

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: DIGGING UP DIRT ON THE PLOW

For release the week of: July 1, 2013

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

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

- Extreme plows
- Types of plows
- Pros and cons of plowing

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's the world's largest plow?
2. What's the difference between "plow" and "plough"?

Activity Ideas

- Here's a series of videos showing several types of plowing methods:
<http://www.youtube.com/watch?feature=endscreen&v=cnPaRgMNgv8&NR=1>
<http://www.youtube.com/watch?feature=endscreen&NR=1&v=QqtxfcTyGrg>
<http://www.youtube.com/watch?v=c2JSm7yaReQ>
Which one was a "sulky" plow? Which one used the "scratch" method? Which one used a moldboard plow?
- Plowing is generally viewed as a helpful activity to prepare for planting. However, there are some drawbacks to turning over the soil. What could possibly be negative about it? Do some research to learn about some possible alternatives to plowing a field. Here's a webpage to get you started: <http://en.wikipedia.org/wiki/Ploughing>

Use the News

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Answers to the Quiz

1.) b, 2.) c, 3.) a, 4.) d, 5.) b, 6.) a, 7.) frog, 8.) furrow, 9.) 24, 10.) 2,200 sq ft.

Quick Quiz — Plows

1. The scratch plow was invented after the turn plow.
a. True b. False
2. A single-bladed plow with a seat for the farmer is called a “_____” plow.
a. scratch b. gang c. sulky d. knife
3. It was difficult for farmers to turn their moldboard plows.
a. True b. False
4. A _____ plow consisted of a sharpened stick attached to a pole.
a. gang b. turn c. moldboard d. scratch
5. Fields plowed by moldboard plows tended to be perfectly square.
a. True b. False
6. An _____ is a unit of measure a farmer would use to describe his field.
a. acre b. millimeter c. acne d. parsec

Vocabulary Comprehension

7. The frame of a plow is called the “_____.”
8. A trench cut into the soil is called a “_____.”

Math Comprehension (subtraction, division, addition, fractions)

9. If a farmer plowed one acre a day for six days, and then rested on Sunday, how many acres could he plow in four weeks?
10. If a garden is 50 feet wide by 44 feet long, how many square feet is that?