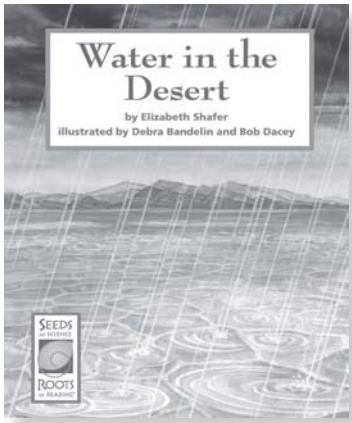
Strategy Guide

Teaching Text Structure

with *Water in the Desert* from *Seeds of Science/Roots of Reading*®



Introduction

This strategy guide introduces an approach for teaching students how to identify a book's text structure. Text structure refers to how a text is organized; understanding this organization can support reading comprehension. Science texts are often organized around conventional structures such as cause–effect, time–order, or compare–contrast. This guide includes an introductory section about the strategy of identifying a text's structure, a description of how to teach this strategy with many science texts, and a plan for teaching text structure with the *Seeds of Science / Roots of Reading*® book *Water in the Desert*.

Book Summary

Water in the Desert is set in one of the driest places on Earth—the Great Basin Desert. The book chronicles a single day in this desert, providing an inside look at what happens to the water that is present there. Though one may think of a desert as dry, water is actually everywhere—evaporating into the air, soaking into the ground, and sometimes falling from the clouds. Readers learn that phase changes, particularly evaporation and condensation, happen in a desert ecosystem. The book's detailed descriptions and illustrations provide examples of the many ways a small amount of water in a desert changes phases throughout a typical day. Readers also learn about the ways that desert plants and animals survive with very little water.

About This Book

Reading Level
Guided Reading Level*: O

Key Vocabulary
condensation, evaporation, humidity, phase, virga, water vapor

Text Features
bold print, captions, diagrams, glossary, headings, illustrations, labels, table of contents

*Guided Reading Levels based on the text characteristics from Fountas and Pinnell, *Matching Books to Readers.*

Science Background

Water plays a critically important role in desert life. Even when it does not rain, water is present in the air as water vapor. Although deserts are hot during the day, they get quite cold at night. When the ground gets cold, it cools the water vapor enough to change it into a liquid. This liquid collects on the leaves of plants and is called dew. Later, when the Sun heats up the air, dew and moisture in the ground evaporate, turning into water vapor. As water vapor rises, it may cool and condense into tiny water droplets that form clouds. When these droplets get heavy, they fall as rain. Sometimes, rain falls in the desert but evaporates before it ever reaches the ground. This phenomenon is called virga and happens because the air is so warm and dry. Plants and animals in the desert ecosystem possess particular adaptations to help them survive in such a dry climate. For example, the sage plant has long and shallow roots through which it soaks up small amounts of water close to the surface of the ground. The spadefoot toad is adapted to live underground where it can stay moist. The desert tortoise digs holes in which to catch water when it rains, and some desert birds drink the water that condenses as dew. As in all ecosystems, water is critically important for the survival of the organisms that live there.

About Text Structure

Text structure refers to the ways that authors organize information in text. For example, some texts are organized as a chronological sequence of events, while others compare two or more things. Teaching students to recognize the underlying structure of content-rich texts can help them focus attention on key concepts and relationships, anticipate what is to come, and monitor their comprehension as they read.

Students can learn to identify a text's structure by paying attention to signal words. Signal words link ideas together, show relationships, and indicate transitions from one idea to the next. Each text structure is associated with different signal words (shown in the box on this page). Text structure can also be taught using graphic organizers, which visually represent the relationships among key ideas. Graphic organizers can be particularly helpful for English Language Learners and struggling readers who can use these visual tools to help organize important ideas from text.

Teaching Text Structure

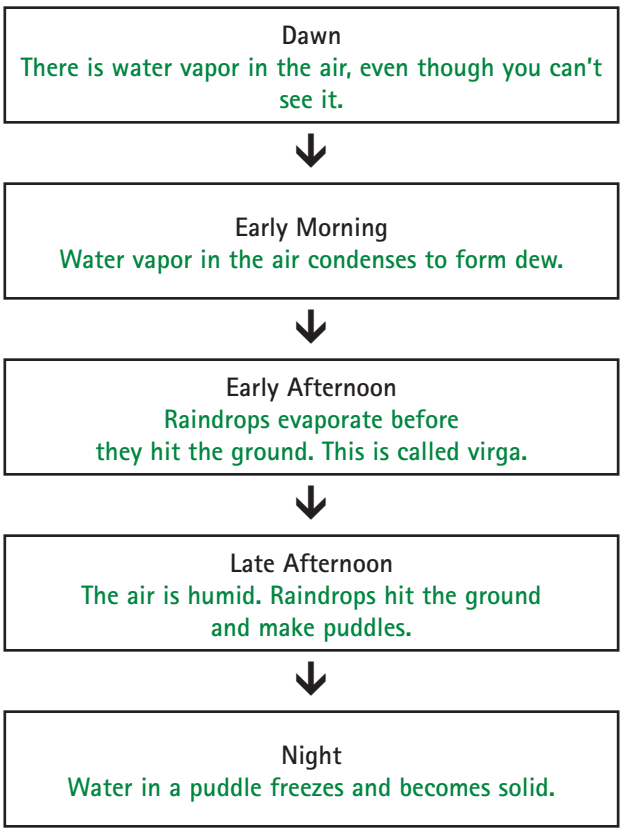
The following guidelines can be used to teach students about text structures that are common in content-rich texts.

- Select an appropriate text on a topic from your curriculum. Note that some texts may utilize more than one text structure. When introducing text structure, it's best to select a text (or portion of a text) that has one easily identifiable text structure.
- Locate a graphic organizer that represents the text's structure and create a blank version on the board to complete with students. You may also choose to reproduce individual copies of the graphic organizer for students. (Graphic organizers for various text structures are available at www.seedsofscience.org/strategyguides.html)
- Before reading the text, explain to students that informational texts can be organized in predictable ways. The way the text is organized is called its structure. Identifying a text's structure can help readers anticipate how ideas will be presented and can aid comprehension.

Text Structure Signal Words

- **cause–effect:** therefore, as a result, leads to, so, because of, thus, in order to, if...then
- **problem–solution:** fortunately, unfortunately, therefore, trouble, problem, issue, challenge, answer, solution, conclusion
- **compare–contrast:** different from, the same as, similar to, as well as, but, compared to, in contrast, however, like, unlike, more, less
- **time–order:** first, next, then, last, finally, meanwhile, following, before, after, on [date]
- **description:** for example, for instance, in addition, also, too, some, most, all, other
- **question–answer:** what, where, why, who, how, when, does

- Explain that students can identify a text's structure by paying attention to signal words. These words link ideas together, show relationships, and indicate transitions from one idea to the next.
- Read a portion of the text aloud, indicating when signal words are used. Point out how these words help you determine which text structure the author used to organize the book. (Use the box at the top of this page as a reference.)
- Have students finish reading the text. Remind them to use signal words to help them pay attention to how the text is organized.
- Introduce the graphic organizer that you drew on the board. Explain that the graphic organizer depicts visually how the text is structured. Have students participate in completing the graphic organizer on the board using ideas from the text. You can also have students write ideas on individual graphic organizers.
- Reinforce that identifying a text's structure can help students better understand what they read. Remind students to pay attention to text structure as they read. Introduce other text structures as students encounter them when they read other content-rich texts.



Teaching Text Structure with *Water in the Desert*

Getting Ready

1. Write the times of day (shown in black type in the model above) on the Time–Order Text Structure copymaster and make a copy for each student.
2. Draw a large version of the graphic organizer on the board or on a piece of chart paper using the model above. Fill in only the times of day. The summary statements in green are suggested student responses, for your reference.

During Class

1. Introduce *Water in the Desert* by telling students that the book is set in one of the driest places on Earth—the Great Basin Desert. Point out that the narrative takes place over the course of one day in the desert.
2. Explain that informational texts can be organized in predictable ways and that the way the text is organized is called its structure. Emphasize that identifying a text's structure can help readers understand a text.
3. Explain that in *Water in the Desert*, the time of day at the top of each section helps readers recognize that this book is organized in a time–order sequence. Words students might see in texts that use the time–order text structure include *first*, *next*, *then*, and *finally*. Tell students to focus on what is happening with water at various times of day as they read.
4. Read the book in a way that is consistent with your classroom routines, giving students as much independence as possible.
5. After students have read the book once, introduce the graphic organizer that you prepared before class. Explain that the graphic organizer visually depicts how the text is structured. Tell students you have selected five times of day from the text to include on the graphic organizer.
6. Distribute the student sheets and have students turn to page 4 of the book and locate the time of day. [Dawn.] Point out the corresponding box on the graphic organizer.
7. Have students read pages 4–5. Together with students, create a summary statement(s) that tells what is happening with water at this time of day. Write the summary statement in the first box on your graphic organizer and ask students to do the same on their student sheets.
8. Have students revisit the text and write a summary statement about what is happening with water at each time of day remaining on the graphic organizer.
9. As a class, reflect on how identifying a text's structure helped students organize and better understand information learned from reading.

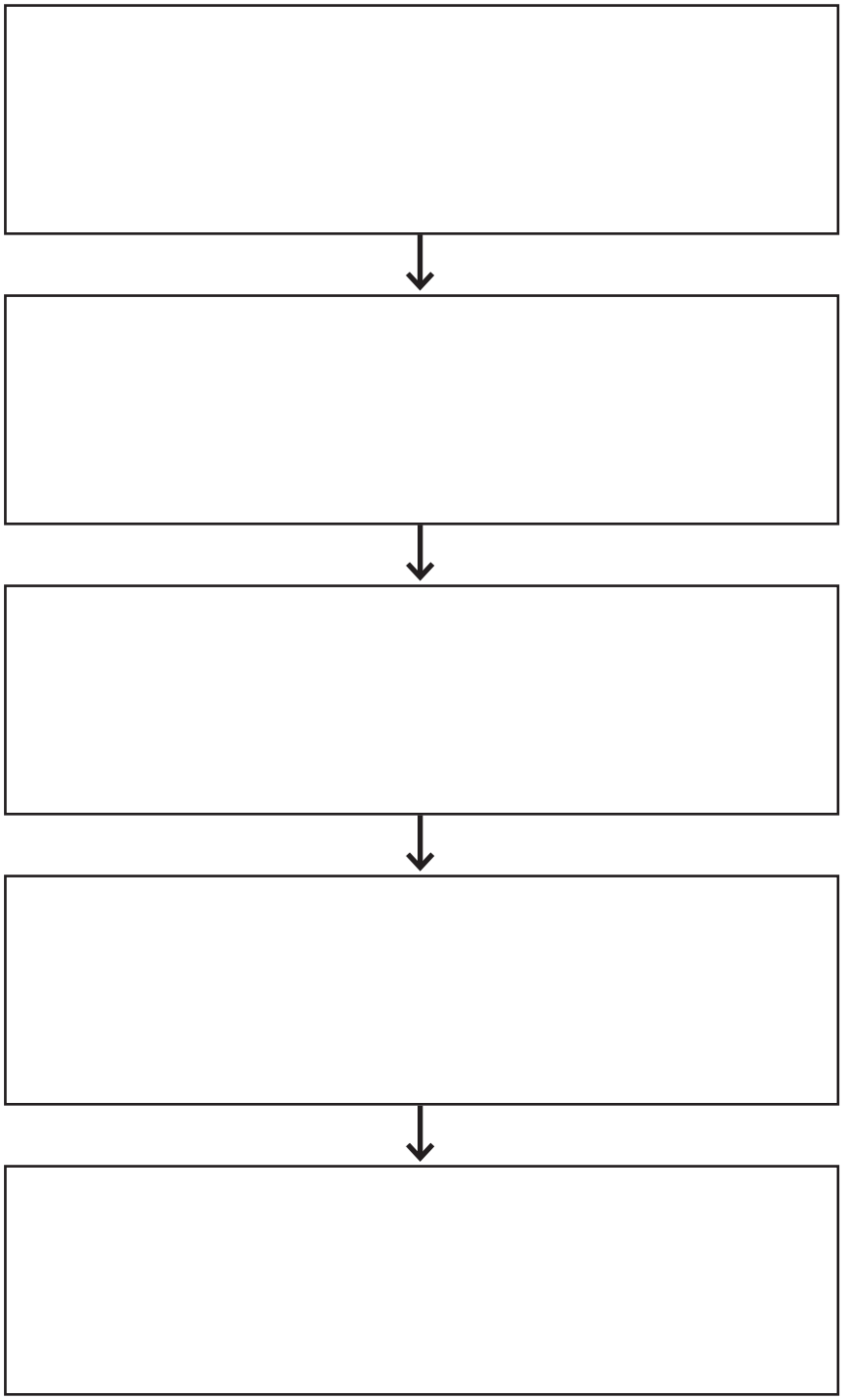
Independent Extension

Ask students to choose one phase change from *Water in the Desert* (evaporation, condensation, freezing, or melting) and think of a familiar example of water going through this phase change. (For example, a puddle evaporates on a hot day.) Then, have students describe in writing what conditions are present when this change occurs. Encourage students to use illustrations or diagrams to further explain their ideas.

Name _____ **Date** _____

Time–Order Text Structure

Title of book: _____



About Strategy Guides

A six-page strategy guide is available for each *Seeds of Science / Roots of Reading*® student book. These strategies support students in becoming better readers and writers. They help students read science texts with greater understanding, learn and use new vocabulary, and discuss important ideas about the natural world and the nature of science. Many of these strategies can be used with multiple titles in the *Seeds / Roots* series. For more information, as well as for additional instructional resources, visit the *Seeds / Roots* Web site (**www.seedsofscience.org/strategyguides.html**).

Student Books for Grades 3–4

Twenty-seven engaging student books are available, each with a corresponding strategy guide. The books are part of the *Seeds of Science / Roots of Reading*® curriculum program described on page 6.

Digestion and Body Systems	
Strategy	**Student Book**
Analyzing Part-to-Whole Relationships	*Systems*
Teaching About the Nature and Practices of Science	*Secrets of the Stomach*
Teaching Process Description Writing	*Voyage of a Cracker*
Searching for Information in Science Texts	*Handbook of Body Systems*
Making Sense of Data in Science Texts	*What's the Diagnosis?*
Variation and Adaptation	
Strategy	**Student Book**
Teaching Scientific Comparison Writing	*Blue Whales and Buttercups*
Using Discourse Circles	*The Code*
Using Visual Evidence to Make Inferences	*Mystery Mouths*
Teaching About the Nature and Practices of Science	*Evidence from the Past*
Weather and Water	
Strategy	**Student Book**
Teaching About the Nature and Practices of Science	*Tornado! A Meteorologist and Her Prediction*
Teaching About Multiple Meaning Words	*Falling Through the Atmosphere*
Gathering Information from Science Texts	*Weather Encyclopedia*
Teaching Text Structure	*Water in the Desert*
Using the Cognates Strategy	*Drinking Cleopatra's Tears*
Connecting Science Words and Everyday Words	*Go with the Flow: Making Models of Streams*
Taking Notes Based on Observations	*Sky Notebook*
Teaching Text Features	*Wet Weather Handbook*
Making Sense of Data in Science Texts	*What's Going on with the Weather?*
Light Energy	
Strategy	**Student Book**
Teaching About Idioms	*Can You See in the Dark?*
Teaching Summary Writing	*The Speed of Light*
Teaching About the Nature and Practices of Science	*Why Do Scientists Disagree?*
Using Discourse Routines with Science Texts	*I See What You Mean*
Searching for Information in Science Texts	*Handbook of Light Interactions*
Teaching Scientific Explanation Writing	*Light Strikes!*
Teaching Vocabulary with Science Texts	*Cameras, Eyes, and Glasses*
Teaching Concept Mapping	*It's All Energy*
Interpreting Visual Representations	*Sunlight and Showers*

Extend Learning with *Seeds of Science/Roots of Reading*®

The strategy featured in this guide is drawn from the *Seeds of Science / Roots of Reading*® curriculum program. *Seeds / Roots* is an innovative, fully integrated science and literacy program.

The program employs a multimodal instructional model called "Do-it, Talk-it, Read-it, Write-it." This approach provides rich and varied opportunities for students to learn science as they ***investigate*** through firsthand inquiry, ***talk*** with others about their investigations, ***read*** content-rich books, and ***write*** to record and reflect on their learning.

Take advantage of the natural synergies between science and literacy instruction.

- Improve students' abilities to read and write in the context of science.
- Excite students with active hands-on investigation.
- Optimize instructional time by addressing goals in two subject areas at the same time.

To learn more about *Seeds of Science / Roots of Reading*® products, pricing, and purchasing information, visit **www.deltaeducation.com**

***Weather and Water* Science and Literacy Kit**

SEEDS OF SCIENCE / ROOTS OF READING®

Developed at Lawrence Hall of Science and the Graduate School of Education at the University of California at Berkeley.

Seeds of Science/Roots of Reading® is a collaboration of a science team led by **Jacqueline Barber** and a literacy team led by **P. David Pearson** and **Gina Cervetti**.

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