Your Planet Needs You!

Written by Robert E. Slavin and Alli Hoge

This project was developed at the Success for All Foundation under the direction of Robert E. Slavin and Nancy A. Madden to utilize the power of cooperative learning, frequent assessment and feedback, and schoolwide collaboration proven in decades of research to increase student learning.
Targeted Treasure Hunt: 
Your Planet Needs You!

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INFORMATIONAL (6 DAY)

Your Planet Needs You!

Written by Robert E. Slavin and Alli Hoge

Summary

All life on Earth lives in a very thin layer around the planet called the biosphere. Problems such as pollution, overhunting, and habitat loss are harming the plants and animals in the biosphere. Your Planet Needs You! outlines some of these environmental problems and explains how some actions, such as conserving energy, using renewable energy sources, and recycling, can lessen the harmful impact on our biosphere.

Instructional Objectives

<table>
<thead>
<tr>
<th>Cycle 1</th>
<th>Reading</th>
<th>Word Power</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Text structure (TS)</td>
<td>Base word and ending</td>
<td>Write a friendly letter.</td>
</tr>
<tr>
<td></td>
<td>Students will identify the structure the author used to organize information in the text.</td>
<td>Students will break words into base words and endings and use the endings -ed, -less, and -able to help them read difficult words.</td>
<td>Students will write a letter to a friend about a problem facing the environment and actions we can take to help solve it.</td>
</tr>
</tbody>
</table>
ACTIVE INSTRUCTION
Timing Goal: 40 minutes

Rate New Vocabulary Words
- Display the vocabulary words.
- Have students copy the words into their journals and rate their knowledge of each as they arrive for class.

Success Review and Keeping Score
- Hand out team score sheets and team certificates to each team.
- Point to the Team Celebration Points poster, and celebrate super teams from the previous lesson.
- Remind students how to earn team celebration points. Remind them that team celebration points help them to become super teams.
- Guide teams to set new goals for the cycle.
- Have one student from each team write the team improvement goal on the team score sheet. Note each team’s improvement goal on the teacher cycle record form.
- Explain the challenge scores using the rubrics on the team folders.
- Explain the student assessments: fluency, the Student Test, and Adventures in Writing. Tell students there will be questions on the Student Test that are related to the reading skill, vocabulary, and the Word Power skill.

Team Cooperation Goal
- Point out that this lesson’s team cooperation goal is practice active listening, or choose one based on your class’s needs. Point out the related behavior on the team score sheet. Explain, or model, as necessary.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage
- Introduce the text, author, and reading objective.

This cycle we will read Your Planet Needs You! by Robert E. Slavin and Alli Hoge. As we read, we’ll think about text structure. When we say text structure, we mean the different ways that authors organize the information in texts. Good readers pay attention to text structure because it can tell us what important points the authors want us to know.
- Point out the strategy target on the team score sheet.
Point out that the text is informational, or have students explore the text to figure out that it is informational. Review how informational text differs from literature.

Tell students that they will use the TIGRRS process as they read, or ask them what process they use when they read informational text. Review the steps of the TIGRRS process: topic, intent of author, graphic organizer, read, reread, summarize.

Use a Think Aloud to model identifying the topic for the first step of TIGRRS by paging through the text. Point to various text features and note the text structure.

Let me think about the first step of TIGRRS. I know that the first step is to identify the topic of the text. I can look at the text to find clues that will help me identify the topic. The title of the text is Your Planet Needs You! When I look at the table of contents, I see words and phrases such as biosphere, pollution, energy sources, and go green. From these clues, I think the topic of the text is how to stop polluting and save energy.

Use the items below to build or activate background knowledge about the topic.

– Use Think-Pair-Share to have students discuss what the phrase “go green” means. Randomly select a few students to share.

– Ask students if they have ever seen trash or garbage in inappropriate places, such as on the side of the road or on a beach. Use Team Huddle to have students discuss whether they think throwing trash in random places is good for the environment. Use Random Reporter to select students to share.

– Share a few interesting or important facts about recycling. For example, explain that some items, such as plastic containers, will never break down and that these items can be reused and made into new products. If Internet access is available, show students some interesting products made from recycled materials at this website: mentalfloss.com/article/50227/13-products-made-using-recycled-materials.

Tell students the next step of TIGRRS. Use a Think Aloud to model identifying the intent of the author.

I have identified the topic of the text, so let me think about the second step of TIGRRS. I know that the second step is to determine the author’s intent, or why the author wrote the text. I should think about the topic of the text and try to figure out if the author wants to inform, entertain, or persuade me. I think the author wants to inform me about what we can do to stop pollution and save energy.
Tell students the next step of TIGRRS. Use a **Think Aloud** to model identifying the graphic organizer they will use to record information from the text.

We will use a graphic organizer to record important ideas. The next step in TIGRRS is to identify which organizer we will use. Let me take a look at the text. When I look at the headings and pictures, I see clues on some pages that the information is organized as main ideas and details. An idea tree would work well for making notes about this information. But on page 13, for example, it looks like the authors are giving directions, so for that text, I might use a sequence chain. I think I will use different types of graphic organizers depending on how the information is organized.

Establish the purpose for reading by telling students that they will learn more about the topic as they read.

**Vocabulary**

Ask teams to have teammates make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?.”

Use **Random Reporter** to have teams share one word they know and one word they need to study further. Award team celebration points.

Introduce the vocabulary words.

Review the routine for partner study of the vocabulary words, reminding students to review all the vocabulary words. Assign partners for this activity.

Use **Random Reporter** to follow up the team review. Model the use of strategies, and correct pronunciations when necessary.

Award team celebration points.

Review the procedures for students finding words in their daily reading and for adding words to the **Vocabulary Vault**.

<table>
<thead>
<tr>
<th>Word and Page Number</th>
<th>Identification Strategy</th>
<th>Definition</th>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>lack</strong> page 6</td>
<td>blend</td>
<td>being without</td>
<td><em>Lack</em> of food made the hungry raccoons raid our garbage cans.</td>
</tr>
<tr>
<td><strong>replaced</strong> page 8</td>
<td>base word + ending: replac(e) + ed</td>
<td>put something in place of</td>
<td><em>Josie replaced</em> the light bulbs that had burned out.</td>
</tr>
<tr>
<td><strong>prefer</strong> page 10</td>
<td>chunk: pre-fer</td>
<td>like better</td>
<td><em>I prefer</em> chocolate ice cream in a dish with walnuts on top.</td>
</tr>
<tr>
<td><strong>reduced</strong> page 11</td>
<td>base word + ending: reduc(e) + ed</td>
<td>made smaller or made less</td>
<td>The teacher <em>reduced</em> the number of pages we needed to read.</td>
</tr>
<tr>
<td>Word and Page Number</td>
<td>Identification Strategy</td>
<td>Definition</td>
<td>Sentence</td>
</tr>
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<td>----------------------</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>decay page 12</td>
<td>chunk: de-cay</td>
<td>rot or age</td>
<td>The bananas began to decay, so we did not eat them.</td>
</tr>
<tr>
<td>residents page 19</td>
<td>chunk: res-i-dents</td>
<td>people living in a place</td>
<td>Residents of the neighborhood were careful not to litter.</td>
</tr>
<tr>
<td>fumes page 19</td>
<td>base word + ending: fume + s</td>
<td>smoke or gases</td>
<td>We could smell the fumes coming from the factory.</td>
</tr>
<tr>
<td>renewable page 20</td>
<td>base word + ending: renew + able</td>
<td>able to get again</td>
<td>Membership in the nature club is renewable, so I join every year.</td>
</tr>
</tbody>
</table>

**Using the Targeted Skill (Introduction and Definition)**

- Introduce the skill and its importance in informational text.

  Our skill for this cycle is identifying text structures. When we think about the structure of a text, we are thinking about the way the author has organized information. Authors organize information in different ways depending on how the ideas are related to one another. Paying attention to text structure is important because it can tell us the main points that the authors want us to know.

- Display the following text structures chart.
### Text Structure Chart

<table>
<thead>
<tr>
<th>Text Structure</th>
<th>Signal Words</th>
<th>Example Question</th>
<th>Example Graphic Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main idea and supporting details</td>
<td>Main idea is usually stated in a topic sentence. The topic sentence is often the first or last sentence of a paragraph. Ask: What are all the details talking about?</td>
<td>Explain the main idea of this section. Give supporting details or evidence from the text.</td>
<td>Idea tree</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>Because, cause, reason, result, why, lead to, effect, happens, due to</td>
<td>What caused people to move west in the mid 1800s?</td>
<td></td>
</tr>
<tr>
<td>Compare and contrast</td>
<td>Like, unlike, similar, different, although, but, contrast, compare, common</td>
<td>How were the homes on the plains different from the ones back east?</td>
<td>Homes in West Homes in East</td>
</tr>
<tr>
<td>Problem and solution</td>
<td>Problem, dilemma, issue, solution, question, answer, solve, deal with, struggle</td>
<td>How do plants solve the problem of living in a desert habitat?</td>
<td></td>
</tr>
<tr>
<td>Sequence</td>
<td>First, begins, began, starts, started, steps, when, second, next, later, during, while, then, third, after, last, finally, ends, now</td>
<td>What happens after a law is passed by the Senate?</td>
<td>Event 1 Event 2 Event 3</td>
</tr>
</tbody>
</table>

- Explain that this chart shows different text structures. Briefly review the different types of text structures. Point out to students that they have seen these text structures in many different texts, so they are familiar with them. Explain that there are five main text structures that authors use.
Refer students to the text structure chart, and explain the signal words that are clues to sequence, cause-and-effect, compare-and-contrast, and problem-and-solution text structures. Also point out the graphic organizers that are suited to each text structure.

When we previewed Your Planet Needs You!, we predicted that the authors had organized some information in a main-idea-and-supporting details text structure. We decided that an idea tree would be the best graphic organizer to use. If the text structure changes, we would choose a different graphic organizer to make notes.

Sometimes an author may tell you about causes and effects. Signal words such as because, cause, reason, effect, happens, and why are clues that the author is using a cause-and-effect text structure. Looking at the chart, we can see that the best graphic organizer for this kind of text structure is a T-chart with the cause in one column and the effect in the other.

At other times, a passage is about what happened first and then what happened next. We call this a sequence text structure. Words such as first, begins, next, then, and finally signal this text structure. Looking at the chart, we can see that the best graphic organizer for this text structure is a sequence chain that shows each step or event in order.

Authors use another text structure when they compare and contrast. On the chart, you will see that signal words such as similar, different, like, and unlike are clues to tell you that the author is comparing and contrasting something. A Venn diagram often works best for comparing and contrasting.

Display the following passages. Tell students that they will practice identifying the text structures of these passages. Remind them to use the text structures chart and signal words to help them.

**Passage 1**
At the bottom of our planet lies a frozen desert—the continent of Antarctica. It is the coldest, driest, and windiest place on Earth. Temperatures are as low as -128 degrees Fahrenheit. This land at the South Pole is covered in ice hundreds of feet thick. In fact, 90 percent of the ice on Earth can be found in the Antarctic region.

**Passage 2**
During the winter, low temperatures cause the surface of the ocean surrounding Antarctica to freeze. When temperatures rise in the polar summer, the ice breaks up. The result is big floating chunks called ice floes. Also, due to warmer temperatures, giant pieces of ice break away from glaciers. They fall into the ocean and become icebergs, some as big as apartment buildings.
Passage 3
To set up a classroom aquarium, first assemble the materials. Next, fill the bottom of the tank with gravel, and add the water. After adding the water, press the roots of the water plants into the gravel. Then, install the bubbler. Finally, add the fish and snails.

- Read passage 1 aloud. Use Think-Pair-Share to have students use the chart to identify the text structure in passage 1 and explain their thinking. Randomly select students to share responses. The text structure is a main idea and supporting details. It tells main points describing Antarctica and supporting details for those points.

- Note on the chart that the graphic organizer that works best with this text structure is an idea tree. Display an idea tree.

Sample Graphic Organizer

Idea Tree

- Use Think-Pair-Share to have students identify the main idea from the passage to record on the idea tree. Randomly select students to share responses, and record them on the idea tree. The continent of Antarctica is the coldest place on Earth.

- Read passage 2 aloud. Use Think-Pair-Share to have students identify the text structure in passage 2 and explain their thinking. Randomly select students to share responses. It is a cause-and-effect text structure. There are signal words such as cause, result, and due to.
Display a cause-and-effect T-chart.

Use **Think-Pair-Share** to have students identify a cause and an effect from the passage. Randomly select students to share responses, and record them on the T-chart.

Note that the problem-and-solution text structure uses the same graphic organizer, a T-chart. In this text structure, the author tells about a problem and the possible solutions. The text might include signal words such as *problem* or *question* and *solution* or *answer*.

Read passage 3 aloud. Use **Think-Pair-Share** to have students identify the text structure in passage 3 and explain their thinking. Randomly select
students to share responses. *It is a sequence text structure. There are signal
terms such as first, next, after, and finally.*

**Sample Graphic Organizer**

**Sequence Chain**

- Display a sequence chain. Use **Think-Pair-Share** to have students identify
  the sequence steps from the passage. Randomly select students to share
  responses, and record them on the sequence chain.
- Tell students that they will identify the text structures as they read and reread
  the text.
Listening Comprehension

- Introduce the text, and remind students that it is informational. Remind them that you will use the TIGRRS process as you read.
- Remind students of the topic, intent of the author, and the graphic organizer.
- Tell students that you will start reading the text and applying the skill. Tell them that you will also record the important ideas on the graphic organizer.
- Read pages 2 and 3 aloud. Use a Think Aloud to model identifying the text structure that the authors use.

I just read information about litter, landfills, and recycling. I want to think about the text structure that the authors use to present this information. Looking at my text structures chart, I can ask myself, “Which one describes how this passage is organized?” I don’t see any signal words for sequence. I don’t think the author is telling me about the order in which events happened. I also don’t see any cause-and-effect or compare-and-contrast signal words. I think the authors are presenting main ideas and supporting details. On page 3, the main idea is that we make decisions every day that can harm or help the environment. The supporting details tell what those decisions are.

- Display an idea tree, and remind students that it is the graphic organizer for main idea and supporting details.
- Summarize the main ideas from your reading, and write these on the idea tree.
- Continue reading through page 6 aloud, noting main ideas and details on the idea tree.
- Remind students to think about the text structure that the authors use as they read Your Planet Needs You!

Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #4, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

<table>
<thead>
<tr>
<th>Team Talk</th>
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<tbody>
<tr>
<td>1. Looking at the charts on pages 6–9, what do the words <em>flora</em> and <em>fauna</em> mean? What clues did you use to figure out their meanings? [CL]</td>
</tr>
<tr>
<td>2. What are the differences between temperate and taiga forests? [CC]</td>
</tr>
</tbody>
</table>
Team Talk continued

3. Why don’t trees grow in the tundra? Use the chart on page 9 to support your answer. [CE • TF]

4. What text structure do the authors use on page 10 of the text?
   a. main idea and supporting details
   b. compare and contrast
   c. sequence
   d. cause and effect
How do you know? (Write-On) [TS]

- Randomly assign team leaders.

TEAMWORK
Timing Goal: 45 minutes

Partner Reading [TP]
- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students read and restate: pages 6–12 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion [TP]
- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion.
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.
Team Talk

1. Looking at the charts on pages 6–9, what do the words *flora* and *fauna* mean? What clues did you use to figure out their meanings? [CL]

   **100 points** = Looking at the charts, I think the word *flora* means plants, and the word *fauna* means animals. The clues I used to figure these out were the words under the headings. For example, short bushes, trees, and spiny plants are included in the deserts chart under *flora*. Small mammals, insects, reptiles, and birds are listed under *fauna*. **90 points** = Looking at the charts, I think the word *flora* means plants, and the word *fauna* means animals. The clues I used to figure it out were the words under the headings. **80 points** = The word *flora* means plants, and the word *fauna* means animals. The words under the headings.

2. What are the differences between temperate and taiga forests? [CC]

   **100 points** = The differences between temperate and taiga forests are that temperate forests have four seasons. Trees lose their leaves in the fall. Temperate forests are not too hot or too cold. Taiga forests are farther north where winters are long. The trees are mostly evergreens. **90 points** = The differences between temperate and taiga forests are that temperate forests are not too hot or too cold. Taiga forests are farther north where winters are long. **80 points** = Temperate forests are not too hot or too cold. Taiga forests have long winters.

3. Why don’t trees grow in the tundra? Use the chart on page 9 to support your answer. [CE • TF]

   **100 points** = The text says that no trees grow in the tundra because the ground is always frozen. The chart shows that only low shrubs, grasses, and flowers grow in the alpine tundra. **90 points** = No trees grow because the ground is frozen. The chart does not list trees. **80 points** = The ground is frozen. No trees are listed.

4. What text structure do the authors use on page 10 of the text?
   a. main idea and supporting details
   b. compare and contrast
   c. sequence
   d. cause and effect

   How do you know? (Write-On) [TS]

   **100 points** = I know it is a cause-and-effect text structure because it uses the signal word reason. It tells why the biosphere is in trouble and what is causing plants and animals to disappear. **90 points** = I know it is a cause-and-effect text structure because it uses the signal word reason and tells why things disappear. **80 points** = Because it uses the word reason and tells why.

- If some teams finish ahead of others, have them work on their graphic organizers.
Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

**Class Discussion**

- Ensure participation by calling on teams to share responses to all discussions.
- Remember to add individual scores to the teacher cycle record form.

<table>
<thead>
<tr>
<th>Strategy-Use Discussion</th>
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<tbody>
<tr>
<td>Use <strong>Random Reporter</strong> to select two or three students to describe their team’s strategy use with the class.</td>
</tr>
<tr>
<td>Award team celebration points.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Think-and-Connect Discussion</th>
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</thead>
<tbody>
<tr>
<td>Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill.</td>
</tr>
<tr>
<td>Allow students time to discuss your questions.</td>
</tr>
<tr>
<td>Use <strong>Random Reporter</strong> to select students to respond to your questions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team Talk Extenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>What kinds of fauna would you find in the most common biome on Earth?</td>
</tr>
<tr>
<td>How did living on an island protect the dodo bird? How did the arrival of humans affect the dodo bird?</td>
</tr>
<tr>
<td>Award team celebration points.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Write-On Discussion</th>
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</thead>
<tbody>
<tr>
<td>Use <strong>Random Reporter</strong> to ask one or two students to read their written answers to the skill question to the class. If desired, display student answers on the board.</td>
</tr>
<tr>
<td>Award team celebration points.</td>
</tr>
<tr>
<td>Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.</td>
</tr>
</tbody>
</table>
FLUENCY IN FIVE

Timing Goal: 5 minutes

- Explain to students that when they read correctly, smoothly, and with expression, it shows that they understand what they are reading.
- Tell students to look at the Fluency rubric as you model fluent reading.
- Explain and model reading fluently. Read a passage from the student text. Then reread it, first incorrectly, then chopply, and finally without expression to show a lack of fluency skills.

Page 8

- Ask students to use the Fluency rubric as they practice giving you feedback.
- Explain that students will practice reading fluently with partners on days 2 through 4.
- Tell students that they will receive an informal fluency score. Tell them they may read aloud to you for their score when they feel ready on days 2 through 4.

Team Celebration Points

| Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned. | - How many points did you earn today? |
| - How well did you use the team cooperation goal and behavior? |
| - How can you earn more points? |
ACTIVE INSTRUCTION
Timing Goal: 30 minutes

Team Cooperation Goal
- Remind students of this lesson’s team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage
- Display and have students complete the Two-Minute Edit to start the class. TP
- Use Random Reporter to check corrections.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.

Vocabulary TP
- Ask teams to have teammates make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.
- Use Random Reporter to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. SR
- Use Random Reporter to check the review.
- Open the Vocabulary Vault, and celebrate students’ words. Have each team record their Vocabulary Vault words on the team score sheet.
- Award team celebration points.

Strategic Review
- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use Random Reporter to have students share these items with the class.
- If appropriate, have students survey the section of text that they will read today and predict the topic of this section. Model this if necessary. Use Random Reporter to share the predictions with the class.
- Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.
What are the differences between temperate and taiga forests?

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the important ideas from yesterday’s reading.

Yesterday in Your Planet Needs You!, we read descriptions of Earth’s biomes and some of the plants and animals that live in each. We also read about some reasons that the biosphere is in trouble. We are losing habitat, so animals and plants are disappearing.

- Tell students that you will continue to record important ideas on the graphic organizer.
- Refer to page 13, and read it aloud. Use a Think Aloud to model identifying the text structure that the authors use and how you can tell.

What text structure do the authors use to present information on this page? I think it’s the sequence text structure. I can tell because the text includes a list of materials and instructions on how to start a compost bin. The steps are numbered and in order, so I know it is a sequence.

- Read pages 14–17 aloud. Use a Think Aloud to model identifying the text structure that the authors use and how you can tell.

Let me think about how the information is organized in this section on pollution. What text structure do the authors use to present information on these pages? As I go back and scan them, I notice that there are cause-and-effect signal words on each page. For example, on page 15, I see the signal word happens and the word causes several times. On page 16, I see the word causes again: “Too much carbon dioxide causes the whole earth to heat up, and that causes all sorts of problems with floods.” I also see the signal word results: “This results in less oxygen.” The signal words tell me that this is a cause-and-effect text structure. According to the text structure chart, a T-chart with causes in one column and effects in the other would be a good graphic organizer to use for this text.

- Remind students to think about the text structures that the author uses as they read Your Planet Needs You!

Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #1, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

**Team Talk**

1. What text structure do the authors use on page 18 of the text?
   - a. main idea and supporting details
   - b. compare and contrast
   - c. sequence
   - d. cause and effect
   How do you know? (Write-On) [TS]

2. Explain the difference between renewable and nonrenewable energy resources. Give an example of each. [CC]

3. Which adds more carbon dioxide (CO₂) to the air: burning biomass or burning fossil fuels? Explain your answer. [CE]

4. Using which of the following energy sources does NOT release carbon dioxide (CO₂) into the air?
   - a. wind turbines
   - b. gasoline
   - c. coal
   - d. natural gas

**TEAMWORK**

Timing Goal: 45 minutes

**Partner Reading TP**

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students read and restate: [SR]

  **pages 18–27 aloud with partners.**

- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.
Team Discussion

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion.
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

### Team Talk

1. What text structure do the authors use on page 18 of the text?
   - main idea and supporting details
   - compare and contrast
   - sequence
   - cause and effect

   How do you know? (Write-On) [TS]

   **100 points** = I know it is a cause-and-effect text structure because it uses the signal words caused, affect, and as a result. It tells about the effects of noise pollution and light pollution on animals. **90 points** = I know it is a cause-and-effect text structure because it uses the signal words caused, affect, and as a result. **80 points** = Because it uses the signal words caused, affect, and as a result.

2. Explain the difference between renewable and nonrenewable energy resources. Give an example of each.

   **100 points** = The difference between renewable and nonrenewable resources is that renewable resources do not run out. An example of a renewable resource is wind energy. Nonrenewable resources will run out at some time. An example of a nonrenewable resource is oil. **90 points** = The difference between renewable and nonrenewable resources is that renewable resources do not run out. Wind is renewable, and oil is nonrenewable. **80 points** = Renewable resources will not run out. Wind is renewable. Oil is nonrenewable.

3. Which adds more carbon dioxide (CO₂) to the air: burning biomass or burning fossil fuels? Explain your answer.

   **100 points** = Burning fossil fuels puts more carbon dioxide in the air because fossil fuels come from plants and animals that lived millions of years ago. Burning fossil fuels adds new carbon dioxide to the environment. Burning biomass does not add new carbon dioxide to the environment. **90 points** = Burning fossil fuels puts more carbon dioxide in the air because it adds new carbon dioxide to the environment. Burning biomass does not add new carbon dioxide to the environment. **80 points** = Burning fossil fuels does. It adds new carbon dioxide.
4. Using which of the following energy sources does NOT release carbon dioxide (CO₂) into the air?
   a. wind turbines
   b. gasoline
   c. coal
   d. natural gas

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

### Class Discussion

**Team Talk continued**

| Strategy-Use Discussion |  - Use **Random Reporter** to select two or three students to describe their team's strategy use with the class.  
  - Award team celebration points. |
|--------------------------|--------------------------------------------------------------------------------|
| Think-and-Connect Discussion |  - Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill.  
  - Allow students time to discuss your questions.  
  - Use **Random Reporter** to select students to respond to your questions.  
  - Award team celebration points. |
| Team Talk Extenders | On page 26, the text states, “The choices we make today will be the answers for tomorrow.” What does this statement mean?  
  Why is bottled water listed in the “Not That” column on page 27?  
  - Award team celebration points. |
| Write-On Discussion |  - Use **Random Reporter** to ask one or two students to read their written answers to the class. If desired, display student answers on the board.  
  - Award team celebration points.  
  - Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it. |
**FLUENCY IN FIVE**

Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency.
- Tell students the page numbers and the paragraphs of the fluency passage. Write or display these on the board.
- Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.
- Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.
- Assign individual fluency goals as needed, monitor practice, and assign scores.
- Select two or three students to read the fluency section that they practiced for a score.
- Award team celebration points. Remember to add individual scores to the teacher cycle record form.

**WORD POWER**

Timing Goal: 10 minutes

- Pretend to take a message from Captain Read More out of the bottle. Use the message to review the Word Power skill—reading base words with endings. Link the skill to Captain Read More’s Word Treasure clue for reading base words with endings (a sailboat with one main sail and one small sail).
- Display a sailboat with one main sail and one small sail. Write “soundless” on the bottom of the boat.
Point out that there is one main sail and one small sail. Use **Think-Pair-Share** to have students tell what the clues mean—how the sails can help them read the word—and which word part should go on each sail. Randomly select a few students to share.

- Write the word parts on the sails as students respond.

Repeat the activity with the words *angered* and *mixable*.

- Use **Think-Pair-Share** to have students identify the treasure (skill). Randomly select a few students to share.
- Confirm, or model, by reading Captain Read More’s treasure note.

**Word Treasure**

*Sometimes words have endings on them.*

*If you’re having trouble reading a word like this, read the base word and ending, and then read the whole word.*

- Tell students to look out for words with the endings *-ed, -less,* and *-able* on their vocabulary list.
- Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.
- Explain, or have the team leaders review as necessary, the Word Power activity before having students begin. **SR**
Skill Practice

Write each word in your journal. Then write the base word and ending of each word. Draw a sailboat if you need help.

1. buildable  build + able
2. planted  plant + ed
3. toothless  tooth + less
4. shocked  shock + ed

Building Meaning

<table>
<thead>
<tr>
<th>lack</th>
<th>replaced</th>
<th>prefer</th>
<th>reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>decay</td>
<td>residents</td>
<td>fumes</td>
<td>renewable</td>
</tr>
</tbody>
</table>

5. Choose a word from the vocabulary list, and write a meaningful sentence for that word.

100 points = The sentence uses the word correctly and includes details to create a mind movie. 90 points = The sentence uses the word correctly and includes one detail. 80 points = The sentence uses the word correctly.

6. Choose the word that best fits in the blank.
The residents of First Street recycled bottles, paper, and cans.

- Use Random Reporter to check responses on the skill-practice items.
- Award team celebration points.
- Use Random Reporter to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.
- Use Random Reporter to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the Vocabulary Vault tomorrow.

Team Celebration Points

Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.

- How many points did you earn today?
- How well did you use the team cooperation goal and behavior?
- How can you earn more points?
ACTIVE INSTRUCTION

Timing Goal: 30 minutes

Day 3 / Your Planet Needs You!

Team Cooperation Goal
- Remind students of this lesson’s team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage
- Display and have students complete the Two-Minute Edit to start the class. TP
- Use Random Reporter to check corrections.
- Award team celebration points.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.

Vocabulary TP
- Ask teams to have teammates make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?.”
- Use Random Reporter to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. SR
- Use Random Reporter to check the review.
- Open the Vocabulary Vault, and celebrate students’ words. Have each team record their Vocabulary Vault words on the team score sheet.
- Award team celebration points.

Strategic Review
- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use Random Reporter to have students share these items with the class.
- If appropriate, have students survey the section of text that they will reread today and predict that ideas will become more clear. Model this if necessary. Use Random Reporter to share the predictions with the class.
Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.

| Explain the difference between renewable and nonrenewable energy resources. Give an example of each. |

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the important ideas from yesterday’s reading.

Yesterday in Your Planet Needs You!, we read about different types of pollution in the biosphere. We read about land, air, water, noise, and light pollution. We also learned about different types of energy sources and which are renewable and nonrenewable.

- Tell students that as you reread you will look for details about the important ideas and add them to the graphic organizer. Tell students that you will also add any important information you missed the first time you read.
- Reread pages 2–4 aloud. Use a Think Aloud to model identifying the text structure for page 4. Add the details to the graphic organizer accordingly.

I want to think about the text structure the authors use on page 4. Looking at my text structure chart, I can ask myself, “Which one describes how this passage is organized?” When I reread this passage, I notice the word biosphere repeated in the heading, the diagram, and the text. The authors are explaining what biosphere means and giving supporting details to help me understand it. I think they are using the text structure for main idea and supporting details. I can record the information on an idea tree.

- Display an idea tree. Record the main ideas and supporting details from page 4.
- Continue rereading through page 5. Point out that the text structure is also main idea and supporting details. Use Think-Pair-Share to have students add details to support the main idea that water biomes cover three quarters of the earth. Some details that support the main idea are that the two main types of water biomes are marine and freshwater; marine biomes are salty and include oceans and seas; and freshwater biomes include ponds, lakes, streams, and rivers. Marine biomes are salty, but freshwater biomes are not; most water biomes are the marine type.
- Remind students that as they reread, they should look for details that provide more information about the big ideas in the text.
Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #1, must be written individually, after students discuss it in their teams.

- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.

- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

<table>
<thead>
<tr>
<th>Team Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What text structure do the authors use on page 8 of the text?</td>
</tr>
<tr>
<td>a. main idea and supporting details</td>
</tr>
<tr>
<td>b. compare and contrast</td>
</tr>
<tr>
<td>c. sequence</td>
</tr>
<tr>
<td>d. cause and effect</td>
</tr>
<tr>
<td>How do you know? (Write-On)</td>
</tr>
<tr>
<td>2. What are two reasons land animals and fish are disappearing?</td>
</tr>
<tr>
<td>3. According to the authors, why are meatless Mondays a good idea?</td>
</tr>
<tr>
<td>4. How does plant life in forest biomes differ from that in grassland biomes?</td>
</tr>
</tbody>
</table>

TEAMWORK

Timing Goal: 45 minutes

Partner Reading TP

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students reread and restate: SR

   pages 6–12 aloud with partners.

- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.
Team Discussion

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion.
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

Team Talk

1. What text structure do the authors use on page 8 of the text?
   - main idea and supporting details
   - compare and contrast
   - sequence
   - cause and effect

   How do you know? (Write-On) [TS]

   **100 points** = I know because the text tells about the main idea of what grasslands are like. The supporting details tell about savannas in Africa and temperate grasslands in the American and Canadian Midwest.

   **90 points** = I know because the text tells about the main idea of what grasslands are like and has supporting details.

   **80 points** = Because it talks about the main idea of grasslands and supporting details.

2. What are two reasons land animals and fish are disappearing? [CE]

   **100 points** = One reason that land animals and fish are disappearing is because people are hunting them and killing them all. Another reason is habitat loss. People are changing or polluting their habitats, so they cannot survive there anymore.

   **90 points** = One reason that land animals and fish are disappearing is because people are hunting them.

   **80 points** = Because they are hunted and losing their habitats.

3. According to the authors, why are meatless Mondays a good idea? [CE]

   **100 points** = According to the authors, meatless Mondays are a good idea because it means we eat fewer animals. The land and energy used to raise the animals is saved. That helps the environment. It is also healthy to eat less red meat.

   **90 points** = According to the authors, meatless Mondays are a good idea because it means we eat fewer animals. The land and energy used to raise the animals is saved.

   **80 points** = We eat fewer animals. The land and energy used to raise the animals is saved.
### Team Talk continued

4. How does plant life in forest biomes differ from that in grassland biomes? [CC]

| 100 points = Plant life in forest biomes is different from that in grassland biomes because grasslands don’t have as many trees as forests do. The grassland biomes are mostly tall grasses and shrubs. |
| 90 points = Plant life in forest biomes is different from that in grassland biomes because grasslands don’t have as many trees as forests do. |
| 80 points = Grasslands don’t have as many trees as forests do. |

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

### Class Discussion

**Strategy-Use Discussion**
- Use **Random Reporter** to select two or three students to describe their team’s strategy use with the class.
- Award team celebration points.

**Think-and-Connect Discussion**
- Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill.
- Allow students time to discuss your questions.
- Use **Random Reporter** to select students to respond to your questions.

<table>
<thead>
<tr>
<th>Team Talk Extenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>What animals would you expect to see in a desert biome at night?</td>
</tr>
<tr>
<td>Which of the actions on page 12 would have the biggest effect on the environment? Why?</td>
</tr>
</tbody>
</table>

- Award team celebration points.

**Write-On Discussion**
- Use **Random Reporter** to ask one or two students to read their written answers to the class. If desired, display student answers on the board.
- Award team celebration points.
- Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.
FLUENCY IN FIVE
Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency. [SR]
- Tell students the page numbers and the paragraphs of the fluency passage. Write these on the board.

Page 26 or 9

- Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.
- Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.
- Assign individual fluency goals as needed, monitor practice, and assign scores.
- Select two or three students to read the fluency section that they practiced for a score.
- Award team celebration points. Remember to add individual scores to the teacher cycle record form.

WORD POWER
Timing Goal: 10 minutes

- Pretend to take a message from Captain Read More out of the bottle. Use the message to remind students of the skill they are working on (base word and ending) and the clue that Captain Read More uses to teach this skill (a sailboat with a main sail and a little sail).
- Point out that there is a word from this cycle’s vocabulary list that contains a base word with the ending -able. Draw, or display, another blank sailboat. Write “renewable” on the bottom of the boat.
Use **Think-Pair-Share** to have students identify which word part should go on the big sail and which word part should be written on the smaller sail. Randomly select a few students to share. *The word renew goes on the big sail, and the ending -able goes on the little sail.*

Display another sailboat. Write “reduced” on the bottom of the boat. Point out that this is another vocabulary word.

Use **Think-Pair-Share** to have students identify which word part should go on the big sail and which word part should be written on the smaller sail. Randomly select a few students to share. *The word reduce goes on the big sail. The ending -ed goes on the little sail.*

Use **Think-Pair-Share** to have students read the sail parts with you, read the word, and then compare the word parts on the sails with the word on the sailboat to see whether they are the same. Randomly select a few students to share.

Point out that Captain Read More uses another tool with the words *reduced and replaced*. Explain that the base words end with an *e* and that the extra *e* needs to be scrubbed off when the ending *-ed* is added. Tell students to use the scrubber when they notice an extra *e* on the ends of base words with endings.

Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.

Explain, or have the team leaders review, as necessary, the Word Power activity before having students begin.
Skill Practice

Write each word in your journal. Then write the base word and ending of each word. If a letter changes when the ending is added, cross out that letter. Draw a sailboat if you need help.

1. enjoyable  
   *enjoy + able*

2. proved  
   *prove + ed*

3. lasted  
   *last + ed*

4. careless  
   *care + less*

Building Meaning

<table>
<thead>
<tr>
<th>lack</th>
<th>replaced</th>
<th>prefer</th>
<th>reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>decay</td>
<td>residents</td>
<td>fumes</td>
<td>renewable</td>
</tr>
</tbody>
</table>

5. Choose a word from the vocabulary list, and write a meaningful sentence for that word, or revise your sentence from yesterday.

   **100 points =** The sentence uses the word correctly and includes details to create a mind movie. **90 points =** The sentence uses the word correctly and includes one detail. **80 points =** The sentence uses the word correctly.

6. The room was filled with stinky fumes when something went wrong with Jasmine’s science project. *Fumes* means—
   a. bubbles.
   b. trash.
   c. gases.
   d. mess.

- Use Random Reporter to check responses on the skill-practice items.
- Award team celebration points.
- Use Random Reporter to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.
- Use **Random Reporter** to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the **Vocabulary Vault** tomorrow.

<table>
<thead>
<tr>
<th>Team Celebration Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
DAY 4 / Your Planet Needs You!

ACTIVE INSTRUCTION

Timing Goal: 30 minutes

Team Cooperation Goal

- Remind students of this lesson’s team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage

- Display and have students complete the Two-Minute Edit to start the class. Use Random Reporter to check corrections.
- Award team celebration points.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.

Vocabulary

- Ask teams to have teammates make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?.”
- Use Random Reporter to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. Use Random Reporter to check the review.
- Open the Vocabulary Vault, and celebrate students’ words. Have each team record their Vocabulary Vault words on the team score sheet.
- Award team celebration points.

Strategic Review

- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use Random Reporter to have students share these items with the class.
- If appropriate, have students survey the section of text that they will reread today and predict that ideas will become more clear. Model this if necessary. Use Random Reporter to share the predictions with the class.
Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.

What are two reasons animals and fish are disappearing?

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the information that you added to your graphic organizer during yesterday’s reading.

Yesterday we reread the first half of Your Planet Needs You!, and we identified the text structures the authors used to organize information.

- Tell students that as you reread you will look for details about the important ideas and add them to the graphic organizer. Tell students that you will also add any important information you missed the first time you read.
- Tell students that as you reread, you will identify details that indicate the text structure.

The first time I read this section on pollution, I decided the text structure was causes and effects. The text tells about the causes and effects of pollution. As I reread, I am going to pay attention to the information in the sidebars. I’m going to find out more details about the causes and effects of pollution to add to my T-chart.

- Reread pages 13–15 aloud. Use Think-Pair-Share to have students identify details that tell about the causes and effects of pollution, and add them to the T-chart accordingly.

What information about causes and effects do you learn from the sidebar on page 15? Allow time for partners to discuss. The sidebar tells how long it takes for things that we throw away to decompose. An effect of littering is that trash like styrofoam never decomposes. Aluminum cans will be around for up to 500 years.

- Continue rereading through page 17. Use Think-Pair-Share to have students identify details that tell about the causes and effects of pollution.

What information about causes and effects do you learn from the sidebar on page 17? Allow time for partners to discuss. The sidebar tells about the effects of oil spills on animals in the ocean. One effect is that the oil spreads, and fish, sea turtles, and birds die from the pollution. Another effect is that the oil washes up on shore. I think that would affect people who wanted to enjoy the beach and swim.
Remind students that as they reread, they should look for details that provide more information about the main ideas in the text.

**Preview Team Talk**

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #3, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students' reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.
- Point out that question #4 asks them to summarize the text using their graphic organizers. Tell them that this will complete the TIGRRS process.

**Student Edition, page 5**

<table>
<thead>
<tr>
<th>Team Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How do the photographs on page 20 connect to the ideas in the text? [TF]</td>
</tr>
<tr>
<td>2. On page 20, the text states, “After millions of years, they transformed into oil, coal, and natural gas.” <em>Transformed</em> means— [CL]</td>
</tr>
<tr>
<td>a. disappeared.</td>
</tr>
<tr>
<td>b. changed.</td>
</tr>
<tr>
<td>c. froze.</td>
</tr>
<tr>
<td>d. dried up.</td>
</tr>
<tr>
<td>3. What text structure do the authors use on page 25 of the text?</td>
</tr>
<tr>
<td>a. main idea and supporting details</td>
</tr>
<tr>
<td>b. compare and contrast</td>
</tr>
<tr>
<td>c. sequence</td>
</tr>
<tr>
<td>d. cause and effect</td>
</tr>
<tr>
<td>How do you know? (Write-On) [TS]</td>
</tr>
<tr>
<td>4. Choose a section of text to summarize. Use the graphic organizer to help. [SU]</td>
</tr>
</tbody>
</table>
TEAMWORK
Timing Goal: 45 minutes

Partner Reading  TP

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students reread and restate: SR
  pages 18–27 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.

Team Discussion  TP

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion. SR
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

### Team Talk

1. How do the photographs on page 20 connect to the ideas in the text? [TF]

   **100 points** = The photographs connect to the ideas in the text about which energy resources are renewable and which are nonrenewable. The illustration shows how energy from wind, water, and the sun is collected. It also shows some examples of biomass. **90 points** = The photographs connect to the ideas in the text about which energy resources are renewable and which are nonrenewable. **80 points** = They show which energy sources are renewable and nonrenewable.

2. On page 20, the text states, “After millions of years, they transformed into oil, coal, and natural gas.” Transformed means— [CL]
   a. disappeared.
   b. changed.
   c. froze.
   d. dried up.
Team Talk continued

3. What text structure do the authors use on page 25 of the text?
   a. main idea and supporting details
   b. compare and contrast
   c. sequence
   d. cause and effect

How do you know? (Write-On) [TS]

100 points = I know because the authors tell about the main idea that there are ways to help the environment. The ways to help are the details that support the main idea. For example, a detail is that you can help by reading and sharing information about plants and animals in the world.

90 points = I know because the authors tell about the main idea that there are ways to help the environment. The ways to help are the details.

80 points = Because the main idea is that there are ways to help the environment, and there are details.

4. Choose a section of text to summarize. Use the graphic organizer to help. [SU]

100 points = The biosphere is in trouble as a result of people’s actions. As animals and fish are hunted, they are disappearing from the biosphere. As human population goes up, they need more space to live. As a result, they destroy, change, and pollute habitats. It is not too late to help. People can plant trees to replace ones cut down and they can compost, helping recycle nutrients for new plants to grow.

90 points = The biosphere is in trouble. As human population goes up, they need more space to live. As a result, habitats change. People can help. One way is to plant trees.

80 points = The biosphere is in trouble. People need more space to live. People can help.

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

Class Discussion TP

Strategy-Use Discussion

- Use Random Reporter to select two or three students to describe their team’s strategy use with the class.
- Award team celebration points.
DAY 4 / Your Planet Needs You!

Think-and-Connect Discussion

- Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill.

- Allow students time to discuss your questions.

- Use Random Reporter to select students to respond to your questions.

Team Talk Extenders

Looking at the picture from NASA on page 18, how can you tell where cities are located in North America?

What do you learn about turbines from the information on page 23? How do they produce electricity?

- Award team celebration points.

- Allow students time to discuss their summaries.

- Use Random Reporter to select students to share their summaries.

Write-On Discussion

- Use Random Reporter to ask one or two students to read their written answers to the skill question to the class. If desired, display student answers on the board.

- Award team celebration points.

- Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.

FLUENCY IN FIVE

Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency. SR

- Tell students the page numbers and the paragraphs of the fluency passage. Write these on the board.

Student Edition, page 1

Page 26, 9, or 20
Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.

Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.

Assign individual fluency goals as needed, monitor practice, and assign scores.

Select two or three students to read the fluency section that they practiced for a score.

Award team celebration points. Remember to add individual scores to the teacher cycle record form.

WORD POWER

Timing Goal: 10 minutes

Remind students of the Word Power skill (base word and ending) and the Word Treasure clue that Captain Read More uses for this skill (a sailboat with a main sail and a little sail).

Use Think-Pair-Share to have students tell how endings can change base words. Randomly select a few students to share. *Endings can change base words by making you scrub off, or patch in, letters in the word. You might have to scrub off an extra e.*

Read the following sentences aloud, and use Think-Pair-Share to have students identify the base words and endings of the underlined words.

Lucian was **hatless** when it started snowing during recess, so he had to **go inside** to keep warm and dry.

Because of pollution, the water in the stream was no longer **drinkable**.

Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.

Explain, or have the team leaders review, as necessary, the Word Power activity before having students begin.
**Skill Practice**

Write each word in your journal. Then write the base word and ending of each word. If a letter changes when the ending is added, cross out that letter. Draw a sailboat if you need help.

1. pretended  
   pretend + ed
2. washable  
   wash + able
3. meatless  
   meat + less
4. drifted  
   drift + ed

**Building Meaning**

<table>
<thead>
<tr>
<th>lack</th>
<th>replaced</th>
<th>prefer</th>
<th>reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>decay</td>
<td>residents</td>
<td>fumes</td>
<td>renewable</td>
</tr>
</tbody>
</table>

5. Choose a word from the vocabulary list, and write a meaningful sentence for that word, or revise your sentence from yesterday.

**100 points =** The sentence uses the word correctly and includes details to create a mind movie. **90 points =** The sentence uses the word correctly and includes one detail. **80 points =** The sentence uses the word correctly.

6. Choose the word that best fits in the blank.
   The coach replaced the pitcher in the second inning because his arm was getting tired.

- Use Random Reporter to check responses on the skill-practice items.
- Award team celebration points.
- Use Random Reporter to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.
- Use Random Reporter to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the Vocabulary Vault tomorrow.

**Team Celebration Points**

Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.

- How many points did you earn today?
- How well did you use the team cooperation goal and behavior?
- How can you earn more points?
ACTIVE INSTRUCTION
Timing Goal: 20 minutes

Team Cooperation Goal

- Remind students of this lesson’s team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage

- Tell students that their reading test today includes comprehension questions and Word Power items.
- Remind students that their scores on this test will contribute to their team scores.
- Introduce the text that students will read for their test. Relate it to their cycle text by telling what it is about, but do not give additional information or details.

Today you will read about cell phones.

Vocabulary

- Remind students that the meanings of the vocabulary words and the Word Power skill will be assessed on their written test.
- Have the teams review the vocabulary words. Remind them to use the vocabulary words in new meaningful sentences.

Prepare Students for the Test

- Distribute the test, and preview it with students without providing information about the answers. Point out that question #3 asks about text structure.
- Ask students to underline key words or phrases in question #3.
- Make sure that students understand that the test is independent work and that they should continue to use their strategies with sticky notes as they read without their partners’ assistance.
- Tell students to add any relevant ideas from this reading to their graphic organizers and to do so without assistance.
- Remind students that they have 35 minutes for the test.
TEST
Timing Goal: 35 minutes

- Allow students to begin.
- Help students monitor their timing by indicating once or twice how much time remains.
- When students are finished, collect pencils or pens, but have students retain the test and graphic organizers.

TEAMWORK
Timing Goal: 35 minutes

Team Discussion
- Modify the procedures for Team Discussion to have students discuss independent strategy use and answers to the test. SR
- Remind students that they will need to prepare each team member to discuss the team’s strategy use during Class Discussion.
- Pass out a colored pen (e.g., red or green ink) to each student.
- Point to the skill question. Ask students to specifically discuss the skill question.
- Ask students to state the question in their own words and tell what key words or phrases they underlined.
- Have students read their answers to the question. Ask the teams to think about what they like about their answers and what they wish they had said differently. Tell them to use their colored pens to add comments to their answers.
- Circulate during Team Discussion, and listen to discussions about test answers.
- Use Random Reporter to have students share additions they made to the targeted skill question.
- Award team celebration points.
- Have students share the information that they put on their graphic organizers.
Class Discussion

- Ask the class to share the comments that they wrote on their test answers. Ask them why these comments made their answers better or more complete.
- Collect the test answers.
- Use Random Reporter to have students discuss their strategy use.
- Award team celebration points.
- Use Random Reporter to review and celebrate the team discussions, including new information added to test answers and graphic organizers.
- Award team celebration points.
- Open the Vocabulary Vault, and celebrate students’ words. Have each team record their Vocabulary Vault words on the team score sheet.
- Award team celebration points.

<table>
<thead>
<tr>
<th>Team Celebration Points</th>
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<tbody>
<tr>
<td>Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.</td>
</tr>
</tbody>
</table>

- How many points did you earn today?
- How well did you use the team cooperation goal and behavior?
- How can you earn more points?
Test Passage

Read the test passage, and complete a graphic organizer. Then reread the passage, and add more ideas to your organizer.

Don’t dump that cell phone!

Did you know that you can recycle cell phones? They are made from plastic, metal, and glass. But you have to be careful about how you recycle them. You can’t just throw them into the bin. Cell phones have expensive metals in them. They need to be recycled in a special way. Then those metals can be reused to make new cell phones.

If a phone is still working, it can be reused. People can give phones to special charities. The charities will fix up the phones and give them to people who need less expensive ones. If a phone is really broken, it should be recycled. Some stores have special collections for old phones. People can take phones to those stores, and the workers there will make sure that the phones are recycled correctly.

Source: U.S. Environmental Protection Agency
(www.epa.gov/osw/partnerships/plugin/cellphone/index.htm)

Comprehension Questions

Use your graphic organizer to answer the following questions. The score for comprehension questions equals 90 points. The graphic organizer is worth 10 points. The total possible score equals 100 points.

20 points

1. What is the topic of this text? How do you know? |MI|

   20 points = The topic of this text is recycling cell phones. I know this is the topic because the title is “Don’t dump that cell phone!” That means you shouldn’t throw it out. 15 points = The topic of this text is recycling cell phones. I know this is the topic because the title is “Don’t dump that cell phone!” 10 points = It’s about recycling cell phones. I know from the title.

20 points

2. What is the intent of the author? How do you know? |AP|

   20 points = The author’s intent is to tell me about recycling cell phones. I know this is the author’s intent because most of the information is about recycling cell phones. The author gives information about how phones can be used again. 15 points = The author’s intent is to tell me about recycling cell phones. I know this is the author’s intent because most of the information is about recycling cell phones. 10 points = To tell me about recycling cell phones. Most of the information is about recycling cell phones.
30 points

3. What text structure does the author use in the second paragraph of the passage?
   a. main idea and supporting details
   b. compare and contrast
   c. sequence
   d. cause and effect

How do you know? [TS]

20 points = I know it is main idea and supporting details because there are no signal words for other text structures. The main idea is that old cell phones can be recycled in two ways. The supporting details are about recycling phones that still work and recycling ones that are broken. 15 points = I know it is main idea and supporting details because there are no signal words for other text structures. The main idea is that old cell phones can be recycled in two ways. 10 points = Main idea and supporting details because there are no signal words for other text structures.

20 points

4. Use information from your graphic organizer to summarize the text. [SU]

20 points = People can recycle their cell phones. Cell phones are made from plastic, glass, and metal. The metals inside phones are expensive and can be reused. Sometimes a phone can be fixed and used again. Cell phones need to be collected for special recycling. 15 points = People can recycle their cell phones. Sometimes a phone can be fixed and used again. Cell phones need special recycling. 10 points = People can recycle cell phones. Cell phones can be fixed and used again. Cell phones need special recycling.

Word Power

Number your paper from 1 to 12. Write your answers next to the matching numbers on your paper. The total possible score for Word Power questions equals 100 points.

Skill Questions

Write each word. Then write the base word and ending of each word. If a letter changes when the ending is added, cross out that letter. Draw a sailboat if you need help.

5 points

1. printable  print + able

5 points

2. clueless  clue + less

5 points

3. fearless  fear + less

5 points

4. removed  removed + ed
Building Meaning

<table>
<thead>
<tr>
<th>lack</th>
<th>replaced</th>
<th>prefer</th>
<th>reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>decay</td>
<td>residents</td>
<td>fumes</td>
<td>renewable</td>
</tr>
</tbody>
</table>

5. Write a meaningful sentence for the word *replaced*.

10 points = The teacher replaced the book he had taken from the library shelf with a new book. 5 points = The teacher replaced the book he had taken from the library shelf. 1 point = The teacher replaced the book.

6. The dead leaves in the pile will *decay* and, over time, break down into soil.

7. I *prefer* to watch funny movies and not scary ones. *Prefer* means—
   a. like better.
   b. get ready.
   c. tell others.
   d. try waiting.

8. The *lack* of water caused the plant to wilt and die.

9. The *fumes* from the fire made his eyes and nose sting. *Fumes* means—
   a. paper.
   b. smoke.
   c. ashes.
   d. heat.

10. Energy from the wind is a *renewable* source because the supply of wind does not run out.

11. My family *reduced* the amount of trash we threw out each week by recycling more items. *Reduced* means—
   a. made larger.
   b. made cleaner.
   c. made messier.
   d. made smaller.

12. Every spring, the *residents* of Peterson Park plant flowers along the paths.
ACTIVE INSTRUCTION
Timing Goal: 25 minutes

Set the Stage
- Introduce the writing goal.

Today you will write a letter to a friend telling about what we can do to protect our planet.

Team Cooperation Goal
- Remind students of this lesson’s team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Build Background
- Explain the connection between the writing project and the text.

You have been reading about problems facing our environment and what we can do to help the planet. For example, we can recycle and work to keep our neighborhoods free of trash. Imagine that you are writing a letter to a friend telling what we can do to protect our planet. What actions can we take?

- Display the blackline master. Explain to students that this is the format for writing a friendly letter.

Blackline master provided.

<table>
<thead>
<tr>
<th>Your address</th>
<th>Date (month, day, year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear __________, [Greeting]</td>
<td></td>
</tr>
<tr>
<td>[Body of letter]________________________</td>
<td></td>
</tr>
<tr>
<td>_________________________________</td>
<td></td>
</tr>
<tr>
<td>_________________________________</td>
<td></td>
</tr>
<tr>
<td>_________________________________</td>
<td></td>
</tr>
<tr>
<td>Sincerely, [Closing]</td>
<td></td>
</tr>
<tr>
<td>Your name____________</td>
<td></td>
</tr>
<tr>
<td>[Signature]</td>
<td></td>
</tr>
</tbody>
</table>
Planning

- Introduce the activity.

  **Remember that today you will write a letter to a friend describing what we can do to help our planet.**

- Introduce the prompt and scoring guide. Use **Think-Pair-Share** to have students clarify the prompt by identifying the topic, audience, purpose, and format.

<table>
<thead>
<tr>
<th>Writing Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write a letter to a friend telling about a problem facing our planet and how we can help to solve the problem. Use the proper letter format (the date, a greeting, the body, a closing, and a signature). The body of your letter should have two paragraphs. In the first paragraph, describe a problem facing our environment. In the second paragraph, tell what actions we can take to help solve the problem and protect our planet. Be sure to use complete sentences and proper spelling and grammar.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scoring Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>The letter is about a problem facing our planet and what we can do to help.</td>
</tr>
<tr>
<td>The letter includes the date, a greeting, the body, a closing, and a signature.</td>
</tr>
<tr>
<td>The body of the letter includes two paragraphs: one about a problem facing our environment and one about what actions we can take to help solve the problem.</td>
</tr>
<tr>
<td>The letter is written in complete sentences and uses proper spelling and grammar.</td>
</tr>
</tbody>
</table>

- Remind students of the importance of planning their writing before they actually begin to write. Introduce the graphic organizer—the type of organizer and how it is used.

  **Before we begin writing, it’s very important that we plan what we are going to write. That way, our thoughts and ideas will be organized when we write them down. The best way to plan for writing is to use a graphic**
organizer. Today we will use a T-chart. This will help us put our thoughts in the right order as we write our letters.

- Demonstrate how to draw the graphic organizer, modeling to the extent necessary.
- Use **Think-Pair-Share** to have students discuss what they will include in their writing. Randomly select a few students to share. Then have students draw their organizers and fill them in with these ideas.
- Monitor students as they complete their plans. Give specific feedback to reinforce good planning, and assist students as needed.
- Ask one or two students who have examples of good planning to share their ideas with the class.

**Sample Graphic Organizer**

![T-Chart Graphic Organizer](image)

- Tell students that they will now begin planning their letters.
Drafting

- Tell students that they will use their plans to write a first draft.
- Explain how students will use the ideas in their graphic organizers to write their drafts. Remind them to include all of their ideas, writing in sentences and skipping lines to make room for revisions. Also, suggest that they include new thoughts as they occur.
- Display the following sample letter.

```
1 Solar Court
Ganton, MS 69584
April 17, 2014

Dear Brandon,

There are some problems in our environment. I think we can do something about them. One problem is all the trash that piles up in our neighborhoods. In the past few months, I have noticed that the park is full of litter. There are empty soda cans and water bottles all around the playground.

Something we can do to solve the problem would be to pick up the bottles and cans and put them in recycling bins. Plastic and metal can be recycled and made into other useful things. We could also put recycling bins around the park. This would make it easy for people to recycle. We could also tell our friends about filling reusable water bottles so there won’t be so many plastic water bottles. I hope you will spread the word about keeping the park clean and recycling to help our planet.

Sincerely,
Jermaine Isaacs
```

- Review the parts of a letter as they apply to this example: date, greeting, body, closing, and signature.
- Point out that this letter has two paragraphs in the body. The first one describes the problem, and the second one suggests a way to fix the problem. Tell students that they will follow this format.
- While they have their plans in front of them, have students review their ideas with partners and begin to write.
- Remind students to periodically check their writing against the prompt and scoring guide to make sure they are meeting the goal for the activity.
- Monitor students as they begin working. Give specific feedback to reinforce good drafting, and assist students as needed.
- As students complete their drafts, have them read their writing aloud to a partner to see that it includes the intended ideas and makes sense.
- Ask one or two students to share their first drafts with the class to celebrate.
Sharing, Responding, and Revising

- Tell students that they will work with partners to improve their writing. They will share and respond to provide feedback for each other’s drafts.
- Using the chart in the student routines, explain and model, or review if necessary, how to share and respond with partners. **SR**
- Ask students to share and respond with their partners.
- Using the chart in the student routines, review how to make revisions. **SR**
- Have students tell their partners whether they think the letter clearly tells about a problem and whether it tells actions to take to solve the problem.
- Ask one or two students to share how they might revise their own work based on their partners’ feedback. Then tell the class to make changes as suggested to their own drafts. Monitor students as they work, giving specific feedback to reinforce and assist as needed.

Editing

- Tell students that they will edit their work to get it ready for rewriting.
- Develop a checklist with students by asking them what kinds of errors they should look for when they edit. Add to, or modify, students’ suggestions with your own list of capitalization, punctuation, grammar, and spelling skills. If necessary, go over a few examples of each kind of error.
- If helpful, have students copy the checklist in their journals as a reference.
- Have students reread their first drafts, looking for the types of errors listed and correcting these on their drafts. If your students are familiar with proofreading marks, encourage students to use them.
- Ask students to read their partners’ drafts to check them against the editing list a second time. If they find additional errors, ask them to mark the errors on their partners’ papers.
- Have students share their edits with their partners.

Rewriting

- Tell students that they will rewrite their drafts to include their revisions and edits.
- Ask students to begin rewriting, and assist them as needed.
- When they are finished, have students read over their writing and then read it aloud to their partners as a final check.
- Celebrate by asking one or two volunteers to share their work with the class.
- Collect and score the completed writing activities.

<table>
<thead>
<tr>
<th>Team Celebration Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Help students see their team celebration score by using the overlay.</strong></td>
</tr>
</tbody>
</table>

- What is your team celebration score?
- How well did you use the team cooperation goal and behavior?
- How can you earn more points?
### Text Structure Chart

<table>
<thead>
<tr>
<th>Text Structure</th>
<th>Signal Words</th>
<th>Example Question</th>
<th>Example Graphic Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main idea and supporting details</td>
<td>Main idea is usually stated in a topic sentence. The topic sentence is often the first or last sentence of a paragraph. Ask: What are all the details talking about?</td>
<td>Explain the main idea of this section. Give supporting details or evidence from the text.</td>
<td>Idea tree</td>
</tr>
<tr>
<td>Cause and effect</td>
<td><em>Because, cause, reason, result, why, lead to, effect, happens, due to</em></td>
<td>What <strong>caused</strong> people to move west in the mid 1800s?</td>
<td>Cause Effect</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Homes in West</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Homes in East</td>
</tr>
<tr>
<td>Compare and contrast</td>
<td><em>Like, unlike, similar, different, although, but, contrast, compare, common</em></td>
<td>How were the homes on the plains different from the ones back east?</td>
<td></td>
</tr>
<tr>
<td>Problem and solution</td>
<td><em>Problem, dilemma, issue, solution, question, answer, solve, deal with, struggle</em></td>
<td>How do plants solve the problem of living in a desert habitat?</td>
<td>Problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Getting enough water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deep roots</td>
</tr>
<tr>
<td>Sequence</td>
<td><em>First, begins, began, starts, started, steps, when, second, next, later, during, while, then, third, after, last, finally, ends, now</em></td>
<td>What happens after a law is passed by the Senate?</td>
<td></td>
</tr>
</tbody>
</table>

Event 1

↓

Event 2

↓

Event 3
Passage 1

At the bottom of our planet lies a frozen desert—the continent of Antarctica. It is the coldest, driest, and windiest place on Earth. Temperatures are as low as -128 degrees Fahrenheit. This land at the South Pole is covered in ice hundreds of feet thick. In fact, 90 percent of the ice on Earth can be found in the Antarctic region.

Passage 2

During the winter, low temperatures cause the surface of the ocean surrounding Antarctica to freeze. When temperatures rise in the polar summer, the ice breaks up. The result is big floating chunks called ice floes. Also, due to warmer temperatures, giant pieces of ice break away from glaciers. They fall into the ocean and become icebergs, some as big as apartment buildings.
Passage 3

To set up a classroom aquarium, first assemble the materials. Next, fill the bottom of the tank with gravel, and add the water. After adding the water, press the roots of the water plants into the gravel. Then, install the bubbler. Finally, add the fish and snails.
Dear Brandon,

There are some problems in our environment. I think we can do something about them. One problem is all the trash that piles up in our neighborhoods. In the past few months, I have noticed that the park is full of litter. There are empty soda cans and water bottles all around the playground.

Something we can do to solve the problem would be to pick up the bottles and cans and put them in recycling bins. Plastic and metal can be recycled and made into other useful things. We could also put recycling bins around the park. This would make it easy for people to recycle. We could also tell our friends about filling reusable water bottles so there won’t be so many plastic water bottles. I hope you will spread the word about keeping the park clean and recycling to help our planet.

Sincerely,

Jermaine Isaacs
Decisions we make every day have an impact on the environment. (p. 3)

All life lives in thin layer: biosphere (p. 4)

Biosphere is oceans, rivers, land, air

Most of Earth covered in marine biomes

Two main types: marine and freshwater

Marine: salty; freshwater: not salty

Water biomes cover ¾ of planet (p. 5)

Recycling, walking instead of driving help environment

Throwing things away, buying new instead of recycling harm environment

Recycled bottles are made into playgrounds, jackets, and T-shirts.

Every day plastic bottles are thrown away or recycled. (p. 2)

2.5 million thrown away and end in landfills

takes 400 years for plastic to break down

Decisions we make every day have an impact on the environment. (p. 3)

Biomes are different types of environments.

Biomes have different plants and animals.

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Idea Tree

Title: Your Planet Needs You! (pp. 6–9)

**Topic:**

**Forest biomes all over the world (p. 7)**

- temperate not too hot or cold; trees lose leaves in fall
- tropical rainforests hot and wet; taiga cold with evergreen trees

**Desert biomes lack rainfall. (p. 6)**

- some deserts very cold and dry (Antarctica)
- animals in desert biomes adapt to extreme temperatures; nocturnal

**Grassland biomes are flat and don't have many trees. (p. 8)**

- in North America, grasslands in Midwest
- wild grasses now corn and wheat in North America grasslands

**Tundra biomes are very cold. (p. 9)**

- Alpine tundra in high mountains
- The ground is always frozen, so no trees grow
- In Africa, savannas are hot and dry grasslands.

**Two types are:**

- arctic and alpine

**Grassland biomes:**

- In North America, grasslands in Midwest
- wild grasses now corn and wheat in North America grasslands

**Forest biomes:**

- temperate not too hot or cold; trees lose leaves in fall
- tropical rainforests hot and wet; taiga cold with evergreen trees

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## Title: Your Planet Needs You! (pp. 10–12)

<table>
<thead>
<tr>
<th><strong>Cause</strong></th>
<th><strong>Effect</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actions of people</td>
<td>Biosphere is in trouble</td>
</tr>
<tr>
<td>Animals and fish hunted</td>
<td>Animals and fish disappearing from biosphere</td>
</tr>
<tr>
<td>Human population going up</td>
<td>Need more space to live and grow food—destroy, change, or pollute habitats</td>
</tr>
<tr>
<td>Plant a tree</td>
<td>Animals cannot survive and die out</td>
</tr>
<tr>
<td>Clean up park or school grounds</td>
<td>Replaces trees cut down</td>
</tr>
<tr>
<td>Meatless Mondays</td>
<td>Helps animals that live there</td>
</tr>
<tr>
<td>Composting</td>
<td>Less meat means less land and energy used for livestock</td>
</tr>
<tr>
<td></td>
<td>Helps recycle nutrients for new plants</td>
</tr>
</tbody>
</table>
Title: Your Planet Needs You! (p. 13)

To make a compost bin, drill holes in the bottom and sides of a bin, and line it with brown matter (dried leaves, shredded newspaper, etc.).

Add a layer of green matter (grass clippings, fruit scraps, etc.).

Sprinkle with water; close the lid.

Shovel each week until it looks like dirt.

Use the dirt on your yard or garden.
### T-Chart

**Title:** Your Planet Needs You! (pp. 14–18)

<table>
<thead>
<tr>
<th>Cause</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution puts harmful things in environment</td>
<td>Sewage and smoke released into the environment</td>
</tr>
<tr>
<td>Littering and adding trash to environment</td>
<td>Land pollution: trash like diapers, Styrofoam, and aluminum not biodegradable (won’t break down for many years)</td>
</tr>
<tr>
<td>Trash in landfills</td>
<td>Chemicals leak out into environment; humans and animals get sick</td>
</tr>
<tr>
<td>Factories, cars, ships, and planes burn fuel and release smoke and gases like carbon dioxide</td>
<td>Air pollution spreads and too much CO₂; Earth heats up</td>
</tr>
<tr>
<td>Chemicals and waste dumped into water</td>
<td>Water pollution: algae grow and take oxygen out of water; animals can’t survive; pollutes drinking water; millions of people die; sea animals choke on trash</td>
</tr>
<tr>
<td>Loud sounds from planes, construction, and trains</td>
<td>Noise pollution: drives away animals, bad for people’s hearing</td>
</tr>
<tr>
<td>Artificial lights from cities</td>
<td>Light pollution: confuses animals; people can’t see stars</td>
</tr>
<tr>
<td>Cause</td>
<td>Effect</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Put trash in trash can.</td>
<td>Keeps trash out of the environment</td>
</tr>
<tr>
<td>Recycle items like glass, paper, plastic, and metal.</td>
<td>Keeps them out of the landfill, and they can be made into new products</td>
</tr>
<tr>
<td>Eat organic foods.</td>
<td>Less fertilizer and pesticides used</td>
</tr>
<tr>
<td>Reuse plastic bags.</td>
<td>Keeps over a billion plastic bags out of landfills in a year</td>
</tr>
<tr>
<td>Reuse and repurpose items and make them into something new.</td>
<td>Don’t have to throw them away and saves having to buy new things</td>
</tr>
<tr>
<td>Walk instead of drive, or take the bus or carpool.</td>
<td>Fewer cars to make less fumes and air pollution</td>
</tr>
</tbody>
</table>
Energy comes from renewable and nonrenewable sources. (p. 20)

Renewable energy does not run out (ex. wind, solar, water, biomass)

Nonrenewable energy from fossil fuels (ex. oil, coal, propane)

Fossil fuels are from plants and animals that died millions of years ago.

Fossil fuels release CO₂ into the air.

Renewable energy sources less harmful to environment (p. 21)

Natural; don’t run out
don’t release CO₂ or air pollution

Getting fossil fuels means drilling or mining (p. 21)

doesn’t

Can be used to make electricity

Destroys animal habitat
Biomass

Fossil Fuels

From plants and animals millions of years ago
Adds CO₂ to the air

natural matter from plants and animals

CO₂ in plants recycled quickly
Does not change level of CO₂ in air

Title:
Targeted Treasure Hunt Teacher Edition
"Going green" means doing things to help the environment. (p. 25)

Ideas to go green (p. 27)
- Soy crayons, no. 2 pencils
- Reusable materials, low-energy light bulbs, cold water to wash clothes
- Reusable water bottles, recycle paper, reusable lunch box

Earth Day activities help the environment. (p. 26)

There are devices that take solar and wind energy and change it to electricity. (p. 25)

Solar panels are made of many solar cells that collect the sun's energy.

Turbines spin and change wind and water energy into electricity.

Recycling saves energy.

Buying organic food and less packaging saves energy.

Reading and learning about the environment so you can make good decisions.

It is important to go green every day.

We want a healthy biosphere for children and grandchildren.

Earth Day activities help the environment. (p. 26)

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Common Core State Standards
The following Common Core State Standards are addressed in this unit. Full program alignments can be found in the Reading Wings section of the SFAF Online Resources. Contact your SFAF coach for more information.

<table>
<thead>
<tr>
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<tbody>
<tr>
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</tr>
<tr>
<td><strong>Integration of Knowledge and Ideas</strong></td>
</tr>
<tr>
<td>RI.4.5 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.</td>
</tr>
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<td><strong>English Language Arts Standards:</strong> <em>Reading: Foundational Skills</em></td>
</tr>
<tr>
<td><strong>Phonics and Word Recognition</strong></td>
</tr>
<tr>
<td>RF.4.3 Know and apply grade-level phonics and word analysis skills in decoding words.</td>
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<tr>
<td><strong>English Language Arts Standards:</strong> <em>Writing</em></td>
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<td><strong>Text Types and Purposes</strong></td>
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<td>W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</td>
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