

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: MEETING MOLLUSKS

For release the week of: October 28, 2013

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

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

- Mollusk defenses
- The intelligence of octopuses and squids
- The many shapes of mollusks

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 kinds of “extreme” mollusks are there?
2. How do mollusks defend themselves?

Activity Ideas

- Octopuses and squids are the most intelligent types of mollusks. How did scientists determine this? What do the animals do that shows their intelligence? How does their intelligence compare to other creatures? Research and report on how smart these two mollusks are. There may be some interesting videos on this subject on the Internet.
- There are over 100,000 types of mollusks and each of them has an interesting appearance. Use some modeling clay to make temporary models of several species. You may need to research images of the ones you want to sculpt. If you have time, try to make several different mollusk shapes so you can compare their differences.

Use the News

- Mollusks can be described as hard, soft, slimy, slow, tasty, small, etc. As you read the newspaper, make a list of these types of descriptive words. Reporters use adjectives to describe the subject of their article. What adjectives can you find in the newspaper?

Answers to the Quiz

1.) a, 2.) c, 3.) a, 4.) a, 5.) b, 6.) d , 7.) shell, 8.) liquid, 9.) 63, 10.) 48 inches

Quick Quiz — Mollusks

1. Bivalve mollusks do not have a head.
a. True b. False
2. A mollusk's body is covered with a skin-like organ called a _____.
a. sheet b. operculum c. mantle d. cape
3. Squids have a shell inside their body.
a. True b. False
4. _____ are some of the smartest types of mollusks.
a. Squids b. Clams c. Cuttlefish d. slugs
5. Most species of mollusks have no outer shell to protect their bodies.
a. True b. False
6. Some shelled mollusks have a hard growth on their _____ called an operculum.
a. head b. shell c. stomach d. foot

Vocabulary Comprehension

7. The _____ of a mollusk is made mostly of calcium carbonate.
8. A mollusk creates its shell by secreting a _____ from its mantle.

Math Comprehension (subtraction, division, addition, fractions)

9. If 9 octopuses had 7 babies each, how many octopuses would there be?
10. If a snail moved 12 inches in an hour, how far might it go in 4 hours?