

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: AN INSIDE LOOK AT SKELETONS

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

Subject Areas: The following information regarding skeletons will be discussed:

- Bone material
- Identifying our bones
- Bone health

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 are “growing pains”?
2. What are bones made out of? How are they joined together?

Activity Ideas

- How many bones in the human body can you name? Scientists have given a name to all of them. Research and label at least 10 of them on a diagram, photograph, or hand-drawn picture. Then try to locate them on your own body? Where's your skull? Your femur? Your scapula?
- What are the best ways to keep your bones strong and healthy? Research and report on bone health for children. You may want to also research bone health for the elderly. Is it any different than for children?

Use the News

Endo is the prefix in endoskeleton for “inside.” Exo- is the prefix for outside. Use the newspaper to identify forms of activities that occur inside or outside something or someone. Example: We live inside our houses. We put money inside our pockets. It rains outside. We play football outside our houses, but inside a football field. Etc.

Answers to the Quiz

1.) a, 2.) b, 3.) b, 4.) a 5.) b, 6.) c, 7.) femur, 8.) inside, 9.) 94, 10.) 7/8

Quick Quiz – Skeletons

- Babies have more bones than adults.
a. True b. False
- Your skeleton does not stop growing until you are about _____ years old.
a. 16 b. 25 c. 35 d. never
- People are about half an inch taller at night than they are in the morning.
a. True b. False
- Your skeleton accounts for about _____ of your total body weight.
a. 1/5 b. 1/4 c. 1/2 d. 3/4
- Your little toe has the smallest bone in your body.
a. True b. False
- The average adult has about _____ bones.
a. 36 b. 101 c. 206 d. 511

Vocabulary Comprehension

7. Your _____ is the longest and strongest bone in your body.
8. An endoskeleton is _____ a creature's body.

Math Comprehension (subtraction, division, addition, fractions)

9. What's the difference between 300 and 206?
10. If the smallest bone in the body is only $\frac{1}{8}$ of an inch, what fraction added to that would equal one whole inch?