

Teaching Guide to *Shortcuts* by Jeff Harris

Introduction

Shortcuts by Jeff Harris is a beautifully illustrated, fact-packed page that makes learning fun. Each week, *Shortcuts'* multicultural cast (Juanita, K., Roland, Junior and James) offers facts, riddles, jokes and puzzles to help kids learn about science, geography, animals, food, history and holidays.

Each teaching guide provides ideas for expanding the lesson and creating discussion and learning activities for your students. The grade level for the guides is usually 3rd to 4th, but they can be adapted for use at other levels. The guides are broken down into four areas :

1. Questions for Discussion and Further Study

Designed to help students think and research, not just give one-word answers

2. Activity Ideas

Designed to allow students to be creative and teach themselves

3. Use the News

Designed to have students use the news in studying each topic

4. Quick Quiz

Designed to be adaptable to several grade levels, evaluate students' comprehension and build vocabulary and math skills

You might use the teaching guides in the following ways:

Questions for Discussion and Further Study: Engage the entire class by asking each question aloud and listing the students' answers on the board. Or have them use reference resources to give their own answers to the questions. Allow them to discuss other students' answers after they've researched the topics. Key words or phrases that can help students search for more information are italicized.

Activity Ideas: Give the students a time limit to research their projects, using library or study time. By having the students cite their resources you can check their work; or, alternatively, tell them which resource(s) you prefer them to use.

Use the News: These can be worked on individually but we suggest they work in groups to learn teamwork skills.

- **Quick Quiz:** We suggest you review the quizzes ahead of time and change the phrasing or difficulty level based on the students' abilities.

Shortcuts: A COLD, HARD LOOK AT THE TUNDRA

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Objective: After completing the exercises, students should have a better understanding of tundra.

Subject Areas: The following information about tundra will be discussed:

- Tundra climate change
- Observing life on the tundra
- The movie “Never Cry Wolf”

Evaluation: Students may be evaluated using the following point scale:

Four points: Information is accurate, organized, shows creative thought/use of materials

Three points: Information is accurate and organized

Two points: Information is mostly accurate; organization needs some work

One point: Significant inaccuracies; lacks organization

Topics for Discussion and Further Study

1. What kinds of insects live in the tundra? What do they do during the long winter?
2. Is climate change affecting the tundra?

Activity Ideas

- What photographs and informational videos can you find that will help you learn more about Arctic tundra? Here's a video to get you started:
<http://www.youtube.com/watch?v=gUw2N2RbBkM> As you watch the video, take notes on what you learn. Finally, make your own short quiz based on these notes. Trade quizzes to test your knowledge and compare what you and your classmates picked up about the tundra.
- To get an entertaining and educational look at life on the Arctic tundra, watch this Disney movie. It's called “Never Cry Wolf.” It's about a biologist who tries to live on the tundra and observe wolf behavior. He ends up learning more than he intended.

Use the News

- Most tundras are located in the far north, above the Arctic Circle. What places can you find as you read the newspaper that are located farther north than others? See who can find the northernmost location mentioned in the whole paper. You may need an atlas to help you judge its latitude and compare with other locations that your class reads about.

Answers to the Quiz

1.) b, 2.) b, 3.) a, 4.) d, 5.) b, 6.) d , 7.) permafrost, 8.) wind, 9.) 78 degrees, 10.) 980

Quick Quiz — Tundra

1. A lot of snow falls on the tundra each winter.
a. True b. False
2. Nearly _____ of our planet is tundra.
a. 10% b. 20% c. 50% d. 5%
3. Tundra is a fragile environment.
a. True b. False
4. Most of the tundra on our planet is located in _____.
a. South America b. the Antarctic c. the tropics d. the Arctic
5. The sun never sets in the tundra.
a. True b. False
6. Animals common to the tundra include _____.
a. caribou b. musk oxen c. lemmings d. all of the above

Vocabulary Comprehension

7. Tall trees don't grow on the tundra because their roots cannot penetrate into the _____.
8. Most of the plants in the tundra grow low to the ground to survive the powerful arctic _____.

Math Comprehension (subtraction, division, addition, fractions)

9. What is the difference in temperature between 50°F and -28°F?
10. If 2% of a 1,000-member herd of caribou died, how many would be left?