



STUDYGUIDE

Alone Across the Arctic

by Pam Flowers with Ann Dixon

This study guide for students grades five through eight, offers extended learning activities for *Alone Across the Arctic: One Woman's Epic Journey by Dog Team* by Pam Flowers with Ann Dixon. For more information please visit www.pamflowers.com.



Have you ever wondered what it would be like to mush a dog team, live in the Arctic, or go on an expedition?

*Read the book *Alone Across the Arctic* to find out about Pam Flower's amazing 2500-mile expedition from Barrow, Alaska to Repulse Bay, Canada. Then do the following activities to learn more.*

Writing

- Make up a name of a lead dog for your dog team. In an acrostic style poem using the name, describe the dog. For example: SPEEDY

S—Silky P—Perky E—Energetic E—Egocentric D—Ditsy Y—Yappy

- Pam Flowers uses journaling to give the reader a sense of place and action. Keep a journal yourself for one week. Include temperature, weather conditions, anything unusual with the elements as well as how you felt as you moved through your activities.
- Write a letter or postcard to Pam Flowers telling her your favorite part of her story. Add anything else you might want to tell her, or ask about her trip or her life. Perhaps find out what project she is working on at the moment. Actually send it to her.
- Make up a song to sing along the trail to keep the dogs motivated and moving. Think about what really does motivate them and why they want to please. Put some of that into the song. [Try using the tune to “Jingle Bells”.]

Who, What, Where, When, Why:

- Who was number one lead dog in the story?
- What got Pam interested in the polar regions and in dog mushing?
- Where were Knud Rasmussen and Anarulunguaq from?
- When did Duggie and Anna lead the team across the Canadian border?
- Why did Pam use more than one sled? What were advantages and disadvantages of her sledding system?

Write an essay, poem, or song about one of the following topics:

- Pretend you were one of the dogs in the story. Think about something that happened in the book and retell it from the dog's point of view.
- Describe what Sojo looked like and why you think she didn't like to run in lead. Then tell how she felt when she was in lead. Was Sojo being a good team member when she took her turn in lead though she may not have wanted to?
- Describe what Duggie looked like and what his main job was in the team. What was the most important skill Duggie had that made him so useful on the journey?
- Describe what Anna looked like and why her position in the team changed. Do you think it mattered to Anna if she ran in lead? What was the worst thing that happened to Anna on the trip and how did she react?
- Pam's life of adventure started as a girl when she and her pet dog Lady went for walks together. Write a story about an adventure you had with an animal. For instance, write about hiking with your pet near home.
- Find someone you know who has driven a dog team or been to Alaska or the Arctic. Interview him/her and write that person's story.
- Make up a story about being a dog musher based on what you have learned about dogs, weather, and travel conditions in the book, *Alone Across the Arctic*.

Science

- Name four kinds of animals that live in the Arctic.
- Are there any birds in the Arctic?
- Name two kinds of fish that swim in arctic waters.
- Do penguins live in the Arctic? Do polar bears live in the Antarctic?
- What is hypothermia and why is it dangerous?
- How do seals swim in icy water without freezing to death?
- Why are there no trees in the arctic?
- Why did Pam have to melt snow to make water for her and her dogs?
- Why is it colder during the winter than during the summer in the Arctic?
- What is permafrost?



Where you live

- Name four kinds of animals that live in your area.
- Name two kinds of fish that swim in waters close to your home.
- Name three species of birds that live near your home. Do these birds migrate? If so, where do they go?
- What is hibernation and do animals in your area hibernate during the winter?

- What happens to leaves on trees when fall arrives?
- Does the water in nearby lakes freeze during the winter?
- Is it dark outside longer in the winter than in the summer in your town? What time does the sun rise/set?

Brain Buster!

Research how the earth orbits the sun and figure out why it is dark during most of the arctic winter and light during most of the summer.

Geography

- Where is Prudhoe Bay and what natural resource is found there?
- Which river flows north to the North Slope of Alaska? Why? Why is this different than most other rivers?
- The ship *Nechilik* has been sitting on the beach in the Arctic since 1957 but it has almost no snow on its deck. Why is there so little snow in the Arctic?
- Find out how the town of Gjoa Haven got its name. *Hint:* Read about a Norwegian explorer named Roald Amundsen and his 1903-06 Expedition through the Northwest Passage.

Where you live

- What natural resource is abundant close to your home?
- What is the longest river in your state or province?
- Is there a lake or river close to your home that is important to you for recreation? Do people try to keep that lake or river clean?
- How does the weather in the Arctic differ from the weather in your town?
- How did your town get its name?

Brain buster!

Where is Albert Bay and why was that location important to Pam and her dogs?

Math

This chart shows the number of miles Pam and her dogs traveled during her expedition—between communities, the number of days traveling, in storms or exploring and in towns. (They often explored and followed the coastline, therefore the miles were often much greater than air miles between communities.)

Communities	Distance	Travel Days	Storm/Explore Days	Days in town
Barrow – Prudhoe Bay	297	8	2	4
Prudhoe Bay – Kaktovik	133	5	1	2
Kaktovik – Tuktoyaktuk	343	12	3	1
Tuktoyaktuk – Paulatuk	325	12	1	3
Paulatuk – Coppermine	347	12	5	4
Coppermine – Bay Chimo	208	6	0	4
Bay Chimo – Gjoa Haven	362	16	1	178
Gjoa Haven – Pelly Bay	325	16	2	5
Pelly Bay – Repulse Bay	225	13	0	2

- How many years did Pam live in Alaska before she started her journey across the Arctic?
- How many dogs were on Pam's journey across the Arctic?
- Add the columns in the above chart and figure out how many days were spent traveling in storms or exploring, and in towns.
- How many days total did the entire journey take?
- Make a bar graph comparing the length of each segment of the journey.
- Pam used 1/2 gallon of fuel every day to melt snow into water. How many gallons of fuel did she use on this journey? (She did not use fuel in any town.)
- Each dog ate about 2 1/2 pounds of dog food each day. Excluding the time spent in Gjoa Haven, how many pounds of dog food did the team consume during their journey?
- How many hours of possible sunshine were there in each community that Pam and the dogs visited on the day they arrived? Remember the sun shines the same amount of time for the same date throughout the year so it doesn't matter which year you use. (Hint: Go to <http://oaa.usno.navy.mil/AA/data> or www.weather.com)
- Look at an atlas and figure out how many miles it is from your hometown to Talkeetna, Alaska.

Where you live:

- If you traveled 2500 miles from your hometown, where would you choose to go? List the states or provinces you would go through. Figure out the route you would take to get there and mark it on a map. It may be several types of transportation!
- On your 2500-mile journey, how many hours would it take you to complete the journey if you flew in a plane at 500 miles per hour? How many hours if you drove 5 mph? How many hours if you walked at 3 mph?
- Find a healthy recipe for dog biscuits and make a batch. Give them away at a local SPCA or dog shelter.
- Food for fuel: How many meals a day do you eat? If you ate one piece of cheese for breakfast every day for an entire week, how many pieces of cheese would you have eaten? If you ate two peanut butter sandwiches for lunch every day for an entire year, how many sandwiches would you have eaten? If you had three cookies for an afternoon snack and your dog ate one of them, how many cookies would you have left? If there

were 33 french fries in a bowl and you were supposed to share them with another person, would you? Hey! Is this really a math question? If you shared them equally how many french fries would you get?

Brain buster!

Now that you know how many hours it would take you to walk 2500 miles, can you figure out how many fortnights that is? If Queen Maud Gulf is approximately 62 fathoms deep, how many feet is that? If a dog weighs 3 stones and 64 drams, how many pounds does the dog weigh?

Art

- Draw a picture of a dogsled and label all the parts.
- Build a model dogsled using construction paper and glue or cardboard and glue or balsa wood and string.
- Think about a dog that you know and draw it wearing a harness. Label all the parts of the dog - head, feet, nose, whiskers, etc.
- Imagine a blizzard and paint a picture of Pam's camp during a blizzard. Be sure to show the sleds and dogs as well as the tent.
- Think of your favorite part of the book *Alone Across the Arctic* and build a diorama of that scene.

Where you live

- Draw a picture of your favorite animal that lives near you and its habitat.
- Draw a picture of the life of a Canada Goose, American robin, or Arctic tern in its natural habitat. Show its nest and include an egg and a hatched baby bird. If the nest is in a tree, thicket or on a rock, show that. Try to draw what one bird looks like when it is resting or feeding its babies and another bird as it is flying. Draw what the bird eats. On one side of your picture, draw a map of North America or the entire western hemisphere and show where the bird spends its summers and winters.
- Using markers, colored pencils, or paint make a picture of your favorite dog in the book. Why is he/she your favorite?

Other activities

- Invite a musher to visit and ask him/her to bring a sled and perhaps a dog for a demonstration. Have him/her tell about the sport, adventures he/she has had, and answer questions on a musher's life.
- On page 79 in the blue box, Pam describes how she dresses to stay dry and warm. Re-read this section and bring into class the same or similar types of clothing. Put them all on and talk about how it feels to be in so many layers. Is it hard to move around, etc.?
- Have a debate. Debate whether the lead dog or a team dog is the most important dog.
- Have a weight-pulling contest. Get a toy sled or piece of thick cardboard and place bags full of dirt or sand on it and see who can pull the most weight.

- Have a race. Divide your class up into teams and have each team build a sled out of cardboard. Use ropes for the gangline (look up gangline in *Alone Across the Arctic's* glossary). Plan a route through your schoolyard and see which team can complete the route in the shortest amount of time. Watch out! Teachers or principals disguised as bears or wolves might jump out and startle you!

The authors

A recipient of the Gold Medal from the Society of Woman Geographers (which also honors Amelia Earhart and Jane Goodall), **Pam Flowers** has completed numerous adventures (including the Iditarod Trail Sled Dog Race®) and was also named an “Outsider of the Year” by *Outside* magazine.



She has written many magazine articles on mushing and the Arctic. She and her sled dogs live in Talkeetna, Alaska.

Coauthor **Ann Dixon** has written five books, including the best-selling *Blueberry Shoe* and *The Sleeping Lady*. She is a full-time writer and lives with her family and their dog Blackie, a rescued stray mutt who loves to run, but refuses to pull a sled, in Willow, Alaska.

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