

Name: _____

Due Date: Tuesday Jan. 18th

Antarctica – Frozen Desert

Monday – (In class) Read & complete 8 multiple choice.

Tuesday – Edit Mr. Meyer’s sample (In Class) / Create a graphic organizer for a narrative story about Antarctica (see Mr. Meyer’s examples).

MUST USE 😊

Wed. - Friday – Write your own 5-8 paragraph narrative about an adventure in Antarctica. Please use at least 3 facts from the originally story within your narrative. Have fun, be creative!

DUE TUESDAY Jan. 18th – first thing in AM

Antarctica: Frozen Desert

by Elise Forier

Antarctica is the coldest, windiest, driest place on Earth, covered by thick sheets of blue-white ice and surrounded by fierce, freezing seas.

More than 2,000 years ago, early Greek geographers wrote about a giant continent at the bottom of the world. Although no one had actually seen it, they called it *Anti-Arktikos*, or “opposite of the Arctic.” Centuries passed, and no one found this “great southern continent.” In the 1800s, explorers finally reached the legendary land. Among them was American sea captain Nathaniel Palmer, who sighted Antarctica from his ship.

Most of Antarctica is a desert.¹ This may seem strange, because we often think of deserts as hot places filled with sand. Almost all of Antarctica is covered with snow and ice, and the average annual temperature is far below freezing. But on the whole, Antarctica receives very little precipitation (rain or snow), and this is what makes it a desert.

Plants and animals that live in Antarctica have to be tough. A few kinds of plants—some mosses, for example—grow in the 2 percent of Antarctic land that is free of ice. Some grow only during the summer months and only on the warmer parts of the continent. Animals that survive year-round on the mainland are small and stay close to the ground—tiny insects such as mites, and microscopic worms. (Penguins and seals live on Antarctica only part of the year, during breeding seasons.)

Some early visitors to the continent were hunters. Although Antarctica is a harsh, nearly empty land, the seas surrounding it are rich with marine life. Six species of seals, more than twelve species of birds (including penguins), and many whales live and breed near Antarctica. (Penguins and seals breed on the continent, its islands, and the ice that surrounds some parts of it.) Throughout the 1800s, whale and seal hunters sailed to the Antarctic oceans by the hundreds. The hunters sold sealskins and whale and penguin blubber. (Blubber is the thick layer of fat below the skin of marine animals.) So many seals were killed that several species almost became extinct. Today, Antarctic seals are protected by international agreement, and their populations have increased again.



Think Aloud

¹The main idea of this paragraph is that Antarctica is a desert. I wonder why the author calls it that. The next sentences answer my question: Any place that receives very little rain or snow is called a desert.

Think Aloud

²At first I thought Antarctica was one giant block of ice where no people or animals can live and no plants can grow. Then I found out that many people live and work in Antarctica to study what this place is like.

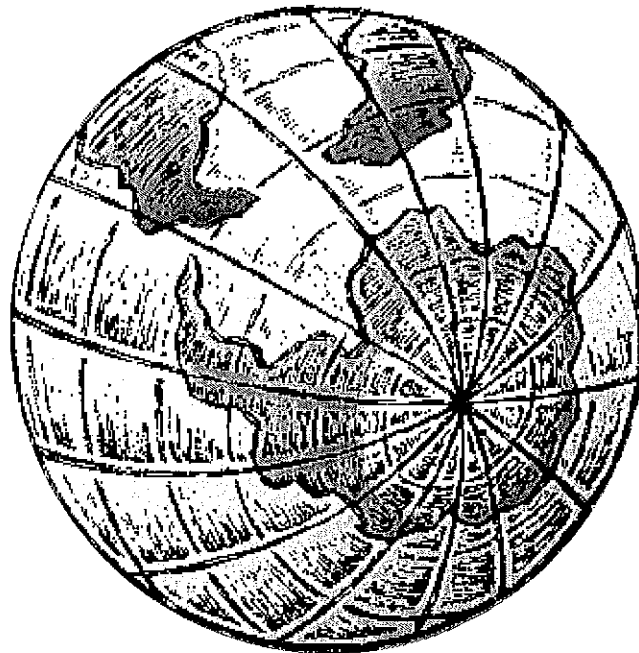
Genre Study

Nonfiction/ Expository: I notice that the author uses facts and numbers to give information about the topic. She tells about the number of species of seals and birds. The author also defines certain words.

Other people to visit Antarctica included explorers, scientists, and adventurers. Explorers rushed to claim pieces of Antarctica for their nations. In the interests of preserving the land and avoiding war, the international Antarctic Treaty was signed in 1959. It ensures that Antarctica will remain a peaceful place and will be protected from harmful activities.

More than 3,000 people from around the world—scientists and people who help the scientists—work in Antarctica today.² It is not a very easy place to live, but it is a perfect laboratory for scientific study. Astronomers like the cold, clean, dry air because it allows their telescopes to see clearly into deep space. Biologists study life on and around Antarctica to learn about how animals and plants adapt to extreme temperatures and harsh conditions. Geologists dig in Antarctica to find out what the land was like millions of years ago. Glaciologists (scientists who study the great masses of ice called glaciers) drill in the ice to trace climate changes throughout the ages. Some scientists study animals and plants on Antarctica to find out more about what life might be like on other planets.

With its huge icebergs, blue and silver landscape, whistling winds, and chilly seas, Antarctica can seem like another planet. The land and its icy cover have been compared with the Moon, Mars, and Jupiter's moon, Europa. Possibly no place on Earth is stranger or wilder—or more beautiful—than Antarctica. Certainly, there is no other place we know of that is quite like it.



READING

A.2.3.1

1. Plants and animals in Antarctica have to be tough because of
- A hunters and scientists.
 - B large populations of people.
 - C too much rain during the year.
 - D very cold weather conditions.

A.2.4.1

2. Which best describes the main idea of the passage?
- A Hunters caused much of the marine life in Antarctica to disappear.
 - B Antarctica's climate makes it an unusual continent.
 - C Three thousand people live in Antarctica today.
 - D Geologists in Antarctica dig for clues from the past.

A.2.4.1

3. How is Antarctica similar to other deserts?
- A It receives very little moisture.
 - B The average temperature is below freezing.
 - C Sand covers most of the continent.
 - D It has weather conditions that keep changing.

B.3.1.1

4. Which of these is an opinion?
- A "Some early visitors to the continent were hunters."
 - B "Possibly no place on Earth is stranger or wilder ..."
 - C "... the international Antarctic Treaty was signed in 1959."
 - D "Six species of seals, more than 12 species of birds ... live near Antarctica."

READING

A.2.4.1

5. According to the passage, who reached Antarctica first?
- A scientists
 - B geographers
 - C explorers
 - D hunters

A.2.4.1

6. According to the passage, many scientists are drawn to Antarctica because
- A they can study frozen plants and animals.
 - B they enjoy the hunting and fishing there.
 - C it is an excellent laboratory.
 - D it is an easy place to live.

A.2.4.1

7. Which sentence best supports the main idea of the passage?
- A "... Antarctica can seem like another planet."
 - B "Penguins and seals live on Antarctica only part of the year."
 - C "Glaciologists ... drill in the ice to trace climate changes throughout the ages."
 - D "More than 3,000 people from around the world ... work in Antarctica today."

A.2.3.1

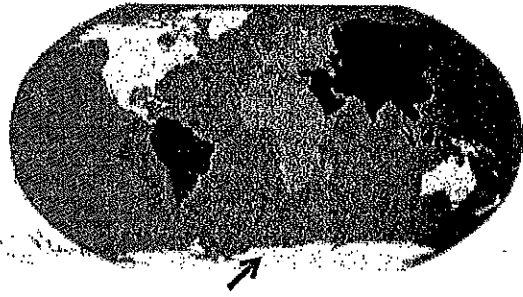
8. The great number of hunters traveling to Antarctica in the 1800s indicates that
- A few animals used to live in Antarctica.
 - B Antarctica used to have a hot climate.
 - C Antarctica used to be overpopulated with people.
 - D many people used to want sealskins and animal blubber.

Antarctica

All About the Coldest Place on Earth

Learn more at www.sciencekids.co.nz

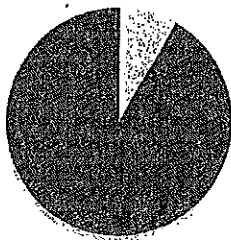
Antarctica is the coldest place on our planet. It is covered in snow and ice all year long. Because it is located at the bottom of our planet, the seasons and daylight patterns are very different. It is winter time in June. There are only 2 hours of daylight during winter. Then it turns dark again.



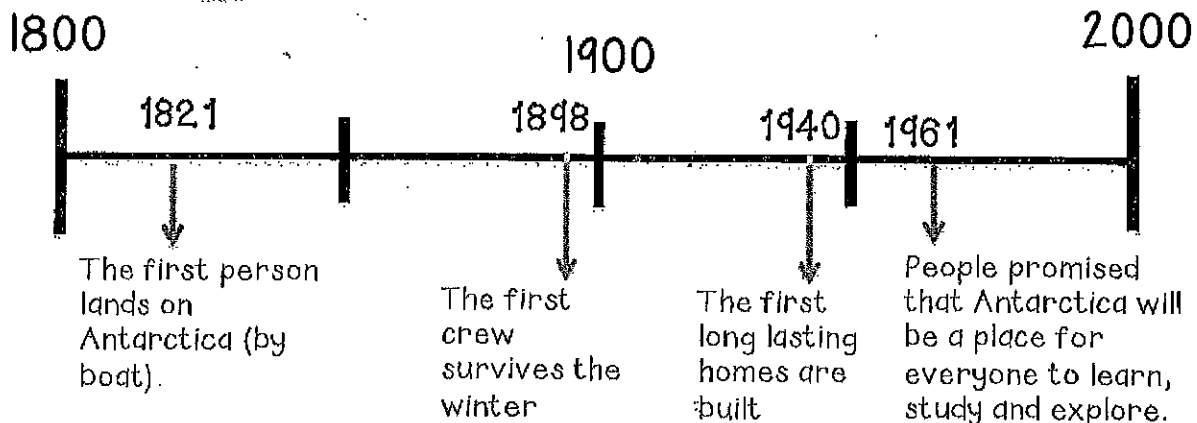
Antarctica is covered in snow and ice.

Very few people have been to Antarctica. There are heavy sharp blocks of ice floating around the land. The ice can break and destroy the ships. Antarctica is also a cold and windy place. Many people have died while visiting.

Hours of Daylight in June



- Hours of Daylight
- Hours of Darkness

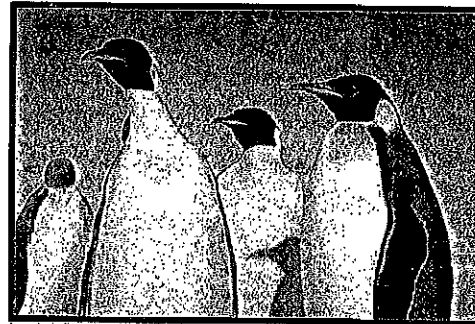


Penguins

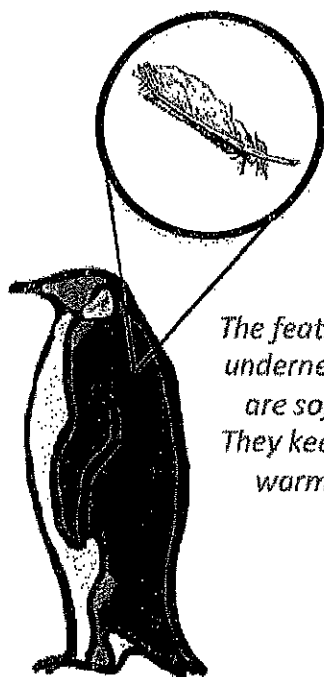
All About Emperor Penguins



Emperor Penguins are amazing birds. Both the adult males and females are about four feet tall. They can weigh between 50 to 100 pounds. This makes them the largest and heaviest penguins on earth. Emperor penguins cannot fly. They have stiff flat wings and a smooth curved body. This works best for swimming.



These Emperor Penguins live in Antarctica.



The feathers underneath are soft. They keep it warm.

An Emperor Penguin's feathers are called its *plumage*. Here are some facts about their feathers:

- They have 100 feathers for every square inch.
- The top layer of feathers are firm and slick. These feathers keep them dry.
- The lower layers of feathers are soft. These feathers are called down. They keep them warm.

Penguin Encounter

There is an exhibit of 300 penguins at Sea World in San Diego, California. It is called Penguin Encounter.

The lights in this display copy the natural light of Antarctica. This means it is dark most of the day during the summer. You can take a tour to learn more about penguins and meet one face to face.



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Narrative Plan

EXCITING BEGINNING (INTRO) :

- RESEARCH TEAM STUCK IN BLIZZARD
- WILL THEY SURVIVE THE NIGHT / POLAR BEAR SEEN LURRING AROUND (FORESHADOWING)

SETTING DESCRIPTION (5 SENSES)

- * ANTARCTICA
- * TOUCH : Frosty freezing fingers of death
- * TASTE : Fresh clean air "taste"
- * HEAR : Detect an empty silence
- * SMELL : burning embers from camp fire
- * SEE : Endless horizons / wall of snow

RISING ACTION / LEADS TO PROBLEM (CLIMAX)

- * Research team studying glaciers
- * Snowmobile breaks down
- * Storm comes / all supplies are lost
- * One volunteer goes out into storm to save team / find help
↳ polar bear / falls in ice (climax)

FALLING ACTION / SOLUTION = HOW IS PROBLEM FIXED

- * Finds old research base / calls for help
- * Helicopter comes in to save team
- * In old research base that is discovered, team find all kinds of great data to make a report

REFLECTION / WHAT WAS LEARNED / POSE A QUESTION

- * Research scientist records in notebook what it took to survive. w
- * What would you do to stay alive and save your team?

* DIALOGUE
* STRONG VOCAB.

* FIGURATIVE LANGUAGE
* SHOW DON'T TELL

Graphic Organizer

Model

Antarctica

Example

The plane banked left and dropped out of the air with a sudden lurch. I was thrown into the window of twin turbine aircraft. My insides felt like they were in a blender. The pilot yelled, "Hold on, we are almost there!" as sweat ran down his face. Finally, after what seemed an eternity, the plane greeted the runway. I made to Antarctica. My research team was here to study and collect samples on some local glaciers. Little did I know, the real danger was just beginning.

As I stepped off the ice coated plane, frosty freezing fingers of death swirled around my face. Despite the freeze cold wind, I can taste what real fresh air is supposed to taste like. I was so much cleaner than the city air I was used to. As my research team walked to the command post, my ears detected an empty silence. We were truly alone out here in the frozen desert. The sights of endless horizons filled my view. "Let's get moving!" I barked over the howling wind. I knew I had to

remain strong and confidence for my team. It was time to head out into the unknown. I hoped our team could find and collect the needed data. Our small research company needed something big in order to stay in business.

I lead our team out into the sub-zero temperatures. Little dots on the horizon turned out to be penguins and seals. Me and other glaciologists needed to collect samples from the glacier by drilling deep in the heart of the monster. Once we had the needed data we could finally try to understand if global warming was effecting the last remaining glaciers. We needed conclusive proof.

After a long day of work we were as weary as an Olympic triathlon competitor. As I helped the team settle in for the night, a sea of stars swim over the night sky. It was so clear without the light pollution from the city. The comforting smell of burning embers helped me relax in my sleeping back. The next moment I was asleep.

However, the peace did not last long. I heard Troy's voice shake with fear as he tried to wake my exhausted body. I unzipped my tent flap just in time to see a wall of snow moving straight for our camp site. Fight or flight. I would fight to save my team. I gathered everyone together and we hunkered down all holding onto each other. The storm was a beast. We lost all our supplies, radio equipment, snowmobiles, food, and most of all the entire data collection for the day was gone. Now our very lives hung in the balance.

"There is no question about it,"

... cliff hanger !!
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