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CALIFORNIA CONTENT STANDARDS
ELA: RC.2.1, RC.2.5, RC.2.6, RC.2.7, W.1.1, LC.1.1
Science: Sci.1.a, Sci.1.b, Sci.1.d, Sci.2.b, Sci.3.a

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CALIFORNIA CONTENT STANDARDS
ELA: RC.2.1, RC.2.5, RC.2.6, W.1.1, LC.1.1
Science: Sci.1.f, Sci.3.e

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CALIFORNIA CONTENT STANDARDS
ELA: RC.2.1, RC.2.6, LC.1.1
Science: Sci.3.a, Sci.3.b, Sci.5.c

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- BIOGRAPHY — Matthew Henson: First to the North Pole
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CALIFORNIA CONTENT STANDARDS
ELA: RC.2.1, RC.2.6, RC.2.7, LC.1.1
Science: Sci.1.e, Sci.1.f, Sci.5.c

SAMPLE

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, LC.1.1
Science: Sci.3.a, Sci.3.b, Sci.5.c

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, LC.1.1
Science: Sci.1.b, Sci.3.a, Sci.3.b, Sci.3.c, Sci.3.d, Sci.5.c

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, LC.1.1
Science: None

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, W.1.1, LC.1.1
Science: Sci.1.d, Sci.5.c

SAMPLE

The Moon

DRAW CONCLUSIONS

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, LC.1.1
Science: Sci.1.a, Sci.2.b, Sci.4.b, Sci.4d

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DRAW CONCLUSIONS

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, LC.1.1
Science: Sci.1.b, Sci.3.a, Sci.3.b, Sci.3.d, Sci.3.e

Rocks and Minerals

FACT AND OPINION

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Science Reading Selections 42
- BOOK CHAPTER — Diamonds: Nature's Sparklers
- WEBSITE — Extreme Rocks: Ask Dr. Stone
- MAGAZINE ARTICLE — A Road for Giants?
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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, LC.1.1
Science: Sci.1.e, Sci.1.f, Sci.5.b, Sci.5.c

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FACT AND OPINION

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- LETTER TO THE EDITOR — Don't Close the Animal Shelter!
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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, W.1.1, LC.1.1
Science: Sci.3.a, Sci.5.b, Sci.5.c

SAMPLE

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, LC.1.1

Science: Sci.1.a, Sci.1.b, Sci.3.a, Sci.3.b, Sci.3.c, Sci.3.d

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, LC.1.1

Science: Sci.1.d

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, LC.1.1

Science: Sci.3.a, Sci.3.b, Sci.3.c

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CALIFORNIA CONTENT STANDARDS

ELA: RC.2.1, RC.2.6, RC.2.7, W.1.1, LC.1.1

Science: Sci.1.a, Sci.1.b

SAMPLE

Correlation to the Grade 3 California Content Standards

This correlation chart shows how ***Keep on Reading Science! Comprehension for Content-Area Literacy*** is aligned to the California Content Standards.

English-Language Arts Content Standards	
READING	
RC.2.0 Reading Comprehension	
Structural Features of Informational Materials	
RC.2.1	Use titles, tables of contents, chapter headings, and glossaries to locate information in text.
Comprehension and Analysis of Grade-Level-Appropriate Text	
RC.2.5	Distinguish the main idea and supporting details in expository text.
RC.2.6	Extract appropriate and significant information from the text, including problems and solutions.
RC.2.7	Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game).
Structural Features of Literature	
WRITING	
W.1.0 Writing Strategies	
Organization and Focus	
W.1.1	Create a single paragraph.
WRITTEN AND ORAL ENGLISH LANGUAGE CONVENTIONS	
LC.1.0 Written and Oral English Language Conventions	
Sentence Structure	
LC.1.1	Understand and be able to use complete and correct declarative, interrogative, imperative, and exclamatory sentences in writing and speaking.
Science Content Standards	
PHYSICAL SCIENCES	
Sci.1 Energy and matter have multiple forms and can be changed from one form to another. As a basis for understanding this concept:	
Sci.1.a	Students know energy comes from the Sun to Earth in the form of light.
Sci.1.b	Students know sources of stored energy take many forms, such as food, fuel, and batteries.
Sci.1.d	Students know energy can be carried from one place to another by waves, such as water waves and sound waves, by electric current, and by moving objects.
Sci.1.e	Students know matter has three forms: solid, liquid, and gas.
Sci.1.f	Students know evaporation and melting are changes that occur when the objects are heated.
Sci.2 Light has a source and travels in a direction. As a basis for understanding this concept:	
Sci.2.b	Students know light is reflected from mirrors and other surfaces.
LIFE SCIENCES	
Sci.3 Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:	
Sci.3.a	Students know plants and animals have structures that serve different functions in growth, survival, and reproduction.
Sci.3.b	Students know examples of diverse life forms in different environments, such as oceans, desert, tundra, forests, grasslands, and wetlands.
Sci.3.c	Students know living things cause changes in the environment in which they live: some of the changes are detrimental to the organism or other organisms, and some are beneficial.
Sci.3.d	Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations.
Sci.3.e	Students know that some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.
EARTH SCIENCES	
Sci.4 Objects in the sky move in regular and predictable patterns. As a basis for understanding this concept:	
Sci.4.b	Students know the way in which the Moon's appearance changes during the four-week lunar cycle.
Sci.4.d	Students know that Earth is one of several planets that orbit the Sun and that the Moon orbits Earth.
INVESTIGATION AND EXPERIMENTATION	
Sci.5 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:	
Sci.5.b	Differentiate evidence from opinion and know that scientists do not rely on claims or conclusions unless they are backed by observations that can be confirmed.
Sci.5.c	Use numerical data in describing and comparing objects, events, and measurements.

SAMPLE

Student Books	Fantastic Light	A Look At Landforms	Pouch Power	Winter's Wonders	How Fast?	Animal Talk	Into the Swamp	Fire!	The Moon	How Do Animals Adapt?	Rocks and Minerals	Hot Dog!	How Do Plants Adapt?	Lightning!	Animal Homes	Amazing Buildings
Comprehension Strategies and Skills	**Main Idea and Detail**		**Sequence**		**Compare and Contrast**		**Summarize**		**Draw Conclusions**		**Fact and Opinion**		**Cause and Effect**		**Problems and Solutions**	
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SAMPLE

California Content Standards

English Language Arts	
RC.2.1	Use titles, tables of contents, chapter headings, and glossaries to locate information in text.
RC.2.6	Extract appropriate and significant information from the text, including problems and solutions.
RC.2.7	Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game).
LC.1.1	Understand and be able to use complete and correct declarative, interrogative, imperative, and exclamatory sentences in writing and speaking.

Science	
Sci.1.e	Students know matter has three forms: solid, liquid, and gas.
Sci.1.f	Students know evaporation and melting are changes that occur when the objects are heated.
Sci.5.c	Use numerical data in describing and composing objects, events, and measurements.

Introduce the Book

Activate Prior Knowledge

- Have students preview the cover and title page. Ask them to tell what they know about ice and snow.
- Preview the table of contents with students. Introduce the nonfiction genres in the book: **brochure**, **biography**, **newspaper article**, **how-to article**, and **textbook lesson**. Have students share their responses to the questions.

Sequence in Science (pages 4–5)

- **Comprehension: Sequence** Explain that **sequence** is the order in which events or actions happen. Explain that a *process* is a set of actions for making or doing something.
- **Numbers, Arrows, and Sequence** Have students study the organizer on page 4. Explain that the organizer shows a process. Ask students what each part of the process is called. (a step) Point out the numbers and arrows and explain the function of each—to show sequence and where to go to find the next step. Ask students what could go wrong if you do not follow the sequence of steps in a process correctly.
- **The Reading Sample** Have students study the reading sample on page 5. Ask them to identify the step that is done first. (Fill a plastic glass with 1 cup of water.) Explain that steps can have more than one action. Ask the students how many actions are in Step 3. (two—labeling and placing the glasses in the freezer)

Science Reading Selections

Ice Hotel Alaska (pages 6–7)

Summary This brochure promotes Ice Hotel, a hotel made of ice, in Alaska.

Genre A **brochure** is a booklet advertisement. Ask students what the brochure advertises (Ice Hotel) and what its creators want readers to do (stay at the hotel).

Vocabulary Preteach the vocabulary words *entire*, *cozy*, and *Northern Lights*.

Monitor Comprehension Encourage students to answer the **sequence** question in the Think bubble as they read the selection. (Page 7: It is shown by time of day—hour, minute, before noon, after noon.)

Think & Write Have students use separate paper to write responses to these comprehension questions. Discuss responses.

1. learn how to drive a dogsled and drive it back to the airport
2. The ice could melt while you were using a hair dryer.

Support English-Language Learners Explain that a "*stay of a lifetime*" is a stay that is different from any other that people will experience in their life.

SAMPLE

Matthew Henson: First to the North Pole (pages 8–11)

Summary This biography presents the life of Matthew Henson, the "real" first man to reach the North Pole.

Genre A **biography** is the story of a person's life, written by someone else. Ask students whom this biography is about. (Matthew Henson)

Vocabulary Preteach the vocabulary words *navigate, Arctic*, and *Inuit*.

Monitor Comprehension Encourage students to answer the **sequence** questions in the Think bubbles as they read the selection. (**Page 9: The year when an event happened and the age of Henson. Page 10: Peary and Henson try to reach the North Pole several times and fail. Page 11: People recognized him as a hero and buried him at Arlington National Cemetery.**)

Think & Write Have students use separate paper to write responses to these comprehension questions. Discuss responses.

1. **about 12 years**
2. **years, ages, and dates**
3. **hope, discouragement, courage**

Support English-Language Learners Explain that one way Americans recognize war heroes and other kinds of heroes is by burying them in Arlington National Cemetery, which is in Washington, D.C.

Snow Blankets Victoria (pages 12–15)

Summary This newspaper article presents information about a winter storm in a South Texas city.

Genre A **newspaper article** is a short nonfiction work in a newspaper. It informs readers about an important event in the present time. Ask students what makes this event important. (**South Texas rarely receives that much snow.**)

Vocabulary Preteach the vocabulary words *snowstorm*, *frigid*, and *predict*.

Monitor Comprehension Encourage students to answer the **sequence** questions in the Think bubbles as they read the selection. (**Page 12: December 24, which was yesterday at the time the article was written. Page 13: Warm. Page 14: The first sentence in the paragraph.**)

Think & Write Have students use separate paper to write responses to these comprehension questions. Discuss responses.

1. ***Before, The Day of, After***
2. **People might have driven on unsafe roads. Schools and businesses might have closed.**
3. **covered as if with a blanket**

Support English-Language Learners Explain that a *wonderland* is a place with amazing things. Ask students what things might make a place a winter wonderland.

Scissors + Paper = Snow (pages 16–17)

Summary This how-to article teaches how to make paper snowflakes.

Genre **How-to articles** most often present a process for doing or making something. They may have sections with headings. Ask students to identify the two basic sections of this article. (**What You Need and the steps to follow**)

Vocabulary Preteach the vocabulary words *thirds*.

Monitor Comprehension Encourage students to answer the **sequence** question in the Think bubble as they read the selection. (**Page 17: Drip glue on the snowflake, shake glitter over it, shake off the loose glitter, and let the glue dry.**)

Think & Write Have students use separate paper to write responses to these comprehension questions. Discuss responses.

1. **Fold the paper in half so that opposite corners touch.**
2. **two**

Support English-Language Learners Show students some *glitter* and explain that it is a material used to decorate. To assess students' comprehension of English, have them follow the steps to make a snowflake on their own.

SAMPLE

The Science Behind Snow (pages 18–21)

Summary This textbook lesson explains snow formation as part of the water cycle.

Genre A **textbook lesson** teaches students about a particular subject area, such as science. It contains features such as diagrams. Ask students to find the diagram in this lesson and tell what it shows. (snow and the water cycle)

Vocabulary Preteach the vocabulary words *cycle, vapor, evaporation,* and *condenses.*

Monitor Comprehension Encourage students to answer the **sequence** questions in the Think bubbles as they read the selection. (Page 19: The seasons. Page 20: The water becomes water vapor.)

Think & Write Have students use separate paper to write responses to these comprehension questions. Discuss responses.

1. In Part 3, water changes from a liquid to a solid. In Part 4, it changes from a solid to a liquid.
2. In both, a liquid changes to a gas.
3. Snow is colder than rain, so it is a solid.

Support English-Language Learners Explain that *soil* is another word for dirt. Explain that a *clump* is a group of objects.

Science Connections

Think Like a Scientist (page 22)

- Explain that the **organizer** can help students show steps of a process and their **sequence**. Review the organizer with students. Explain that it shows the steps to take when preparing for a blizzard. Point out the different steps and have students explain why the sequence is important.
- **Organize It!** Distribute the blackline master on page 17 of this Teacher Guide. Explain that it is organized in the same way, but students will use it to record the steps in Henson's life that prepared him for reaching the North Pole. Help students brainstorm steps in Henson's life that prepared him for his achievement. (Step 1: learned how to navigate ships. Step 2: learned how to repair things. Step 3: met Robert Peary and joined him. Step 4: went to Greenland to practice living in snow and ice. Step 5: set out for the North Pole with Robert Peary but failed several times. Step 6: finally reached the North Pole.)

Write Like a Scientist (page 23)

- Read the directions and the writing prompt with students. Point out the Writer's Checklist section and review each item with students. Be sure students understand what each requirement entails.
- Work with students to write their steps as complete sentences. Suggest that students use dates and ages in their steps. (First, Matthew Henson learned how to navigate ships. Then, he learned how to repair things. In 1887, he met Robert Peary and began to travel with him. He went to Greenland with Peary to practice living in snow and ice. He and Peary set out for the North Pole several times, but they failed to reach it. When Henson was 41, he and Peary tried again. Henson reached the North Pole in 1909.)

Science Close-Up (page 24)

Test Yourself!

- Discuss the bar graph, explaining that it shows the amount of snowfall that some U.S. cities receive each year. Have students preview the questions and discuss how to figure out the answers. Then have students answer the questions on separate paper. Discuss responses.
  1. Syracuse, New York
  2. West Palm Beach, Florida

Fun with Science! Salt and the City

- The amount of water is an approximation. Pie plates should be at least halfway full. You may want to have students place the plates on a cookie sheet or other flat surface to avoid spills. Remind students to record their observations on separate paper. (The salted ice started to melt before the plain ice.)
- Salt lowers the temperature at which water freezes. Help students apply what they've learned to explain why people put salt on roads, steps, and sidewalks during winter weather. (The salt makes the snow and ice melt.)

SAMPLE

Name _____

Organize It!

Look back at "Matthew Henson: First to the North Pole" on pages 8–11. Complete the organizer below. Write the steps that prepared Matthew Henson for reaching the North Pole. Be sure to write the steps in sequence.

Write the first step here.

1

2

Use the numbers and arrows to write the steps in **sequence**.

3

4

Write the last step here.

5

6

SAMPLE

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