

# 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 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 MENTAL EXERCISE ON MUSCLES**

For release the week of: January 23, 2012

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

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

- How does a muscle improve and get bigger?
- Healthy exercises
- How muscles move your body

**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 does a muscle get stronger?
2. Is it possible to control smooth muscle and cardiac muscle?

## **Activity Ideas**

- Your muscles need exercise to improve. Strong muscles keep you healthy and active. There are many ways to build strong muscles: sports, playground activities, yoga, weight training, etc. Here are some yoga activities any child can do:  
[http://www.youtube.com/watch?v=aN\\_06sXbj4U](http://www.youtube.com/watch?v=aN_06sXbj4U) There are many more kids' yoga videos from this source as well as others.
- Can our muscles push as well as pull? Here's a humorous science video that helps you understand how our skeletal muscles work in pairs to move our body parts.  
[http://www.youtube.com/watch?v=uJEN\\_GT1Xvc](http://www.youtube.com/watch?v=uJEN_GT1Xvc)

### **Use the News**

- Can you think of a funny situation involving strength training and building up your muscles? Create a single frame or multi-frame comic strip about getting healthy and working out. It could be hand-drawn or designed on a computer.

## **Answers to the Quiz**

1.) a, 2.) d, 3.) b, 4.) a, 5.) a, 6.) b, 7.) involuntary, 8.) cardiac 9.) 60, 10.) 34 lbs.,

# Quick Quiz — Muscles

1. There are about 20 groups of muscles in your face.  
a. True b. False
2. Muscles account for about \_\_\_\_ of the weight of an adult human.  
a.  $\frac{1}{8}$  b.  $\frac{3}{4}$  c.  $\frac{1}{3}$  d.  $\frac{1}{2}$
3. Your tongue is an example of a smooth muscle.  
a. True b. False
4. \_\_\_\_\_ muscles have several nuclei in each cell.  
a. Skeletal b. Smooth c. Heart d. Cardiac
5. Most of the muscles that operate your fingers are in your forearm.  
a. True b. False
6. It takes about \_\_\_\_\_ times the number of muscles to smile as to frown.  
a. 2 b. the same c. 5 d. 10

## Vocabulary Comprehension

7. Smooth muscles and cardiac muscles are \_\_\_\_\_ muscles.
8. \_\_\_\_\_ muscles are found in your heart.

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

9. What is the total amount of muscles if there are 20 groups of 3?
10. If you could lift 68 pounds, how much would half that weight be?