

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: A SHORT AND SWEET LOOK AT SUGAR

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

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

- How much sugar is in our daily diet?
- What other sweeteners are there?
- Which sweeteners do you like?

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. Why is sugar bad for your teeth?
2. Look at the ingredients on cans and boxes of food in your house to determine if they contain sugar. Then record how many do or don't. Tally them with the other students' data to calculate the percentage that have sugar.

Activity Ideas

- Why are artificial sweeteners such as sucralose used in diet foods? What are the health benefits or problems with using these chemicals? What other sweeteners, such as honey, are used to sweeten recipes? Research one of these chemical or natural sweeteners and describe the pros and cons of using them.
- Have a taste testing with as many sweeteners as you can find. First decide on a “base” food or drink, such as iced tea. Then have each student bring in an amount of a sweetener so that there are many bowls of different ones to sample. Finally, dip or spoon in a small amount from each and rate how you like it.

Use the News

- Sugar is a “commodity” that is bought and sold for profit. Its price is usually listed in the business section of the newspaper near the stock market quotes. What is the current price of sugar? What other commodities are listed?

Answers to the Quiz

1.) a, 2.) d, 3.) a, 4.) c, 5.) a, 6.) c , 7.) energy, 8.) grass 9.) 80% , 10.) 7

Quick Quiz — Sugar

1. The sugar produced by plants such as sugar cane and sugar beets is called “sucrose.”
a. True b. False
2. Sugar belongs to a group of foods called _____.
a. proteins b. fats c. vitamins d. carbohydrates
3. People in the U.S. Consume about 70 kg (150 lbs.) of sugar per year.
a. True b. False
4. Brazil and _____ are the leading producers of sugar cane in the world.
a. the USA b. China c. India d. South Africa
5. Sugar cane was first grown in the South Pacific more than 8,000 years ago.
a. True b. False
6. About _____ of the sugar consumed in North America comes from corn sweeteners.
a. 1/6 b. 1/3 c. 1/2 d. 3/4

Vocabulary Comprehension

7. Carbohydrates are used as a source of _____.
8. Sugar cane is a member of the _____ family of plants.

Math Comprehension (subtraction, division, addition, fractions)

9. If 20% of the root of a sugar beet is sugar, what percentage is left?
10. If $\frac{1}{2}$ of a class of 42 students like rock sugar, but only $\frac{1}{3}$ of those eat it often, how many is that?