

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: FACING THE WIND

For release the week of: December 30, 2013

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

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

- Otherworldly winds
- Experimenting with wind
- Using global winds to navigate the world

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 might Neptune and Saturn have such powerful winds?
2. How fast is your current wind speed? How fast was the wind speed of a recent hurricane?

Activity Ideas

- Experiments are a great way to learn about the wind. What might you find blowing in the wind? What is air pressure? How does a barometer work? These are just some of the questions to explore in this series of experiments designed for kids curious minds: <http://www.weatherwizkids.com/weather-wind.htm> Read and discuss the information before starting the experiments.
- Which trade winds did sailors use to sail from place to place around the world? Look at the directions of the arrows on the Shortcuts diagram and then match them with actual places on the Earth. You could use an atlas, classroom map, or online map to chart your course. Would you sail near the equator or further north if you were starting from France and traveling to Florida? How about starting from New York and sailing to England? Try some routes in the southern hemisphere also. How are they different from the northern hemisphere?

Use the News

- What is the weather like in your area? Do you know the wind speed or the temperature? Your newspaper should have a weather section to find your local weather information. Search your paper for this information. Is there a weather map? Does it show the areas of high and low pressure? The high-pressure areas should create winds moving into the low pressure areas. Check it out!

Answers to the Quiz

1.) a, 2.) c, 3.) a, 4.) a, 5.) a, 6.) d , 7.) pressure, 8.) rotation, 9.) 339 km/hr, 10.) 44 km/hr

Quick Quiz — Wind

- High pressure winds move to low-pressure areas.
a. True b. False
- The _____ winds blow along the Equator.
a. westerlies b. Polar c. trade d. storm
- Saturn and Neptune have very powerful winds.
a. True b. False
- Most of the global wind on our planet is caused by a process called _____.
a. circulation b. condensation c. saturation d. evaporation
- Winds are identified by the direction the wind is coming from.
a. True b. False
- A short burst of strong wind is called a _____.
a. cyclone b. breeze c. storm d. gust

Vocabulary Comprehension

- Air _____ refers to the weight of the air that presses down on the surface of the Earth.
- The _____ of the planet and the heat from the sun create bands of winds that circle the globe.

Math Comprehension (subtraction, division, addition, fractions)

- What's the difference in wind speed from 408 km/hr and 69 km/hr?
- How much faster is a wind speed of 121 km/hr than 77 km/hr?