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# Introduction

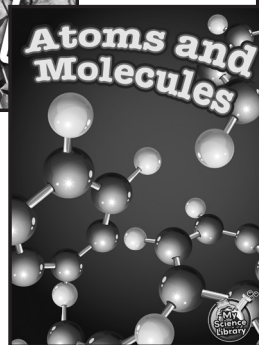
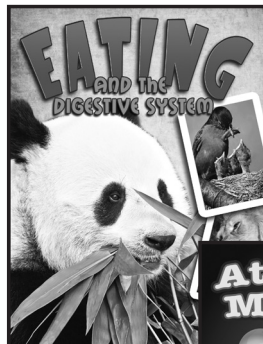
*My Science Library: Comprehension, Writing, and Vocabulary Skills using Informational Text* is a resource specially designed to provide scaffolding and practice for developing comprehension, writing, and vocabulary skills. All activities are based on science texts, allowing teachers to simultaneously teach language arts and science standards.

## WHAT'S INCLUDED?

This kit includes a set of science-content nonfiction readers, a Teacher Resource book with guided lessons and student worksheets, an activity CD, and correlations to the Common Core Standards for English Language Arts and to state science standards.

### ***Leveled Nonfiction Readers***

Three copies are provided for all of the titles in the kit. Each of the readers addresses a science topic at a student-appropriate reading level. In addition, the science focus of the readers varies so that students are introduced to, and learn about, concepts from the areas of physical science, Earth science, and life science.



The readers include colorful photos and illustrations that support the content. In addition, the book covers contain lively and relevant pictures that can serve as useful pre-reading tools and are referenced in prompts within the corresponding units in the Teacher Resource

book. Each reader also contains a glossary. Boldface words in each reader are defined in the glossary and are further explored in connected activities presented in the Teacher Resource book. The readers include text features, such as captions, charts, and a table of contents. These text features make it possible to practice important reading strategies, and are used in the teacher sections of the corresponding units included in the Teacher Resource book.

Each reader provides a Guided Reading Level, as well as word count and 100th-word information. These features allow teachers to use appropriate texts for students and make this resource an excellent reading-intervention tool. The readers also list the sight words used. This means teachers can prepare for reading by teaching or reviewing the sight words students will encounter.

Additional resources, such as related websites and teaching tips, are included in the readers. The features in the readers combined with the connected units in the Teacher Resource book give teachers the tools to teach a very comprehensive or very focused unit that is based on students' needs.

### ***Activity CD***

The activity CD contains all of the student pages from the Teacher Resource book, as well as correlations to the Common Core State Standards. The CD is located at the back of this book. All student pages are presented in PDF format and are easy to access and print. They can also be projected onto an interactive whiteboard. This ensures teachers always have quick access to their favorite activities and makes it easy to project directions on the board for reference. Using an interactive whiteboard, teachers can also guide or begin activities in a whole-group format for additional scaffolding.

# Introduction

## Standards

The lessons and activities are correlated to the Common Core State Standards for English Language Arts and to each state's science standards. Common Core correlations are provided on the CD and online at [www.bluestareducation.com](http://www.bluestareducation.com). Correlations to the science standards for each state can be found on the Blue Star Education site. The PDF format and chart-style presentation for the standards make the correlations easy to print and use.

## Teacher Resource Book

This book is organized by topic, with a unit covering each of the titles in the kit. Each of these units contains a teacher section with information about the reader, a scripted reading-comprehension guide, and a guide to the student pages with an answer key. The student pages comprise the second portion of each unit and include one or more activities from each of the following sections: Reading Applications, Writing Connections, Academic Vocabulary, and Science Connections. Each activity relates to the subject matter and to the specific vocabulary and reading challenges of the reader.

## TEACHER RESOURCE

### LESSON STRUCTURE AND CONTENT

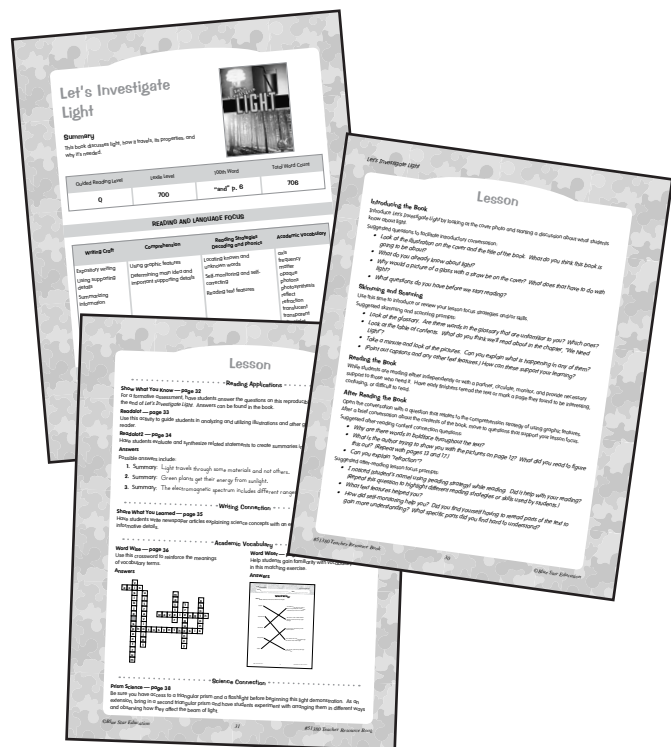
#### Teacher Section

Lessons and activities are provided for every reader in the kit. The first page of each unit contains a short guide to the book, including a summary and leveling information.

It also includes the unit's science content focus as well as the reading and language focus. The latter is divided into categories for easy reference. The categories are writing craft; comprehension; reading strategies, decoding, and phonics; and academic vocabulary.

The second page of each unit contains guided reading prompts, which are scripted for easy use. They are divided into four sections: Introducing the Book, Skimming and Scanning, Reading the Book, and After Reading the Book. This organization provides teachers with prompts and guidance to support students through all phases of the reading process. Each unit contains prompts that address a specific comprehension strategy as well as general content-connection prompts.

The third page of each unit provides an overview of the student activities contained in the unit. It is divided into sections for easy navigation. Each activity is introduced with a short description of its purpose and benefits as well as the page number for easy navigation. Teachers can review this page to learn if any additional materials will be needed and to review correct answers.

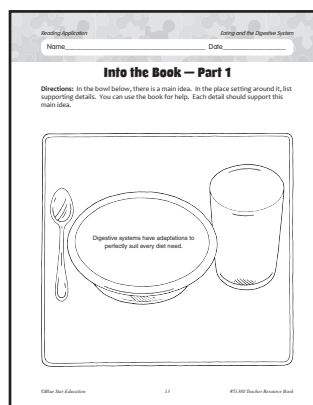


# Introduction

## TEACHER RESOURCE

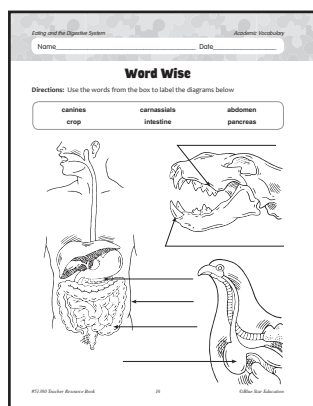
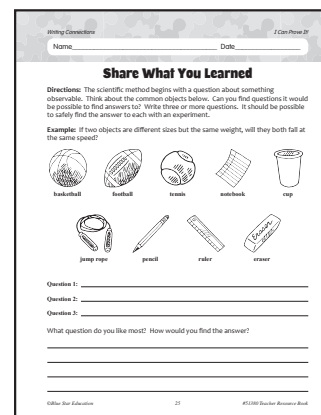
### Student Pages

Each student page represents a stand-alone activity with tie-ins to the concepts and vocabulary introduced in the reader. The activities in each unit can be presented as a unit of study to support comprehension, vocabulary, and writing skills. Alternatively, teachers can pick and choose which activities are most needed or set some activities aside for a review later in the year. Each unit contains one or more reading applications, writing connections, academic vocabulary activities, and science connections.



**Reading Application:** There are three pages in each of these sections. Show What You Know can be found both in the reader and as a separate worksheet in the Teacher Resource book. As with all other student pages, it is on the CD. Answers to the questions can be found in the text of the reader, making this a great formative assessment for reading comprehension. Into the Book — Part 1 and Into the Book — Part 2 expand on the main ideas in the reader. Students use critical thinking skills to process text and answer questions with information they have read.

**Writing Connections:** One or more student pages from this category are represented in each unit. These open-ended activities will help students process what they have learned and make personal connections to the subject matter. Here, students will practice a variety of fiction and nonfiction writing skills.

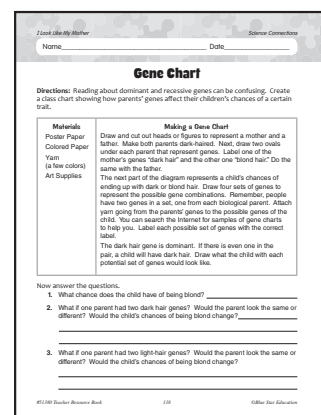


**Academic Vocabulary:** Each unit contains one or more pages from this category, which will support students as they learn academic vocabulary. Every reader has a glossary of academic vocabulary. The vocabulary words are in boldface where they are used in context in the reader. Word Wise and Word Wiser provide extra practice with the vocabulary.

**Science Connections:** The activities suggested in this section provide a variety of approaches to the subject matter from analytical activities, such as comparing and contrasting, to science experiments. They include writing or vocabulary components so that students are practicing core language skills even as they deepen

their understanding of science concepts. The hands-on nature of these activities allows students to engage a variety of learning styles.

The components can be used in a manner tailored to accommodate the needs and interests of an individual student, a small group, or the entire class. What follows is a general guide to using the components of one unit. This overview focuses on using the readers in conjunction with the information, prompts, and activities in the Teacher Resource book. It is also possible to get quick tips and ideas relating to all phases of the reading process from the information provided on the inside covers of the readers.





# Introduction

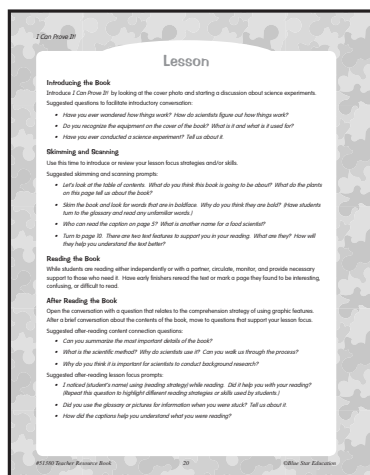
## USING THE COMPONENTS

### Selecting a Text

You may choose to use all components of this kit, using the titles in the order in which they are introduced in the Teacher Resource book. To facilitate this, the reading levels of the titles are arranged in increasing order of difficulty, with the books at the beginning of the set representing the easiest reading levels. However, in an intervention setting, you may select texts most suited to the reading proficiency and interests of one student or a small group. Because the lessons for each title can be used independently, and contain writing, reading comprehension, and science activities, it is easy to pick and choose among the titles offered within the kit.

To select a text, refer to the first page of the title's unit in the Teacher Resource book. There, a summary, reading level information, and learning foci can be found. (Note: For convenience, Guided Reading and Lexile levels for each book are shown on page 8 of this book.) On the third page of each unit, a teacher can also find short descriptions of activities and materials needed, if any are needed. In addition, the inside covers of the readers offer tips and ideas for how individual titles may tie into other English Language Arts curricula.

I Can Prove It!			
<b>Summary</b> This book explains how scientists conduct experiments using the scientific method. In this book, you will learn each step needed to conduct an experiment using this method.			
Guided Reading Level	Lexile Level	100th Word	Total Word Count
Q	700	"and" p. 8	745
<b>READING AND LANGUAGE FOCUS</b>			
<b>Writing Craft</b> Writing analytically Using academic vocabulary Summarizing information	<b>Comprehension</b> Finding information in texts Using graphic features	<b>Reading Strategies: Decoding and Fluency</b> Adding questions Cross-checking text to pictures Using picture clues Learning to read on unfamiliar words	<b>Academic Vocabulary</b> controlled variables data hypothesis manipulated variable measurable scientific method variables theory wild variables
<b>SCIENCE CONTENT FOCUS</b>			
Students • Knows the steps of the scientific method			
©Blue Star Education      #51380 Teacher Resource Book			



### Preparing to Read

Once a title has been selected, it is time to activate students' prior knowledge in the following areas: experience with or understanding of the science concepts, ability to use pre-reading and reading-comprehension strategies, identification of already-known words, and understanding of text features. The second page of each unit in the Teacher Resource book features prompts and questions targeted to these areas. The Introducing the Book and Skimming and Scanning sections help teachers lead students to use pre-reading strategies and discuss their prior knowledge. Scripted prompts are provided to minimize preparation time for the teacher.

### Reading the Book

Teachers can choose to have students read the text individually, in pairs or small groups, or as a class. When students read with partners or in a group setting, there is more support built into the process. However, it is important to incorporate some sort of system to ensure equity of voice. For example, students can take turns reading one or two pages at a time or can alternate sentences. If a strong reader is paired with an emerging reader, the strong reader can read the body text with the emerging reader reading the captions and discussing the pictures the first time through the text. They can then repeat the process, trading roles.

There are many ways to ensure that all students receive reading practice and feel supported in their efforts. Teachers needn't choose only one. In fact, students may appreciate the opportunity to alternate group and independent reading throughout the year. Regardless of the configuration chosen, when using the lessons, teachers are encouraged to circulate and monitor students, providing necessary support. Early finishers can be asked to note words or pages they found challenging.

# Introduction

## USING THE COMPONENTS

*Eating and the Digestive System* *Reading Applications*

Name \_\_\_\_\_ Date \_\_\_\_\_

**Show What You Know**

Directions: After reading *Eating and the Digestive System*, answer these questions.

1. What is the purpose of the small intestine?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. What adaptations do herbivores have to help them digest their food?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What special ways do birds digest their food?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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### *Processing the Reading*

Once students have completed a reader, it is important to assess and develop student comprehension. A formative assessment for reading comprehension, called Show What You Know, is provided as a handout on the fourth page of each unit in the Teacher Resource book. The same questions are also presented at the end of each reader before the glossary and on the activities CD. Have students complete and turn in the handout as a formative assessment, or use the questions as a jumping-off point when discussing the text. Additional prompts and questions are available on the second page of each lesson. Here, the scripted prompts are divided to address two foci, making content connections and addressing the lesson focus. For each title, there is a lesson focus provided, though teachers can create a different or additional focus based on student needs.

### *Extending the Learning*

All student pages can be found in the Teacher Resource book and on the learning CD, providing a variety of presentation options for the teacher. While the student pages in each unit can be taught in any order, it is recommended to follow up the reading-comprehension discussion with a writing-connection activity. With the Share What You Learned activity sheet, students can recount information in their own words or make a personal connection to the topic while developing important writing skills. To create buy-in for students, it is recommended that teachers publish student writing in some way. Ways to do this include having students share all or part of what they wrote with others, putting work up in a display, or putting completed writing assignments together in a binder or booklet for students and visitors to read.


*Writing Connections* *The Wonderful Water Cycle*

Name \_\_\_\_\_ Date \_\_\_\_\_

**Share What You Learned**

Directions: Sometimes, people need to use their writing skills to help them make a difference. What if other students in your class want to volunteer to keep water clean? Choose a conservation activity from the box or think of another one; then write a proposal. In your proposal, include:

- ☐ An introduction and conclusion
- ☐ A main idea
- ☐ Details about the activity
- ☐ What will be needed to organize it



A class water-conservation chart with goals and awards  
Beach or lakeshore cleanup  
An informational brochure about acid rain  
A letter-writing campaign about an environmental measure

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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Next, the Teacher Resource book provides academic-vocabulary activities. The words used in these activities are the same ones made boldface in the corresponding readers and addressed in the glossaries. These activities are a great reinforcement of newly learned vocabulary words. It is recommended to also dedicate part of a classroom wall to academic vocabulary. Put up cards with the new terms and their definitions or representative pictures. An accessible, visual presentation of academic vocabulary in the classroom supports student use of the vocabulary in reading comprehension and in writing and discussion. This can be done at the beginning of the unit or when the vocabulary lesson is introduced. It is also an option to include student work in the display, or to involve students in the work of creating the display.

Each unit is rounded off with one or more science-connection activities. In the descriptions of the activities (on the third page of each unit in the teacher's guide), teachers can learn if any materials are needed and what adaptations or extensions to the activities are offered. Overall, science-connection activities require a minimum of additional materials and outside preparation, with some requiring none at all.

# Introduction

## USING THE COMPONENTS

### Extending the Learning

To ensure success in the science-connection activities, prepare and discuss behavior guidelines with students. The activities include a writing element or require students to record or classify information. In addition to providing writing and critical-thinking practice, this provides a balance of active and reflective tasks in the activities that have a strong hands-on component. Consider projecting the directions using the PDF of the handout included on the CD. Review the directions and provide a time limit to keep students focused. For group activities, make sure student tasks are structured so that all students will participate constructively.

It is recommended that teachers encourage student reflection upon completion of activities or of the unit. Many opportunities are built into prompts and activities in the Teacher Resource book. To extend a unit further, teachers can provide variations and extensions to many of the included lessons, or they can explore the website addresses provided at the back of each reader. With the guidance and flexibility built into this program, teachers are able to save time even as they tailor units to meet their students' needs. This resource encourages differentiation, honors diverse learning styles, and promotes reflective learning, all while providing scaffolded reading support.

How Do Humans Depend on Earth? Science Connections

Name \_\_\_\_\_ Date \_\_\_\_\_

### Greenhouse Effect

Directions: Read the information about the greenhouse effect (page 13). Then, do this activity to create your own demonstration.

**Materials**  
Shoe Boxes Plastic Wrap Thermometers Tape Aluminum Foil Colored Paper

Box Description	Temperature
plain box, no wrap	
plain box, 1 sheet	
plain box, 2 sheets	
plain box, 3 sheets	

**Making Environment**  
You will need a sunny day for this activity. Put a thermometer into each box so that it can be read without moving it. Place the thermometers in the same part of each box. Leave one box open. On a second box, place one sheet of plastic wrap over the opening, taping it securely in place. On a third box, place two sheets of plastic wrap, and on a fourth, place three sheets of plastic wrap. Experiment with the remaining boxes, putting colored paper or foil inside the box (under the thermometers) and using varying amounts of plastic wrap.

Next, leave the boxes in the sun. Arrange them so the sun will hit all the thermometers equally. Later in the day, come back and record the temperatures in the chart, analyze the evidence below.

Which boxes were hottest? Why do you think that is?

In what ways is this like the diagram of Earth's atmosphere on page 13?

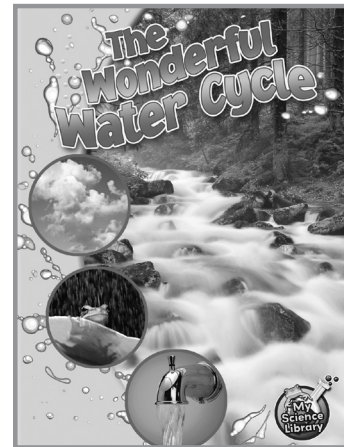
Are there differences between this experiment and Earth's atmosphere that could make it misleading?

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## NONFICTION READERS—READING LEVELS

READER TITLE	GUIDED READING	LEXILE
Eating and the Digestive System	P	675
I Can Prove It! Investigating Science	Q	700
Let's Investigate Light	Q	700
Changing Matter: Understanding Physical and Chemical Changes	R	725
How Do Humans Depend on Earth?	R	725
Atoms and Molecules	S	775
Fossils and Rocks	S	775
Analyze This: Testing Materials	T	800
The Amazing Facts About Sound	T	800
The Wonderful Water Cycle	U	825
I Look Like My Mother	V	875
Plants as Food, Fuel, and Medicine	W	900

# The Wonderful Water Cycle



## Summary

This book discusses how the water cycle works and the consequences of lack of precipitation, wasting water, and pollution.

Guided Reading Level	Lexile Level	100th Word	Total Word Count
<b>U</b>	<b>825</b>	<b>"to" p. 6</b>	<b>836</b>

## READING AND LANGUAGE FOCUS

Writing Craft	Comprehension	Reading Strategies Decoding and Phonics	Academic Vocabulary
Using a variety of details to support main ideas Summarizing information	Determining main idea and important supporting details Defining words with synonyms and antonyms	Visualizing Locating known and unknown words Self-monitoring and self-correcting Reading text features	acid rain agriculture condensation conserve evaporates irrigation matter molecules precipitation recreation reservoirs sewage water cycle water vapor

## SCIENCE CONTENT FOCUS

### Student:

- Understands the water cycle and how humans process dirty water
- Knows ways to conserve and care for water

# Lesson

## Introducing the Book

Introduce *The Wonderful Water Cycle* by looking at the cover photo and starting a discussion about what students know about the importance of water and the water cycle.

Suggested questions to facilitate introductory conversation:

- *Look at the illustration on the cover and the title of the book. What do you think this book is going to be about?*
- *What does water have to do with clouds or fog?*
- *What questions do you have before we start reading?*

## Skimming and Scanning

Use this time to introduce or review your lesson focus strategies and/or skills.

Suggested skimming and scanning prompts:

- *Look at the glossary. Are there words in the glossary that are unfamiliar to you? Which ones?*
- *Look at the table of contents. What do you think we'll read about in the chapter, "Wasting and Pollution"?*
- *Take a minute and look at the pictures. Can you explain what is happening in any of them?*

## Reading the Book

While students are reading either independently or with a partner, circulate, monitor, and provide necessary support to those who need it. Have early finishers reread the text or mark a page they found to be interesting, confusing, or difficult to read.

## After Reading the Book

Open the conversation with a question that relates to the comprehension strategy of visualizing and summarizing information. After a brief conversation about the contents of the book, move to questions that support your lesson focus.

Suggested after-reading content connection questions:

- *Why do you think the author wrote this book?*
- *Water covers three-quarters of the Earth. Where do you picture there being no water?*
- *Explain why water is never "new" water.*
- *Where else have you seen condensation, besides on a drinking glass?*
- *What are some things you may see if you visited an area affected by a drought?*
- *What are some ways we can conserve water?*

Suggested after-reading lesson focus prompts:

- *I noticed (student's name) using (reading strategy) while reading. Did it help with your reading? (Repeat this question to highlight different reading strategies or skills used by students.)*
- *What text features helped you? Tell us about them.*
- *Were you aware when you did not understand a piece of the text?*
- *How did self-monitoring help you? Did you find yourself having to reread parts of the text to gain more understanding?*
- *What specific parts did you find hard to understand?*



# Lesson

## Reading Applications

## Show What You Know — page 102

For a formative assessment, have students answer the questions on this reproducible, which can also be found at the end of *The Wonderful Water Cycle*. Answers can be found in the book.

**Into the Book — Part 1 — page 103**

Have students visualize concepts through art in this activity.

**Into the Book — Part 2 — page 104**

Use this activity to help students identify main ideas and write summaries.

## Writing Connection

**Share What You Learned — page 105**

Have students include a main idea and relevant details in a short water-conservation proposal. Extend the activity by doing one of the proposed activities as a class and having students reflect in writing.

## Academic Vocabulary

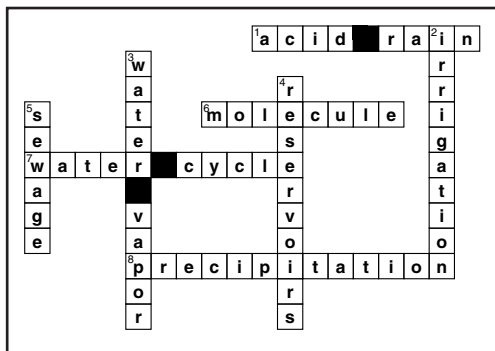
**Word Wise — page 106**

Have students write synonyms or antonyms for the listed vocabulary words and explain the connection and meanings.

## Word Wiser — page 107

Have students complete the crossword puzzle to become more familiar with vocabulary words and their meanings.

## Answers



## Science Connection

## Condensation and Frost — page 108

With glass jars, ice, and salt, help students make condensation in groups, then do book and Internet research to figure out how they did it. As always, use a “restricted” or “safe” setting for Internet research.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Show What You Know

**Directions:** After reading *The Wonderful Water Cycle*, answer these questions.

1. Name at least three uses for water.

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2. How does water change from one form to another?

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3. Explain what you can do to conserve our water supply and keep it clean.

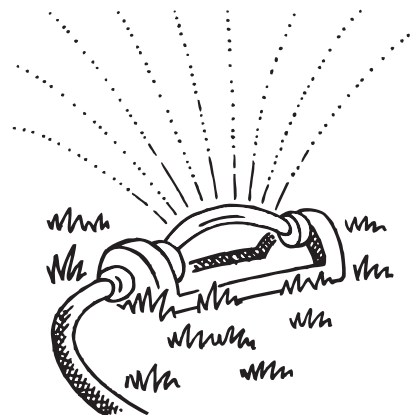
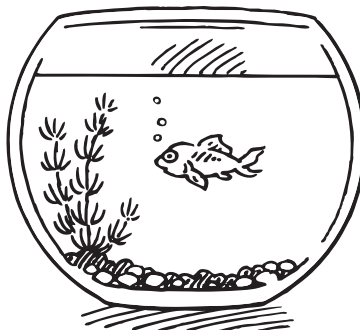
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Name \_\_\_\_\_ Date \_\_\_\_\_

## Into the Book — 1

**Directions:** Visualizing information is an important reading skill. Show that you can visualize the following ideas by drawing or describing an example in each box. Don't leave any of the boxes empty. Draw or describe:

**1. three examples of fresh water**

**2. four examples of pollution**

**3. three examples of water conservation**

Name \_\_\_\_\_ Date \_\_\_\_\_

## Into the Book — 2

**Directions:** For each of the pages or groups of pages listed below, identify the main idea. Then write a summary of the information about the main idea given on those pages. Each summary should be one sentence long.

1. Page 9 Main Idea: \_\_\_\_\_

Summary: \_\_\_\_\_

2. Page 10 Main Idea: \_\_\_\_\_

Summary: \_\_\_\_\_

3. Page 14 Main Idea: \_\_\_\_\_

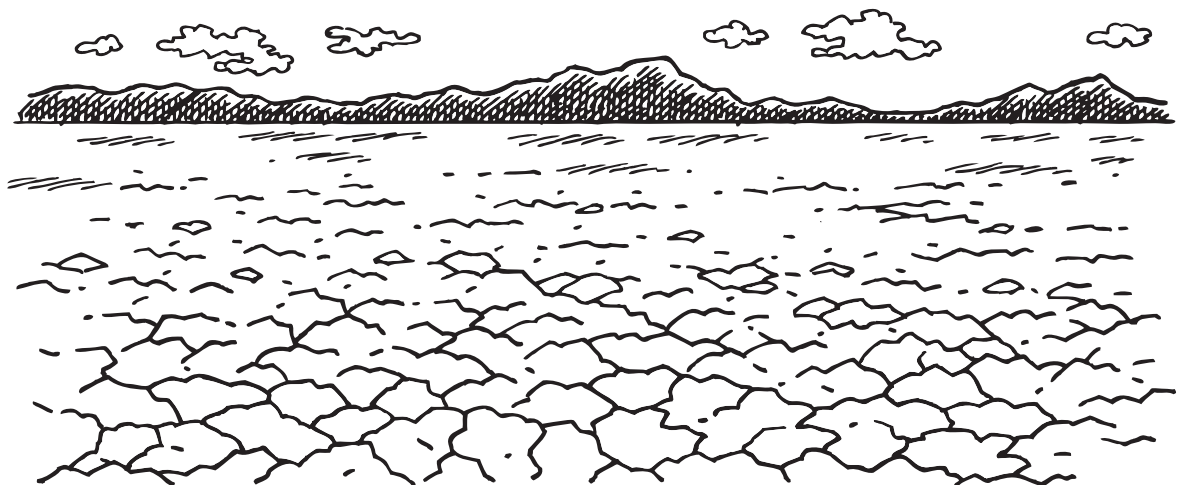
Summary: \_\_\_\_\_

4. Page 16 Main Idea: \_\_\_\_\_

Summary: \_\_\_\_\_

5. Pages 20–21 Main Idea: \_\_\_\_\_

Summary: \_\_\_\_\_

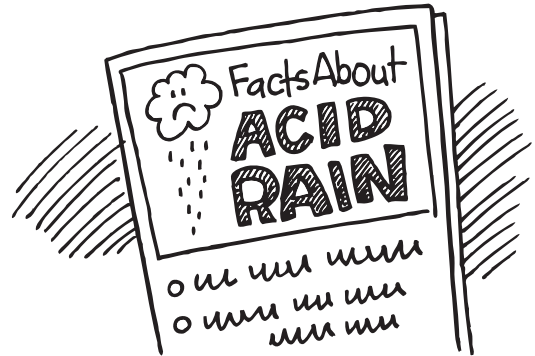


Name \_\_\_\_\_ Date \_\_\_\_\_

## Share What You Learned

**Directions:** Sometimes, people need to use their writing skills to help them make a difference. What if other students in your class want to volunteer to keep water clean? Choose a conservation activity from the box or think of another one, then write a proposal. In your proposal, include:

- ☐ An introduction and conclusion
- ☐ A main idea
- ☐ Details about the activity
- ☐ What will be needed to organize it



A class water-conservation chart with goals and awards

Beach or lakeshore cleanup

An informational brochure about acid rain

A letter-writing campaign about an environmental measure

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Name \_\_\_\_\_ Date \_\_\_\_\_

## Word Wise

**Directions:** Synonyms and antonyms are words with similar and opposite meanings to a specific word. For each word below, come up with a synonym or an antonym. Then circle the word synonym or antonym and explain the word meanings.

1. conserve \_\_\_\_\_ synonym antonym

\_\_\_\_\_

2. recreation \_\_\_\_\_ synonym antonym

\_\_\_\_\_

3. matter \_\_\_\_\_ synonym antonym

\_\_\_\_\_

4. evaporate \_\_\_\_\_ synonym antonym

\_\_\_\_\_

5. condense \_\_\_\_\_ synonym antonym

\_\_\_\_\_

6. vapor \_\_\_\_\_ synonym antonym

\_\_\_\_\_

7. agriculture \_\_\_\_\_ synonym antonym

\_\_\_\_\_

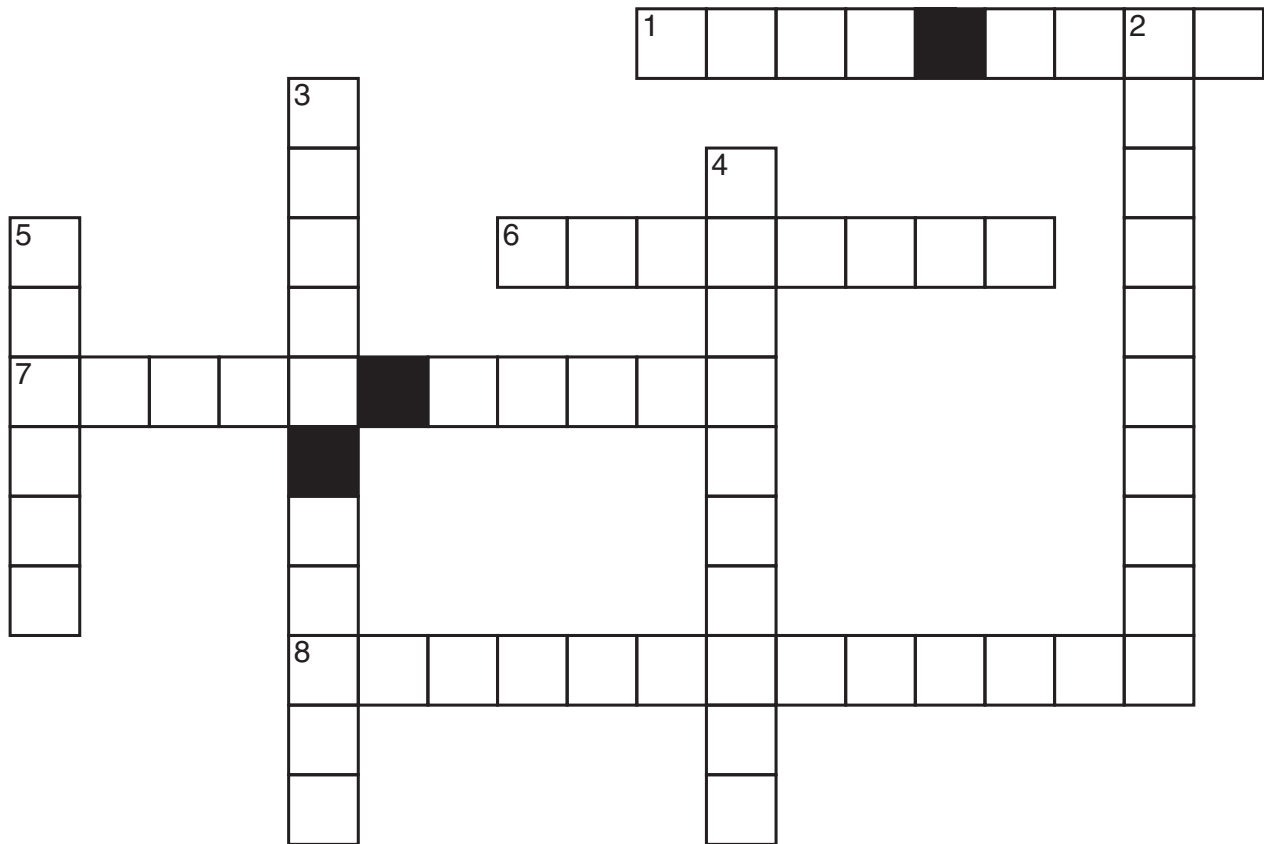
8. cycle \_\_\_\_\_ synonym antonym

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

# Word Wiser

**Directions:** Complete the crossword puzzle, using the meaning clues below for help.



## Across

1. Chemicals from pollution attached to water vapor
6. A small unit of matter
7. Water's continuous journey through different states of matter
8. Liquid or frozen water falling from the sky

## Down

2. Bringing water to dry land
3. Water in the form of a gas
4. Places where rainwater is collected for later use
5. Wastewater carried away by pipes and treated

Name \_\_\_\_\_ Date \_\_\_\_\_

# Condensation and Frost

**Directions:** Make condensation and frost. Then explain how you did it.

Materials	Making Condensation
Glass Jars with Lids (two per group) Ice Salt	Each group should have two glass jars with lids. Fill both jars most of the way with ice. Add a few spoonfuls of salt to one jar and fasten the lids on the jars. Observe what happens and complete the tasks below.

1. Observations — Describe what happened to each jar.

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2. Organizing Information — Fill out the chart below in groups or as a class.

## Condensation

I already knew . . .	I learned from the reading . . .	I'd like to learn . . .
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Research — Do research in books and online to find the answers to your questions. Write your information and where you found it on the lines below.

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