

# 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 3<sup>rd</sup> to 4<sup>th</sup>, 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'd 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: WARMING UP TO THE ICE AGE**

For release the week of: July 30, 2012

**Objective:** After completing the exercises, students should have a better understanding of the Ice Age.

**Subject Areas:** The following information about the Ice Age will be discussed:

- Could another ice age occur?
- How fast do they develop?
- What is the scientific evidence of past ice ages?

**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. How cold was it during the last ice age?
2. How fast could an ice age develop if another one were to occur?

## **Activity Ideas**

- The world was very different during the Ice Age. Could humans survive another? Could another ice age occur? Here's a link to some interesting information from NASA concerning this scary possibility: [http://science.nasa.gov/science-news/science-at-nasa/2004/05mar\\_arctic/](http://science.nasa.gov/science-news/science-at-nasa/2004/05mar_arctic/) . The information on this website is similar to the ideas behind the disaster movie “The Day After Tomorrow.”
- Why do scientists think that there ever was an Ice Age? What information do they use to determine this? Research and report on how scientists examine our world today, and make theories about ice ages from the past.

### **Use the News**

- What are “carbon taxes”? What do they have to do with global warming or cooling? You may have read about them in the newspaper. Research and write a brief explanation about carbon taxes.

## **Answers to the Quiz**

1.) b, 2.) c, 3.) a, 4.) a, 5.) a, 6.) b , 7.) epochs, 8.) core 9.) 6,000 ft. 10.) 100 degrees

## **Quick Quiz — The Ice Age**

1. During the height of the Ice Age, the ice sheets in the northern hemisphere were nearly 10,000 miles thick.  
a. True b. False
2. When capitalized, the term Ice Age usually refers to the \_\_\_\_\_ epoch.  
a. Jurassic b. Cretaceous c. Pleistocene d. Silurian
3. Some of the earliest ice ages were so severe that almost the entire Earth was covered with ice.  
a. True b. False
4. There were many giant \_\_\_\_\_ that lived during the Ice Age.  
a. mammals b. dinosaurs c. cavemen
5. The last ice age ended about 11,500 years ago.  
a. True b. False
6. During the last ice age, the sea level around the planet was \_\_\_\_\_ than it is today.  
a. the same b. lower c. higher

## **Vocabulary Comprehension**

7. Ice ages occur during periods known as “glacial \_\_\_\_\_.”
8. Some of the evidence for past ice ages is found in \_\_\_\_\_ samples taken from ice sheets in Antarctica and Greenland.

### **Math Comprehension (subtraction, division, addition, fractions)**

9. If an ice sheet 9,000 ft. thick melted by 5,000 ft., then refroze and rose 2,000 ft., how many feet thick would the ice sheet be?
10. How many degrees is it between 80 deg. F. and minus 20 deg. F.?