

Penguin Web-quest

PART 1

1. List 3 reasons why penguins are considered birds.

They have feathers, they lay eggs, and they are warm blooded.

2. List some places in the world where penguins live.

Antarctica, South America, Africa, Australia, and New Zealand.

- 3. In what 2 ways do penguins use their flippers? **1.Penguins use their flippers to swim.**
 - 2. Penguins use their flippers to dive.

4. How have penguins adapted to their habitat?

Penguins have waterproof feathers to keep them dry when swimming. Penguins have a thick layer of down and blubber underneath their feathers that keep them warm.

5. What is protective coloration?

Penguins have a black back and a white belly. When a penguin is swimming in the water, a predator cannot see it because of its white belly. When the predator looks up through the water, the sun shining down makes all of the water appear white or bright, causing the penguin to blend in. Conversely, when a penguin is floating, its black head and back cause it to blend in with the ocean, which appears black. This makes it difficult for penguins to be seen from either direction while in the water.

6. What 3 ways do penguins move on land? Which is their best form of movement?

Penguins walk, jump, or slide over land. Jumping can be considered their best form of movement. Penguin Web-quest continued

7. What 4 ways does a male penguin let a female know that he is interested in her?

1.The male will flap his flippers.

- 2. The male will puff out his breast feathers.
- 3. The male will arch his neck.
- 4. The male will make loud braying sounds.
- 8. What are baby penguins called?

Chicks

9. What is a predator?

A predator is an animal that eats another animal for food.

10. Name 5 predators of penguins.

Skuas, sheathbills, gulls, petrels, sea leopards, killer whales, fur seals, seal lions, and sharks are some predators of penguins. 11. How have humans threatened the well-being of penguins?

Humans have hunted penguins for the oil in their bodies. Oil spills and global warming have also posed severe threats and dangers to penguins.

12. Who first discovered and named penguins? What bird did they name the penguins after?

Spanish explorers first discovered penguins and named them after a bird called the Great Auk.

PART 2

13. Which hemisphere has no penguins living in the wild? Which continents are in this hemisphere?

The Northern Hemisphere does not have any penguins living in the wild. North America, Europe, and Asia do not have any penguins living in the wild.

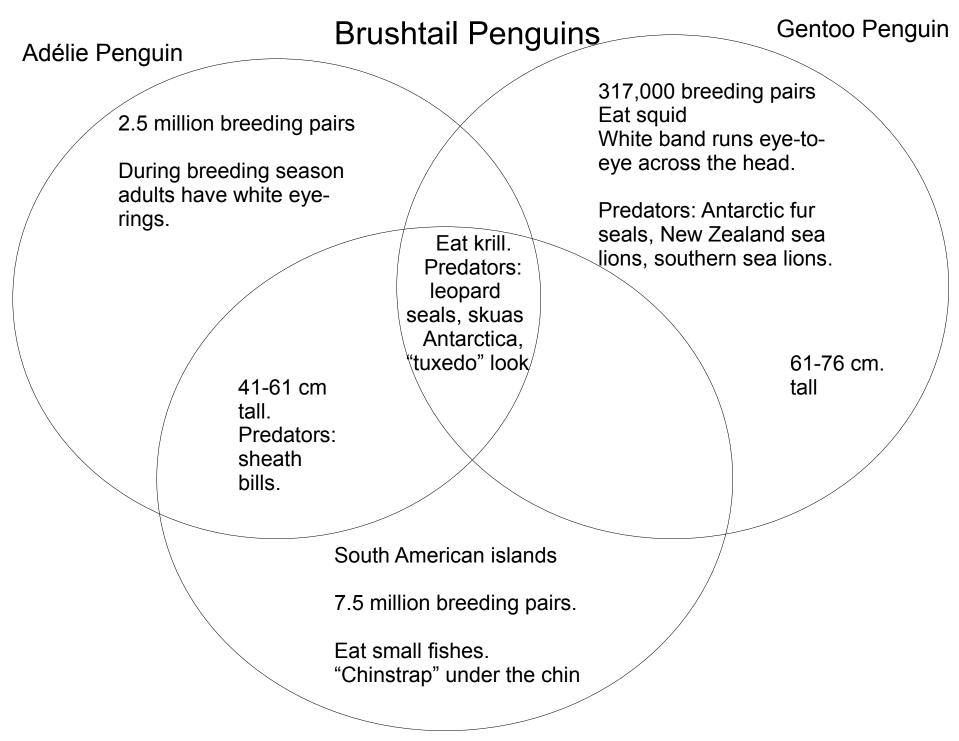
Penguin Web-quest continued

14. Name the 2 continents that have more than 5 different kinds of penguins living on them.

South America and Antarctica have more than 5 different kinds of penguins living on them.

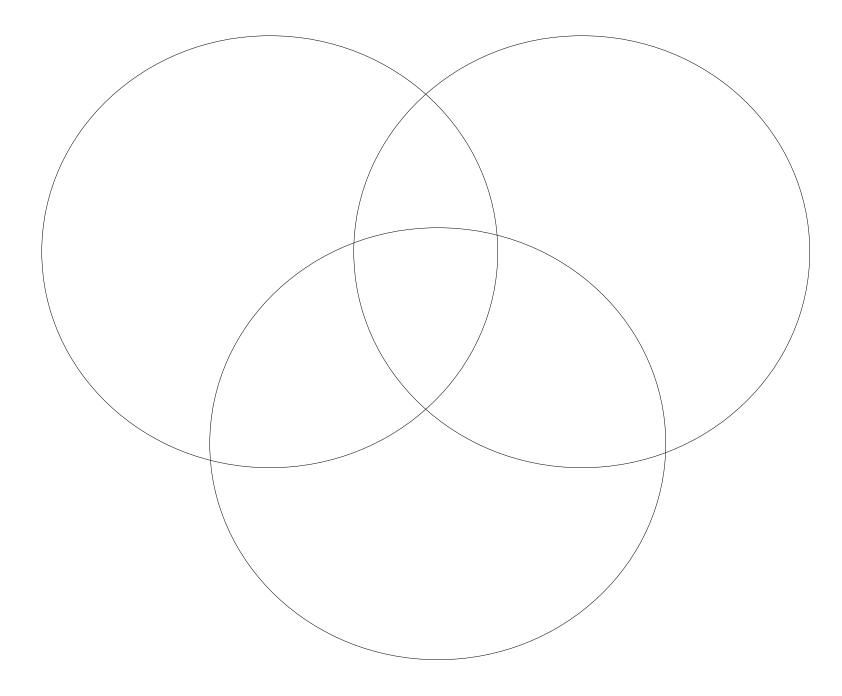
15. Even though New Zealand does not belong to a continent, they have 6 types of penguins living there. List the 6 types of penguins.

Little Penguins, Fiordland Penguins, Snares Island Penguins, Erect –crested Penguins, Rockhopper Penguins, and Yellow eyed Penguins live on the islands of New Zealand. On this page write notes or questions you may have for the researchers.



Chinstrap Penguin

Comparing and Contrasting Penguins Venn Diagram



Penguins and Flying Birds

Directions: Create an animal or bird that lives in water and on land. Think about the types of adaptations your animal/bird needs to survive. Draw your animal/bird on the page below.

Allow the students to use their imagination. Accept any reasonable answer. Answers will vary. Write a paragraph about describing the animal/bird that you have just drawn. Make sure to describe its adaptations.

Allow the students to use their imagination. Accept any reasonable answer. Answers will vary. Weather and Climate Effect on Penguins (Global Warming)

Write down your data and observations on this page.

Fill out information based on science experiment findings. Answers may vary.

Temperature

Bottle	Starting temperature	Final temperature	Change in temperature
No baking soda			
No baking soda			
2 tsp.			
4 tsp.			
8 tsp.			

Amount of Baking Soda vs. Temperature

Baking Soda

Weather and Climate Effect on Penguins (Global Warming)

Directions: Complete the following questions based on the science experiment you did in class.

1. How is the change in temperature in sunlight related to the amount of CO_2 in the bottles?

2. How did the temperature change of the two control bottles compared to the temperature change in the CO_2 bottles?

3. Which bottle's temperature changed the most?

4. Which bottle's temperature changed the least?

5. How do you think this science experiment is related to global warming?

6. How do you think the change in temperature on Earth affects the ice caps?

Fill out information based on science experiment findings. Answers may vary.

What Can I Do to Reduce My Carbon Footprint?

Directions: Answer the questions using complete sentences.

1. What is your carbon footprint?

Your carbon footprint is the total amount of greenhouse gases you emit daily through your actions and activities.

2. What are some daily activities that your carbon footprint comes from?

Using a screen saver on the computer, turning on the lights, taking a bath, and riding in a car or bus to school.

3. What are three things you can do to reduce your carbon footprint?

Take a shower instead of a bath, turn off the light in a room when you are finished using it, ride your bicycle, unplug electronics when you're not using them, recycle, and turn your computer off when you are finished using it. 4. What can you do with your family to reduce your carbon footprint?

Recycle, take family bicycle rides, plant trees, use compact fluorescent light bulbs, use energy star electronic equipment, turn down heating and air conditioning in your home, use a compost pile in your yard.

5. What can your class do as a group to help the Earth?

Recycle paper that you use, bring snacks in reusable containers, participate in a beach/park clean up. At the end of the day make sure the blinds are closed, windows are closed, computers are turned off, and any faucets are off.

6. What is global warming?

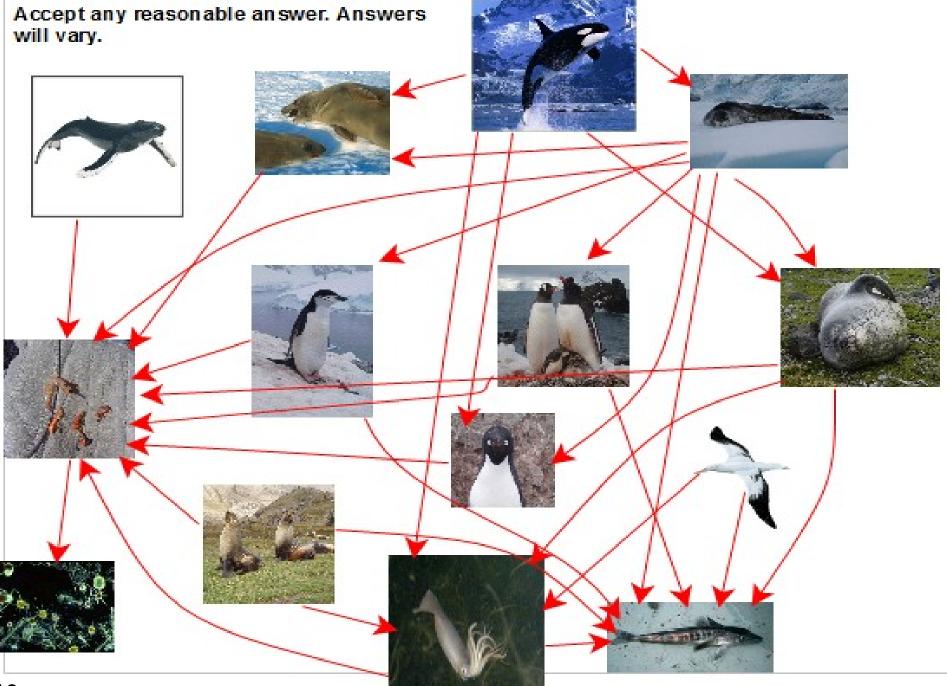
Global warming is a gradual increase in land and water on Earth.

7. How does global warming and your carbon footprint affect the penguins in Antarctica?

The size of your carbon footprint affects global warming, so the bigger your carbon footprint, the more you are contributing to global warming. Because of global warming, the Earth is heating up, which is warming the ocean and melting the polar ice caps where the penguins and other animals live.

My Antarctic Food Web

Use the following pages to draw and label the Antarctic animals.



Oil Spills in the Antarctic

Procedure:

- 1. Fill one end of the pan with sand, creating a small beach about one fourth the length of the pan and about 2 cm deep.
- 2. Fill the remaining portion of the pan with water; reform the "beach", if necessary.
- 3. At the end of the pan opposite the beach area, dip your finger in and out of the water once every few seconds to create waves.
- 4. Place the piece of fur and the feather into the pan. Predict what might happen when oil is added to this environment. Before oil is added, discuss with your team methods of cleaning up an oil spill with the materials provided.
- 5. Add two tablespoons vegetable oil to the environment and onto the fur and feather.
- 6. As the oil spill spreads out, stick your finger in the center. Observe what happens when your finger is removed.
- 7. Put two drops of liquid detergent on part of the oil spill. Observe what happens.
- 8. Use the wooden toothpicks, cotton ball, paper towel, and dropper to recover as much oil as possible. Use tweezers to handle the paper and cotton. Write down any observations.
- 9. Clean the feather and fur. Allow to dry overnight. Test for cleanliness. Record observations.

Observations:

1. What happened when you put your finger in the oil?

2. What happened when you put liquid detergent on part of the oil spill?

3. What was your strategy for cleaning up the oil?

4. Which tool worked the best for cleaning up the oil? (toothpicks, cotton ball, paper towel, and dropper) Why?

Fill out information based on science experiment findings. Answers may vary.

Conclusion:

1. What are some ways to prevent oil spills? People need to be more careful so they don't make mistakes, people need to monitor equipment and take better care of it in order to make sure oil spills don't happen. We can also try to use less oil.

2. What effect do you think wind and waves have on cleaning up an oil spill? Wind and waves make it much more difficult to clean up an oil spill. They also help spread the oil farther out into the ocean faster.

3. How does oil affect penguins' feathers? Oil makes penguins' feathers less waterproof and it also lowers the amount of insulation they have. This allows the cold to get in the penguins and give them hypothermia.

4. How does oil affect animal fur?

An aquatic animal's fur traps air to help keep it warm. Oiled fur can't trap air, which keeps the animal from staying warm and being able to float. When animals clean themselves that eat the oil which makes them sick. On this page write notes or questions you may have for the researchers.

Mr. Popper's Penguins	Chapter 2- The Voice in the Air	
Directions: Provide a definition for the vocabulary in your own words. Use complete sentences when answering the comprehension questions.	Vocabulary: spectacles (p.10) eyeglasses	
Chapter 1- Stillwater Vocabulary: Absent-minded (p.5) Forgetful, distracted, inattentive	1. According to the book, which animal lives in the North Pole? Polar bears.	
Expedition (p.6) Journey, voyage, mission, trip	 A group of penguins shove one penguin off the ice bank to see if it is safe to go in the water. Write about a time when you used the buddy system. 	
Comprehension: 1. Mr. Popper is a dreamer. What countries would you want to visit? Answer will vary.	Answers will vary, accept any reasonable answer.	
2. What did Mr. Popper wish he was, instead of a painter? A scientist.		
3. Why does Mrs. Popper say, "No more roast beef, no more ice cream, not even on Sundays"? (p. 8) Mrs. Popper says this because the painting season is over and Mr. Popper will not be working again until the spring.	 What do you think the surprise is from Admiral Drake? Answers will vary, accept any reasonable answer. 	

Chapter 3- Out of the Antarctic

Vocabulary: meekly (p.16)- gently, mildly, kindly

pompous (p.19)-exaggerated self-importance

1. What is delivered to Mr. Popper's house?

A box with a penguin in it.

2. Based on the description, which type of penguin is at the Popper house?

An Adelie penguin is at the Popper house.

3. What did Mr. Popper think the bathroom tile reminded the penguin of?

He thought it reminded the penguin of ice and snow at the South Pole.

4. How did the penguin get his name? The penguin was tobogganing in the bathtub and was saying "Gook". Mr. Popper said it sounded like he was saying "Cook", so they decided to call him Captain Cook.

Chapter 4- Captain Cook

1. Who was Captain Cook named after?

Captain Cook was named after an English explorer.

2. What did Captain Cook do with the goldfish?

Captain Cook ate the goldfish.

3. How did Captain Cook respond to Mrs. Popper spanking him?

Captain Cook went out of the room and into the kitchen where he tried to hide in the refrigerator.

4. What does Mr. Popper give Captain Cook to make a nest out of? From what you have studied, is this really what penguins make nests from?

Mr. Popper gives him ice cubes.

Chapter 5- Troubles with a Penguin Vocabulary:

ice box (p32)-refrigerator

ventilating (p32)-**expose to cool or cold air to** freshen; creating an opening to allow air to pass through

1. What did the penguin do when he was playing with the jigsaw puzzle?

He ate a piece of the puzzle. Now he watches the kids play with the puzzle and leaves it alone.

2. What scared the serviceman?

Captain Cook pecked at him and surprised him.

3. How much did it cost Mr. Popper to get the refrigerator fixed? Did that seem like a lot of money to Mr. Popper?

It cost him \$10 to get the refrigerator fixed. Mr. Popper regretted that it cost so much because he could have used it for food for his family.

4. How did Captain Cook get out of the refrigerator? **He pecked at the inside handle with his beak.**

Chapter 6- More Troubles

Vocabulary: sternly (p39)-in a serious or severe manner

municipal (p40)-controlled or owned by the government of a city or a town

1. What did the policeman think was in the Poppers' house?

He thought it might be a lion or a giant parrot.

2. Who did Mr. Popper call and why?

Mr. Popper called City Hall to see if he needed a license for Captain Cook.

3. What did Mr. Popper do when his phone call was switched over to the County Building?

Mr. Popper hung up the phone.

4. Based on what you have learned about penguins, do you think Captain Cook would enjoy living in the ice box? Why or why not?

Answers will vary, accept answer if in complete sentences.

Chapter 7- Captain Cook Builds a Nest

1. Where was Captain Cook hiding objects that he picked up around the house?

He was hiding them in the refrigerator.

2. Name 5 things that Captain Cook collected for his nest. Any five of the following: Two spools of thread, one white chess bishop, six jigsaw puzzle pieces, a teaspoon, closed box of safety matches, a radish, two pennies, a nickel, a golf ball, two pencil stubs, one bent playing card, an ash tray, five hairpins, an olive, two dominoes, a sock, a nail file, four buttons, a telephone slug, seven marbles, a tiny doll's chair, five checker pieces, a graham cracker, a parches cup, an eraser, a door key, a button hook, a piece of tinfoil, half of a lemon, the head of a china doll, Mr. Popper's pipe, a ginger ale cap, an ink bottle cork, two screws, a belt buckle, six beads, five building blocks, a darning egg, a bone, a small harmonica, a lollipop, two toothpaste lids, and a red notebook.

3. What do you think Mr. Popper needed the yards of clothesline for?

Answers will vary, let the students use their imagination.

4. A synonym is a word that has the same meaning has another word. For example a synonym for *small* is *tiny*. Find a synonym for each of the following words.

- 1. occupied (p.44) _busy_
- 2. a maid (p.45) housekeeper_
- 3. amazing (p.46) astonishment____

4. candy (p.48) _lollipop_

5. a table light (p.49)_lamp_

Chapter 8- Penguin's Promenade

Vocabulary: derby (p51)-**a stiff felt hat**

stroll (p50)-a walk

extinct (p54)-no longer existing or living

1. How did Captain Cook get down the steps?

He tobogganed down the steps on his belly.

2. What did Mrs. Callahan think Captain Cook was?

Anteater or goose.

3. Who jumped out of the car to see Mr. Popper?

A reporter and a camera man jumped out of the car.

4. Where did Mr. Popper and Captain Cook go to hide from the crowd?

They went into the barbershop.

Chapter 9- In the Barber Shop

Vocabulary: elderly (p.57)- **approaching old age, rather old**

spectacle (p.57)- a public performance or display

humble (p.61)- modesty in behavior or attitude, not arrogant or prideful

1. What caused Mr. Popper to slide (toboggan) down the stairs?

Captain Cook went tobogganing down the stairs and was tied to Mr. Popper by the clothesline. The clothesline was tied to Mr. Popper's wrist and it pulled him down the stairs.

Chapter 10- Shadows

1. What newspaper first had the story and photo of Mr. Popper and Captain Cook in it?

The Morning Chronicle was the first newspaper to have the story.

2. Who is Greta? Where did she come from? Greta is a penguin from the aquarium at Mammoth City. 3. What illness does the curator think Great is suffering from?

The curator thinks she is suffering from loneliness.

Chapter 11- Greta

1. What did Mr. Popper do in order to tell the penguins apart?

Mr. Popper painted "CAPT. COOK" in white on the penguin's back and "Greta" on Greta's back.

2. What do the Poppers do to make the house cooler for the penguins?

They leave all the windows open in the house.

3. What did the Poppers do to stay warm? The Poppers wore their overcoats in the house all the time.

4. What was in the house when the Poppers woke up one morning?

There were large drifts of snow all over the house.

5. What happened to the water that Mr. Popper sprayed on the floors? **The next morning it was smooth ice.**

6. Who played in the living room on the ice? Captain Cook, Greta, Janie, and Bill.

Chapter 11- Greta

Draw a picture of your favorite part of this chapter.

Answers may vary. Let the students use their imagination to illustrate their favorite part of this book.

Chapter 12- More Mouths to Feed

1. How many eggs did Greta lay? She laid ten eggs in all.

2. Do you think it is possible in real life for a penguin to lay as many eggs as Greta? Why or why not? **Answers may vary, accept any reasonable answer that is in complete sentences.**

3. How did Mr. Popper keep the extra eggs warm? He put the eggs under hot water bottles and electric heating pads kept at penguin body temperature.

4. What were the names of the 10 chicks? Nelson, Columbus, Louisa, Jenny, Scott, Magellan, Adelina, Isabella, Ferdinand, and Victoria.

5. What did Mr. Popper dig a hole for in the cellar? **He made a swimming and diving pool for the penguins.**

6. Who liked leading the marching drills? Luisa the penguin liked leading the marching drills.

7. Why was Mr. Popper upset that spring was coming soon?

He dreaded the idea of leaving the penguins all day to go paint houses.

Chapter 13- Money Worries

Vocabulary: tidy (p81)-**neat, clean, orderly**

droll (p84)-amusingly odd or whimsically comical

1. What does Mr. Popper want to do with the penguins to make money?

He wants to train them and create an act to perform.

2. Why does Mr. Popper say that the penguins "already have a costume"?

Their black and white markings make them look like they are wearing an outfit already.

Chapter 14- Mr. Greenbaum

1. Which two penguins were at the end of the line when marching to the theater? What were they carrying?

Ferdinand and Luisa were at the end of the line carrying flags in their beaks.

2. Why did the bus driver kick Mr. Popper and the penguins off the bus?

He kicked them off of the bus because the passengers were complaining about being cold since the windows were open.

3. Why were there "twenty-four white-circled eyes" looking solemn if Mr. Popper has twelve penguins?

Each penguin has two eyes.

4. Place the following words in alphabetical order.

music, engineer, theater, sell, fare, train, money, downtown, performance, toboggan

downtown, engineer, fare, money, music, performance, sell, theater, train, toboggan

Chapter 15- Popper's Performing Penguins

Vocabulary: rehearse (p.93)- **to practice, in preparation for a public performance**

indulgence (p.93)-giving in, something granted as a favor or a privilege

Chapter 15- Popper's Performing Penguins

novelty (p.93)-something new and unusual

precision (p.94)- **being exact, accurate**

1. Why did the penguins get to rehearse on a real stage?

The Marvelous Marcos were unable to perform and Popper's Penguins performed for the audience instead.

2. Why do you think Mrs. Popper likes to play the piano with her gloves on?

She is used to practicing at home in the cellar where it is cold

3. Which act would you most like to watch? Why?

Answers may vary.

Check the capitalization and punctuation in the following sentences. Rewrite each one of the sentences correctly

1. mr greenbaum was the first to congratulate the poppers

Mr. Greenbaum was the first to congratulate the Poppers.

2. "which bird won who's ahead" shouted the audience

"Which bird won? Who's ahead?" shouted the audience.

3. ten of the birds now formed a semicircle as nelson and columbus put on a wild sparring contest

Ten of the birds now formed a semicircle as Nelson and Columbus put on a wild sparring contest.

4. is that all right mamma asked mr popper

"Is that all right, Mamma?" asked Mr. Popper.

Directions: Use complete sentences when answering the comprehension questions.

Chapter 16- On the Road

1. When the Poppers received their money, what did they pay for first? What did they pay second?

They first paid off the man who installed the freezing plant in the basemen. Second they paid the company that had been sending fresh fish.

2. How many taxicabs did the Poppers take? Why?

They took 2 taxicabs because they could not fit all 4 Poppers, 12 penguins, 8 suitcases and a pail of water and fresh fish for the penguins' lunch.

3. How many weeks of school did Janie and Bill have to miss while traveling for the show?

They had to miss 10 weeks of school.

4. How did the penguins mess up Monsieur Duval's act?

They went on the stage to watch Duval do his act, which made the audience laugh. Hearing the audience laugh made the Monsieur Duval lose his balance.

Chapter 17- Fame

1. How long were the lines to buy tickets for the Popper Performing Penguins?

The line was half a mile down the street.

2. Where did the penguins go from the basement?

They went into the orchestra pit.

3. Why didn't Mr. Popper and the penguins walk from the hotels to the theaters?

They looked like a parade when they were walking and traffic would get stopped up.

4. How did Mr. Popper get free shrimp for the penguins?

Mr. Popper wrote a testimonial saying "Popper's Performing Penguins thrive on Owens' Oceanic Shrimp."

5. Name 6 places that the Poppers' visited while performing their act.

Any six of the following: Seattle, Minneapolis, Milwaukee, Chicago, Detroit, Cleveland, Philadelphia, and Boston.

6. Where is Popper's Performing Penguins' last show? **The last show is in New York.**

Directions: Use complete sentences when answering the comprehension questions.

Chapter 18- April Winds

1. Why did Mr. Popper not like having the penguins on the roof?

It was not a safe place for them.

2. How many penguins did Mr. Swensen say his seals could eat?

He said they could eat 2 or 3 each.

3. What did the firemen put on the penguins? What did the policemen put on the seals?

The firemen put their helmets on the penguins and the policemen put their hats on the seals.

4. Why is Mr. Popper being arrested?

He is being arrested for coming into the theater and disturbing the peace.

Chapter 19- Admiral Drake

1. Why were the birds feeling uncomfortable in the jail?

They weren't getting much exercise and it was hot in the jail cell.

2. What day did Mr. Popper get released from jail? Who released him?

Mr. Popper and the penguins got released on Saturday because Admiral Drake came and paid his bail.

3. Why do the explorers prefer the South Pole?

They prefer the South Pole because penguins are there.

4. What do you think Mr. Popper should do with the penguins, send them to the North Pole with Admiral Drake or put them in the movies? Explain your answer.

Answers may vary, but make sure the students use complete sentences.

Chapter 20- Farewell, Mr. Popper

1. Give two of Mr. Popper's reasons for making his decision about the penguins.

There has been excitement, warm weather, and he feels sorry for the men in the North Pole. He is thinking of the penguins first, and that they deserve to live in a cold climate.

2. What does Mr. Popper want before the penguins go?

He wants a small movie made of the penguins performing in New York.

3. How long does Mr. Popper plan to be gone?

Mr. Popper plans to be gone for about 1-2 years.

4. If you were Mr. Popper, would you have left your family for two years to take care of your penguins in the North Pole?

Answers will vary. Make sure students use complete sentences and provide an explanation. Now that you have finished the novel <u>Mr.</u> <u>Popper's Penguins</u>, use this page to write notes or questions that you may have for the researchers.