: What are some ways we learned that dogs can be different from one another? (Dogs can be different sizes: some are big and tall; others can be short and small. Dogs can also have different snout shapes.) Have students look at the pictures of the dogs on pages 4 and 5 and use adjectives to describe those dogs.

Pages 6–7 Read the text. Ask: What are some other ways we learned that dogs can be different from one another? (Dogs can have different coats with patches or spots and long, short, or curly fur.) Have students look at the pictures of the dogs on pages 6 and 7 and use adjectives to describe those dogs.

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 how dogs differ.
• Draw something you learned about the ways dogs can differ.
**Dogs Differ**

**SCIENCE**

**Objective**
- Students will understand that dogs are recognizable as similar but can vary in many ways.

**Standard Supported**
- NGSS From Appendix H: Understandings about the Nature of Science: Science is a Way of Knowing: Science knowledge helps us know about the world. (K-2)

**Resources**
- Wild Dogs and Pet Dogs poster (Teacher’s Edition)
- Science Master (page 6)

**Science Background**
Dogs are all part of the same species, but there are many different breeds and mixed breeds. There are large dogs, small dogs, and many sizes in between. Dogs of the same breed can look very much alike, but they can also vary in appearance. For example, all Great Danes are large dogs with similar features and smooth, short coats. However, their coats can vary in color. Some small dogs, such as Chihuahuas, dachshunds, and Yorkshire terriers may be similar in size and weight, but they vary from one another in many ways, including shape of snout, length of body and legs, length and texture of fur, length of tail, and shape and positioning of ears. In addition to variation in appearance, different breeds can also vary in behavior, temperament, and activity level.

**ENGAGE**
Students will know what dogs are, and many students may have a dog as a pet. Initiate a discussion about dogs, and have students who have dogs as pets talk about their dogs. Students who don’t have a pet dog may want to talk about a dog a relative has or a familiar dog in their neighborhood.

**EXPLORE**
Have students continue the discussion about their dogs in more detail. Ask the following questions.
- How big or small is your dog?
- What color fur does your dog have?
- What kind of dog is it?

**EXPLAIN**
After reading, have students turn and talk with a partner to tell about the ways they learned that dogs can differ.
- Dogs have different shapes.
- Dogs come in different sizes.
- Dogs can be big and tall.
- Dogs can be short and small.
- Dogs can have short snouts or long snouts.
- Dogs can have patches or spots on their coats.
- Dogs can have long, short, or curly fur.

Then have students consider the discussion they had about their own dogs or dogs they know. You might want to have students draw a picture of their dog or a dog they know, and then have them move into groups that fit the categories shown below. Students will need to move into new groups for each category. Each time they move, ask students to discuss their dogs and how their dogs are similar to and different from the others in the group.
- small or large dogs
- short snout or long snout
- patches, spots, or one-color coat.
- long, short, or curly fur

Students may want to come up with other categories of groups to move into that distinguish a dog’s appearance, such as type of tail, type of ears, and so on.

**ELABORATE**
Display the Wild Dog and Pet Dog poster. Read the text on the poster and the labels that tell what each picture is. You may want to have a discussion with students, or as a class create a chart that tells how each animal pictured looks similar to or different from a pet dog.

**EVALUATE**
Assess students’ understanding with the Science Master for this article. You might also use the following prompts.
- What is one way dogs can differ?
- Describe how dogs’ coats can be different.
**LANGUAGE ARTS: Adjective Word Search**

Draw lines from each word to the dog it describes. Then find and circle the words that describe dogs.

- big
- short
- small
- tall

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Meet Jake and Rosie.

Circle the correct answers.

1. Which dog has a longer snout?  (Rosie ) ( Jake )

2. Which dog is bigger?  (Rosie ) ( Jake )

3. Which dog has spots? (Rosie ) ( Jake )

4. Which dog has short fur?  (Rosie ) ( Jake )
Objective
• Students will recognize and name end punctuation.

Standard Supported
• CCSS Language Standards: Recognize and name end punctuation. (K-2b)

Resources
• Language Arts Master (page 9)

Summary
There are many ways to find out what the weather will be like each day, so you can prepare for the weather. You can check a newspaper, TV, or app. The weather reports say the weather will be windy, snowy, and stormy.

WORD WORK
Sight Words: this, is, a, she, what, the, will, be, like, they, help, you, get, say(s), it, on, that, to, me

BUILD VOCABULARY AND CONCEPTS
• get ready
• weather
• windy
• snowing
• storm

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. Together with students, talk about what weather is. Ask students which of the other words in the vocabulary list are examples of weather. Then talk with students about what it means to get ready for something. Ask the following questions:

• How might you get ready for windy weather?
• How might you get ready when it is snowing?
• How might you get ready when there is a storm?

READ AND DISCUSS
Read the article "Ready for Weather" 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 ask: What does a weather scientist do? (She studies weather and tells people what the weather will be like.) How can you find out what the weather will be like today? (You can check a newspaper, TV, or an app.) What can checking on the weather do? (It can help you get ready so you will know what to wear or what to do.)

Pages 10–11  Read the text. Ask: What is the way to check the weather that is mentioned here? (a weather chart) Ask students to look at the picture of the weather chart and describe the information it shows. (It shows what the weather will be like and the temperatures for today and tomorrow.) What does the text tell us a windy day is good for? (flying a kite)

Pages 12–13  Read the text. Ask: What is the way to check the weather that is mentioned here? (TV) Ask students to look at the picture of the TV weather forecast and describe the information it shows. (It shows what the weather will be like for three days.) Ask students to look at the picture and tell what the weather is like in the picture.

Pages 14–15  Read the text. Ask: What is the way to check the weather that is mentioned here? (a weather app) Ask students to look at the picture of the weather app and describe the information it shows. (It shows what the weather will be like today.) Ask: What will the weather be like? (stormy) What does the text say you should do when a storm is coming? (stay indoors)

Write the following question on the board: What is the weather today? Then write these sentence frames on the board and ask students to fill in the blanks.

Today the weather is __________.
______ weather is ______!

After students fill in the blanks, ask them to identify the end punctuation of the question and the other sentences.

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 getting ready for weather.
• Draw something you learned about weather.
Ready for Weather

SCIENCE

Objective
- Students will learn that scientists forecast weather so people can get ready for the weather.

Standard Supported
- NGSS ESS3.B: Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. (K-ESS3-2)

Resources
- Severe Weather poster [Teacher’s Edition]
- Science Master [page 10]

Science Background
Sometimes the terms weather and climate are used interchangeably, but weather and climate are different. Weather refers to the state of the atmosphere during a shorter time period in a given place. Weather changes each day and throughout the day. Climate refers to the average type of weather in a larger area, such as a region, country, or continent, over an extended period of time.

Some components, or parts, of weather include temperature, atmospheric pressure, wind, humidity, precipitation, and cloudiness.

ENGAGE
Talk with students about the weather. You might ask the following questions:
- What is the weather like today?
- What was the weather like yesterday?
- What do you think the weather will be like tomorrow?

EXPLORE
With students, explore what they can do in different types of weather.
- What can you do on a windy day?
- What can you do on a sunny day?
- What can you do on a rainy day?
- What can you do on a snowy day?

EXPLAIN
Ask students to explain what they learned about weather and why it is important to know what the weather will be like each day. Use the following sentence starters to guide the discussion.
- A weather scientist is someone who ___________.
- Some ways to find out about the weather are ___________.
- It is important to know what the weather is today because ___________.
- When the weather is windy you can ___________.
- When it is snowing, you should wear ___________.
- When it is storming, you should stay ___________.

ELABORATE
Read through the Severe Weather poster with students so they can learn about different types of severe weather. Have students look at each of the pictures as you read about each type of weather. Then have them describe what they see in the pictures. Depending on the weather in the area in which you live, students may be familiar with some of these types of severe weather. Talk with them about why it is important to learn about severe weather and what you can do to be prepared for it.

EVALUATE
Assess students’ understanding with the Science Master for this article. You might also use the following prompts.
- What are some ways to find out about the weather?
- Why is it important to know what the weather is each day?
LANGUAGE ARTS: Weather Words

Draw lines to match the words to the symbols.

snowy  stormy  sunny  windy

Write the weather words to compete the sentences.

1. I can fly my kite.
   Today is ______________.

2. It is warm and bright.
   Today is __________.

3. It is cold and snowing.
   Today is ____________.

4. I hear thunder and see lightning.
   Today is __________.
SCIENCE: Weather Wise

Draw today’s weather.

Draw what to wear in today’s weather.
Dr. Olivier Nsengimana is an animal doctor who helps save cranes. Cranes are big birds that live in the wild. People sell cranes for pets, but cranes should not be pets. Nsengimana works with other people to help pet cranes live in the wild again. He also works with kids to help them learn about cranes.

Cranes are big birds. Their wings are ___________, and their legs are ___________.

A crane’s head has different colors. Those colors are ___________.

Other things we can say about cranes are ___________.

In the top picture, Dr. Nsengimana is ___________.

In the bottom picture, the people are ___________.

In the top picture, Dr. Nsengimana is ___________.

In the bottom picture, the people are ___________.

Dr. Nsengimana talks with kids so they can learn how cranes should live. He works with many people, and they all help cranes. He also wrote a book about cranes.

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 Dr. Nsengimana and the cranes.
- Draw something you learned about cranes.
Learning Framework Key Focus Area
• Skills: National Geographic kids can: COLLABORATE with others to achieve a goal.

Resources
• Learning Framework Master (page 14)

Science Background
Grey crowned cranes are large birds, with males being slightly larger than females. Cranes are about 3 feet in height and weigh nearly 8 pounds. Their wing span is approximately 6.5 feet. These cranes have long legs for wading through tall wetland grasses as they forage for food. Grey crowned cranes are omnivores, which means they eat both plants and animals. Much of their diet consists of tips of grasses, seeds, groundnuts, insects, other invertebrates, and small vertebrates. These cranes have a lifespan in the wild of about 22 years.

EXPLAIN
Ask students to explain what Dr. Nsengimana does and how he works with others to help the cranes. Help students to make inferences about what they read, based on the text and the pictures in the article.

• Dr. Nsengimana is an animal doctor who helps cranes.
• He works in Rwanda, Africa, where the cranes live in the wild.
• People take the cranes from the wild to sell them as pets.
• Dr. Nsengimana knows the cranes should not be kept as pets, so he wants to help them to live free in the wild again.
• Dr. Nsengimana works with other people to help the cranes.
• He talks with kids, so they can learn about how cranes should live in the wild.
• He wrote a book about cranes, too.
• He works with many people to help the cranes.

Ask students to talk about why Dr. Nsengimana would want to write about cranes and talk with kids about cranes. Lead them to understand that the more people know about the cranes, the more they may want to help them.

ELABORATE
Extend Your Thinking
As a class, discuss how teamwork helps people protect cranes in Rwanda. Then display the image of ants on the back cover of the magazine. Discuss what the ants are doing and how teamwork helps them get the job done. Inform students that cooperation is an essential part of nature. Many jobs are too big for one person or one animal to finish alone. Provide an assortment of magazines. Instruct students to look through the magazines to find a photo of people or animals working together. Invite students to show and tell about their pictures in small groups.

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

• What does Dr. Nsengimana do to help the cranes?
• How does Dr. Nsengimana work with others?
COLORFUL CRANE

Color the crane.

Answer the questions.

1. What are cranes?

2. Where should cranes live?

3. Why do some cranes need help?
Cut out the puzzle pieces.

Work with a partner to put the pieces in the right order.

Then talk about how you worked together.
**Young Explorer - Scout**

**ANSWER KEY**

**Dogs Differ**

**Language Arts: Adjective Word Search, page 5**
Students should draw lines from each word to the dog it describes. Students should find and circle the following words in the puzzle: big, short, small, tall.

**Science: Dogs are Different, page 6**
Students should circle the correct answers.

1. Jake  
2. Jake  
3. Rosie  
4. Rosie

**Ready for Weather**

**Language Arts: Weather Words page 9**
Students should match the words and pictures:
- snowy > snowy weather symbol
- stormy > stormy weather symbol
- sunny > sunny weather symbol
- windy > windy weather symbol

**Science: Weather Wise, page 10**
Students should draw today’s weather and then draw what to wear in today’s weather.

**Saving Cranes**

**Language Arts: Colorful Cranes, page 13**
Students should color the crane and answer the questions. (sample answers; students responses may vary)
1. Cranes are big birds.  
2. Cranes should live in the wild.  
3. Some cranes are sold as pets.

**Learning Framework: Collaboration, page 14**
Students should cut out the puzzle pieces and work with a partner to put the puzzle pieces in the right order. Then students should talk about how they worked together.