

# 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 Newspaper**

Designed to have students use the newspaper 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 Newspaper:** 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: THE WORLD OF WHEAT**

For release the week of: August 26, 2013

**Objective:** After completing the exercises, students should have a better understanding about wheat.

**Subject Areas:** The following information about wheat will be discussed:

- Structure of the kernel
- Wheat nutrition
- Farming and milling wheat

**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. If wheat is one of the world/s main food crops, what are the other crops? Where are they grown?
2. As a class, try to list as many foods made from wheat as possible.

## **Activity Ideas**

- Why is whole-wheat flour more nutritious than white flour? Draw a diagram of a wheat kernel. Label the parts. Write a brief explanation of where the nutrients are located.
- How does wheat get from the seed to the bag of flour? Research and report on each step of the farming and milling process. Include a simple diagram of the sequence of events.

## **Use the Newspaper**

- ❖ Wheat is a commodity that is sold for profit. Look in the Business/Stock Exchange section of the newspaper to determine the price per bushel wheat is currently selling for. Research how big a bushel is.

## **Answers to the Quiz**

1.) a, 2.) c, 3.) b, 4.) d, 5.) a, 6.) a, 7.) gluten, 8.) threshing, 9.) 12 tons, 10.) 110 cm

### **Quick Quiz – Wheat**

1. Wheat is grown on more of the earth's farmland than any other food crop.  
a. True                      b. False
2. Farmers around the world harvest about 595 million \_\_\_\_\_ of wheat every year.  
a. ounces                      b. pounds  
c. tons                          d. liters
3. White flour is made using only white wheat.  
a. True                          b. False
4. Nearly all of the world's wheat is eaten by humans in the form of \_\_\_\_\_.  
a. cereal                        b. cake  
c. chips                          d. bread
5. Wheat is a type of grass.  
a. True                          b. False
6. Gluten causes bread made from wheat flour to be \_\_\_\_\_ than breads made from other grains.  
a. lighter                        b. heavier  
c. sweeter                       d. healthier

### **Vocabulary Comprehension**

7. Wheat contains a protein called \_\_\_\_\_.
8. The process of removing the wheat grains from the stalk is called \_\_\_\_\_.

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

9. If a farmer can grow 8 tons of wheat in two years, how much can she grow in three years?
10. If wheat plants grow to be 60 to 160 cm tall, how high is a plant half way between 60 and 160 cm?