

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: FIRE TRUCKS

For release the week of: July 22, 2013

Objective: After completing the exercises, students should have a better understanding about fire trucks.

Subject Areas: The following information about fire trucks will be discussed:

- Fire truck trivia
- Airport crash truck special equipment
- Fire truck common activities

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. Do modern fire stations still use fire polls to get the firemen from the top floor to the bottom?
2. How much water can a pumper truck carry?

Activity Ideas

- What does an airport crash truck have that a regular fire truck doesn't? Check out this webpage to see some of the high-tech fire fighting devices.
<http://www.popsci.com/content/airport-fire-truck>
- Here are a few of a series of short videos of the Los Angeles Fire Dept responding to fires. They are interesting real views of what fire trucks and fire fighters actually do to respond to a fire. <http://www.youtube.com/watch?v=qRsTNp6iczQ>
<http://www.youtube.com/watch?v=mv1OzPxBC84&list=PLAEBDCFFD90022FE3>
<http://www.youtube.com/watch?v=qg6S6ESzkqk&list=PLAEBDCFFD90022FE3>

Use the News

- Has the fire department been called out on an emergency in recent days? Check the newspaper for reports about fires, accidents, and other emergencies they may have called out for. What happened? Other than fires, why else do they respond to? Read the article and write a brief summary of the situation.

Answers to the Quiz

1.) a, 2.) d, 3.) b, 4.) b, 5.) a, 6.) b, 7.) boom, 8.) saws, 9.) 150,000, 10.) 50 ft.

Quick Quiz — Fire trucks

1. The Romans built the first hand-operated water pumps.
a. True b. False
2. The three common types of fire trucks are pumper trucks, ladder trucks, and _____ trucks.
a. dump b. crash c. flatbed d. rescue
3. Most people think only a ladder truck can be called a true fire truck.
a. True b. False
4. The first steam-powered fire engines were invented in _____.
a. Boston b. England c. Germany d. Rome
5. Pumper trucks carry their own supply of water.
a. True b. False
6. Before the automobile was invented, the first fire engines were pulled by _____.
a. dogs b. horses c. oxen d. elephants

Vocabulary Comprehension

7. The extending ladder built on a fire truck is called a _____.
8. Some fire trucks carry “chain _____.”

Math Comprehension (subtraction, division, addition, fractions)

9. If a fireboat can pump water at 75,000 liters per minute, how many liters could it pump in 2 minutes?
10. If a fire truck boom is 150 feet long, how far would it extend at $\frac{1}{3}$ that distance?