

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: SHEDDING SOME LIGHT ON THOMAS EDISON

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

Subject Areas: The following information about Thomas Edison will be discussed:

- Edison's financial situation
- The light bulb
- Other inventions

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. Was Thomas Edison made rich from his inventions?
2. Did Edison research anything besides electrical items?

Activity Ideas

- How does a light bulb work? Are there new kinds of bulbs? Why were they created? How are they different from old ones? Research and report on light bulbs.
- What other inventions did Thomas Edison create? Research and report on one of his other patented inventions. Is it something that is still used today?

Use the News

- Are any new inventions, discoveries, or consumer products mentioned in the newspaper? Read the paper and share what you learn with the class. Your newspaper may have a science section only once a week. New products you can buy may be reported any time. Will they change people's lives?

Answers to the Quiz

1.) b, 2.) d, 3.) a, 4.) c, 5.) a, 6.) b , 7.) perspiration, 8.) rhyme 9.) 10, 10.) 17 hours

Quick Quiz — Thomas Edison

1. Thomas Edison was often nicknamed the “Wizard of Oz.”
a. True b. False

2. Thomas Edison built his first laboratory in _____.
- a. New York b. Berlin c. California d. New Jersey
3. Thomas Edison invented the phonograph.
- a. True b. False
4. Thomas Edison invented a transmitter that greatly improved the _____ invented by Alexander Graham Bell.
- a. radio b. television c. telephone d. light bulb
5. Thomas Edison published a newspaper at the age of 15.
- a. True b. False
6. During his lifetime, he obtained more _____ than any individual in the United States - more than 1,000 in all.
- a. medals b. patents c. money d. ideas

Vocabulary Comprehension

7. Thomas Edison is associated with the quote, "Genius is 1% inspiration, 99% _____."
8. The first sound to be recorded on Edison's phonograph was the inventor himself reciting the nursery _____ "Mary Had A Little Lamb."

Math Comprehension (subtraction, division, addition, fractions)

9. How many light bulbs would only be a third as bright as 30 light bulbs?
10. How long would a light bulb be lit if it were on for 2 hours, off for 4 hours, on for 6 hours, off for 1 hour and finally on for 9 hours?