

My students don't comprehend the reading in their science books.

I need to stress reading as well as science in my classroom today.

ALL my students need to pass our state science test.

Our students struggle with science vocabulary.

Sound familiar? Look inside for an all **NEW** supplemental science reading program that uses SRA's proven method for supporting science reading and vocabulary development.

SRA

Science Labs



For grades
6 and up

**Mc
Graw
Hill**

SRA



Do you remember the
SRA Reading Labs®
from your school days?

Today, it's all about
reading SCIENCE!

On the enclosed samples
you'll find two science
cards of different reading
levels from each of these
SRA Science Labs:

- Life Science
- Earth Science
- Physical Science

SRA Science Labs are also
available for grades 3–5.
For additional information visit:
www.SRAonline.com

A Science Supplement that is Easy to Use!

Three New SRA Science Labs provide a change of pace.

- Science topics are aligned to state and national standards.
- Each SRA Science Lab contains 180 Science Cards covering key science concepts and vocabulary.



Flexible

Provides core science content in an **alternate reading format**

- Science content area reading for ALL students
- Individualized student practice
- Full year review of science in a limited time
- Quick test review
- Individualized assessment opportunities

Adaptable

Develops science **content reading skills** in a variety of classroom settings

- Science classrooms
- Reading support programs
- Intervention programs
- Summer School
- After school programs

Help Students Read the Science

- **Students learn and retain core science ideas and vocabulary** by working independently at their own reading levels.
- **Students build confidence and increase comprehension** by practicing with test questions that are modeled after standardized tests.

Readability and Vocabulary

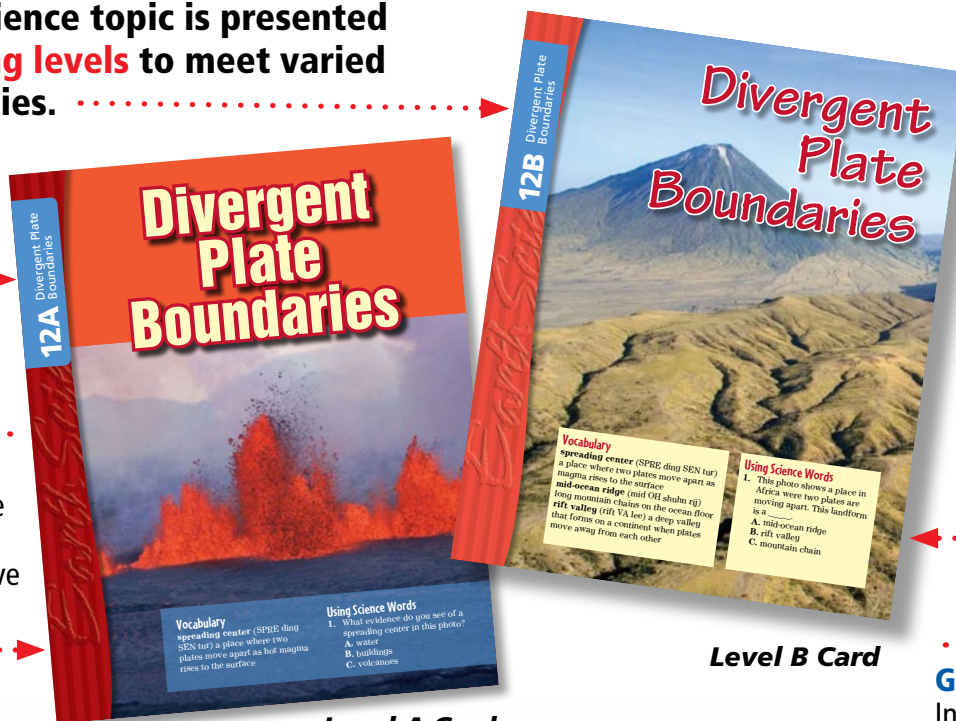
Every core science topic is presented at **two reading levels** to meet varied student abilities.

Vocabulary

Key science terms are presented as a pre-reading aid to improve comprehension.

Highlighted Terms

Science vocabulary is used in context to develop a strong understanding of the language of science.



Pre-reading
Using Science Words engages students to build background knowledge before reading.

Guided Reading
In-text comprehension questions help struggling readers focus on the main ideas to improve their comprehension.

1 The outer layer of Earth is the crust. Under the crust is Earth's mantle. The crust and upper part of the mantle are broken into large pieces called plates. Plates can move in different ways. Some plates slide sideways past each other. Some plates move toward each other. Some plates move away from each other. Places where plates move away from each other are called divergent plate boundaries.

2 Most divergent plate boundaries are on the ocean floor. In the middle of the boundary is an area called the spreading center. A **spreading center** is a place where magma, or molten rock, comes to Earth's surface. As magma cools, it becomes solid rock. This rock forms new ocean crust.

3 This crust becomes part of a large mountain chain under the ocean. These mountain chains are called **mid-ocean ridges**. The best-known mid-ocean ridge is probably the Mid-Atlantic Ridge. This mountain chain is about 10,000 kilometers long. It runs down the middle of the Atlantic Ocean.

4 The Mid-Atlantic Ridge can be seen in Iceland, a small country in the North Atlantic Ocean. It has many volcanoes. Spreading along the Mid-Atlantic Ridge affects Iceland. First, spreading is causing the country to split in half. Second, magma comes to the surface through Iceland's volcanoes. Finally, heat from the magma warms water near the surface and forms hot springs.

5 Magma is very hot. Because of this, many scientists used to think that nothing could live near mid-ocean ridges. But in the 1970s, openings, or vents, were found along the ridge. Many organisms were discovered living near these deep-sea vents.

6 The vents along the mid-ocean ridges are called smokers. Water with many nutrients pours out of smokers. Smokers look like underwater chimneys. Giant tube worms, crabs, clams, and other organisms use the nutrients to survive.

7 Some divergent plate boundaries form on continents. These are called rifts. A rift forms where the crust gets stretched. As the land stretches, it gets weaker and sags. A trough, or valley, called a **rift valley** forms. In time, ocean water fills the valley.

8 Rifts are forming in several places on Earth. Rifting has caused Saudi Arabia to move away from Africa. The valley that formed is the East Rift Valley. The water that filled the valley is the Red Sea.

9 What causes plates to diverge, or move apart? Scientists think most plates diverge because of convection. Convection is a process that transfers energy from one place to another. In the mantle, convection takes place as hot material rises, cools off, and then sinks. This movement of material is called a convection current. Convection currents cause plates to move.

10 What causes plates to diverge? **11** What causes plates to diverge?

12 What causes plates to diverge?

13 What causes plates to diverge?

14 What causes plates to diverge?

15 What causes plates to diverge?

16 What causes plates to diverge?

Word Study

Word Usage One good way to learn new words is to use them. Replace common words with more precise terms. Use science terms when you need a specific idea.

Look at the number in parentheses. Find that paragraph in the reading with the same number. Then find the best term to fill in the blank. Write the term.

7. Large pieces of Earth's crust and upper mantle are called _____. (1)
8. Plates move away from each other at _____ boundaries. (1)
9. _____ rises to the surface along a spreading center. (2)
10. A mid-ocean ridge is a mountain _____ on the ocean floor. (2)
11. _____ is responsible for Iceland's volcanoes. (4)
12. The temperature near deep-sea _____ is very hot. (6)
13. Underwater smokers spew rich _____ into the nearby water. (6)
14. A _____ is where Earth's crust is stretched. (7)
15. Convection _____ move both matter and energy. (9)
16. Divergence is caused by _____ in Earth's mantle. (9)

Inside Level A Card

They Will See on Tests!

1 The rocks of Earth's crust and upper mantle are broken into huge slabs called tectonic plates. These hard plates move slowly over Earth's surface in different ways. Plates move sideways past each other at sliding plate boundaries. Plates move toward each other at convergent plate boundaries. Plates move away from each other at divergent plate boundaries.

2 Most divergent plate boundaries are on Earth's ocean floors. In the middle of these boundaries is an area called the spreading center. A **spreading center** is a place where hot, liquid rock material, or magma, comes to the surface. When this liquid rock cools, it hardens to form new ocean crust. Over very long periods of time, the crust builds up. This build-up forms gigantic underwater mountain chains known as **mid-ocean ridges**.

3 The best-known mid-ocean ridge is probably the Mid-Atlantic Ridge. As its name suggests, much of this 10,000-kilometer long mountain chain lies along the middle of the Atlantic Ocean. A small part of the chain, however, comes to the surface in Iceland, a country in the northern Atlantic. Spreading along the Mid-Atlantic Ridge has had several effects on Iceland. Spreading is causing Iceland to split in half! The spreading is also the reason for many active volcanoes and hot springs in this country.

4 In addition to being places where new crust forms, divergent plate boundaries are also biologic hot spots. Magma that rises along a mid-ocean ridge can reach 1000°C. These high temperatures caused many scientists to conclude that these parts of Earth's oceans were lifeless. In the late 1970s, however, giant tube worms, huge clams and crabs, and mussels were discovered in and near vents along the ocean ridges.

5 The vents along the ridges were named smokers. They were given this name because vents look like chimneys as they spew black, white, or even gray fluids into the water. The fluids contain important nutrients for the many life forms that live near the hot vents.

6 Some divergent plate boundaries are on Earth's continents. These areas are called rifts. At these places, plates rift, or move apart. They form a deep depression called a **rift valley**. Rifting is taking place in East Africa. The East Rift Valley is an area that formed when Saudi Arabia rifted from the rest of Africa. The water filling the valley is the Red Sea—a future ocean. This valley and sea are shown in the photograph on the front of this card.

7 What causes tectonic plates to diverge? Scientists think that convection in the upper mantle is the reason that plates move. Convection is a process that transfers heat from one area to another as the result of differences in density.

8 All magma is very hot. However, it is cooler right under the plates and hotter further down away from the plates. Hot magma is less dense than cool magma, so it rises toward the surface. There, it begins to cool. As magma cools, it becomes more dense and sinks down away from the surface.

9 As magma repeatedly heats and cools, it moves in a circular pathway called a convection cell under the plate. These cells are called convection currents. Convection currents are thought to cause some of Earth's plates to move away from each other. Convection currents also may drive the motion of convergent tectonic plates, where plates come together.

Comprehension

Write the letter of the best answer.

- Plates move away from each other at _____.
a. divergent boundaries
b. convergent boundaries
c. sliding boundaries
- Underwater mountain chains are known as _____.
a. spreading centers
b. mid-ocean ridges
c. rift valleys
- Over time, a rift valley will fill with _____.
a. magma
b. smokers and living organisms
c. ocean water
- New crust forms when _____.
a. smokers spew water
b. molten rock material cools
c. hot magma rises
- _____ cause most plate motion.
a. Smokers
b. Rift valleys
c. Convection currents

Word Study

Nouns The words in **bold type** are nouns. A noun indicates a person, place, or thing.

The **doctor** smiled at **Joe**. (persons)
Jungles in **Peru** are hot. (places)
The **rocket** needs **fuel**. (things)

Prefixes A prefix is a syllable that can be added to the beginning of a word to form a word with a different meaning.

con + **vergent** = convergent
the prefixes **con** and **com** mean together
di + **vergent** = divergent
the prefix **di** means two

Read the definitions below. Add a prefix to each word to make a new word with the stated meaning. Write the new word.

- two terminals: ____ode
- talk together: ____verse
- two different forms: ____morphic
- bring together: ____nect
- break into two parts: ____vide

Each phrase below contains one noun. Write the noun.

- plates move slowly
- this liquid rock cools
- Iceland to split apart
- many scientists to conclude
- rifted from the rest of Africa

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Comprehension

Students monitor their comprehension of the reading.

Word Study Skills

Word Study exercises on every card reinforce language skills using science examples to strengthen reading in the content area and science vocabulary development.

Inside Level B Card

Standardized Test Practice

Help students learn how to tackle difficult science tests.

Test Strategies

Test Tips help all students build test-taking strategies.

Using Visuals

Charts, graphs, and diagrams give students practice interpreting graphics modeled after high-stakes tests.

Extended Response

Writing prompts help students develop writing skills needed for test success.

Immediate Feedback

Answer Key Cards allow students to grade their own work.

Standardized Test Practice

Test Tip **Line Graphs** Look at line graphs to see how amounts or conditions change over time. When a line goes upward, it shows an increasing trend. A line going downward shows a decreasing trend.

Multiple Choice Use the graph to answer the questions.

Population Growth for Two Species with a Limited Food Supply

17. Which statement best describes what happened during the first four days?
A. Species B increased in number faster than Species A.
B. Species A increased in number faster than Species B.
C. Species A and Species B both steadily increased in number.
D. Nothing happened during the first four days.

18. About how many of Species B were in the container on Day 17?
A. 1
B. 17
C. 50
D. 150

19. Which resource were Species A and Species B most likely competing for?
A. air
B. food
C. water
D. sunlight

Standardized Test Practice

Test Tip **Diagrams** Read all of the labels in the diagram before answering the questions.

Multiple Choice Use the diagram to answer the questions.

17. What is shown at point C?
A. a rift valley
B. a sliding plate boundary
C. a mid-ocean ridge
D. a trench

What type of plate boundary is shown?
A. sliding plate boundary
B. divergent plate boundary
C. mantle boundary
D. convergent plate boundary

What do the circular arrows in the diagram represent?
A. deep sea smokers
B. rift valleys
C. mid-ocean ridges
D. convection cells

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Test Practice

Multiple Choice questions give students test practice on every card.

74A Key Card
Symbiotic Relationships

Using Science Words
1. B

Comprehension
2. c
3. b
4. c
5. c
6. c

Word Study
7. negative
8. help
9. die
10. gives off
11. takes
12. harmed
13. scatters
15. destroy
16. cause

Standardized Test Practice
17. A
18. C
19. C

Writing About Science
Describe the importance of bees to the human food supply.

74B Key Card
Symbiotic Relationships

Using Science Words
1. C

Comprehension
2. a
3. c
4. b
5. c
6. b

Word Study
7. unique
8. parasite
9. nectar
10. tries
11. commensalism
12. requires
13. is helped
14. activity
15. unusual
16. hurt

Standardized Test Practice
17. A
18. C
19. B

Writing About Science
Explain the difference between mutualism and parasitism.

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An Easy-to-Use Program



Differentiated Instruction

Meet the needs of **ALL** your students so they can succeed in science.

- Students work at different levels at the same time.
- Students work at their own pace.
- Separate *Key Cards* provide answers to foster independent work.
- Every student grades and records his or her own work.
- Students enjoy tracking and graphing their own progress.

for Your Classroom!



Teacher Support

Simple guidelines help you get students started without a lot of prep time.

- Pretests and posttests for diagnostics and assessment
- Outline of vocabulary and topics
- Classroom routine suggestions
- Hands-on labs for inquiry options
- Electronic or paper tests to meet your classroom needs

Technology

A Classroom Resource CD-ROM provides electronic options.

- Pretests and posttests automatically scored by the computer
- Assigns appropriate cards based on each student's pretest results
- Motivating science vocabulary games
- Classroom management and tracking tools
- Writing strategies in science

Empower Your Students to Succeed in Science!

- **Support** Struggling Readers
- **Encourage** Independent Work
- **Reinforce** Key Science Concepts
- **Increase** Vocabulary Retention
- **Prepare** Students for Science Testing



An excellent foundation program.

I would love to have this in my science classroom.

This kit is a teacher's dream come true.

The Science Lab concept is easy to use.

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Making the Difference

1-800-201-7103

Resources and ordering information at
SRAonline.com