

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: THE BIG PICTURE ABOUT WHALE SHARKS

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

Subject Areas: The following information about whale sharks will be discussed:

- What do they eat?
- Comparison of shark sizes
- Saving sharks

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 whale sharks always swim near the surface, or do they sometimes dive deep in the ocean?
2. What are the plankton and krill that whale sharks eat?

Activity Ideas

- How big are whale sharks compared to other types of sharks? Research and make a comparison chart displaying their lengths and a simple outline sketch of their bodies.
- Whale sharks are sometimes killed or injured by people who want their fins. Their fins are considered a delicacy in some places. However, since they are such docile and interesting creatures, many people are starting to organize eco-friendly trips into the ocean to view and sometimes swim with them. Here are some pictures of these huge fish with divers close by. <http://www.dailymail.co.uk/news/article-2182996/Breathtaking-images-beauty-giant-whale-sharks.html>

Use the News

- Can you create a newspaper editorial cartoon that makes a statement about saving the whale shark from injury and extinction? You may want to look at some other editorial cartoons to help you get an idea about what they look like. Here are some examples online:
<https://www.google.ca/search?q=editorial+cartoons+about+science&hl=en&rls=com.microsoft:en-US:%7Breferrersource%7D&tbm=isch&tbo=u&source=univ&sa=X&ei=N4JrUbSEDpTYyAHogoGABw&ved=0CC8QsAQ&biw=1920&bih=995#imgc=>

Answers to the Quiz

1.) a, 2.) c, 3.) a, 4.) d, 5.) a, 6.) b , 7.) live, 8.) filter, 9.) 1 mile, 10.) 19 ft.

Quick Quiz — Whale Sharks

1. The average adult whale shark is about 8 m (26 ft.) long.
a. True b. False

2. Scientists believe whale sharks may live as long as _____ years.
a. 5 b. 10 c. 70 d. 120

3. Whale sharks squirt water out of their gills.
a. True b. False

4. Whale sharks have more than 300 rows of tiny _____.
a. hairs b. eyes c. fins d. teeth

5. The whale shark is the largest living species of fish.
a. True b. False

6. A whale shark's mouth can measure nearly _____ feet in diameter.
a. 2 b. 5 c. 9 d. 13

Vocabulary Comprehension

7. Whale sharks give birth to _____ young.

8. Whale sharks are _____ feeders.

Math Comprehension (subtraction, division, addition, fractions)

9. If a whale shark swam 4 miles an hour, how far would it swim in 15 minutes?

10. If a whale shark grew from 2 ft. to 21 ft., what is the difference between the lengths?