Crazy Camouflage and Other Awesome Animal Adaptations

Written by Robert E. Slavin and Kimberly Sargeant

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.
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Summary

Crazy Camouflage and Other Awesome Animal Adaptations describes how animals have changed over time and adapted to survive in their environments. Predators have developed traits that allow them to find and catch prey. Herbivores have developed ways to find food and physical attributes that allow them to eat particular plants and plant products. Adaptations also allow animals to blend in with their environments to avoid predators. Other adaptations enable animals to mimic the look of poisonous creatures or to appear larger to scare predators away. Physical adaptations or behaviors have also enabled animals to live in very hot or cold climates.

Instructional Objectives

<table>
<thead>
<tr>
<th>Reading</th>
<th>Word Power</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main idea and supporting details (MI)</td>
<td>Latin roots</td>
<td>Write an animal profile for a nature newsletter.</td>
</tr>
<tr>
<td>Students will determine the main idea and supporting details in an informational text.</td>
<td>Students will use their understanding of Latin roots to identify the meanings of words.</td>
<td>Students will write an animal profile giving details about the habitat and adaptations of a particular animal they have read about.</td>
</tr>
</tbody>
</table>

Teacher’s Note: This book contains a glossary and an index. Point out to students that the bold words in the text can be found in the glossary.
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 everyone participates, 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 Crazy Camouflage and Other Awesome Animal Adaptations by Robert E. Slavin and Kimberly Sargeant. As we read, we’ll identify the main ideas and supporting details in the text. The main idea is the most important idea in a passage. It is what the passage is mainly about. Supporting details provide additional information to help us learn more about a topic.
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 texts differ 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.

As we read this text, we will use TIGRRS. The first step of TIGRRS is to identify the topic of the text. I’ll page through the text and look at the pictures, headings, and other text features to identify the topic. I think the subtitle is a good clue, and the word adaptations is repeated in the table of contents and the headings. I think the topic of the text is how animals adapt.

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

– Write the word “adapt” on the board. Use Think-Pair-Share to have students tell what they think the word adapt means. Randomly select a few students to share, and write their ideas on the board. Refer students to the glossary on page 29 and the definitions of adapt and adaptations. Connect students’ responses to these definitions. Reinforce the idea that students will read about adaptations, which are changes in the behavior or body parts of an animal that help the animal to survive.

– Point out the title of the book, Crazy Camouflage and Other Awesome Animal Adaptations. Use Think-Pair-Share to have students identify what camouflage is. Randomly select a few students to share, and write their ideas on the board. Reinforce the idea that camouflage hides or disguises something.

– Use Think-Pair-Share to have students explain why animals use camouflage. Randomly select a few students to share. (Answers will vary.) Animals use camouflage to hide from other animals so they won’t be caught or so they can catch other animals.

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

We already completed the first step of TIGRRS, which was identifying the topic. The next step of TIGRRS is to predict the authors’ intent. Looking at the text, I think the authors’ intent might be to tell readers about how different animals have adapted to survive.

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. Introduce and display an idea tree. Explain the different parts of the graphic organizer and what will be written in each part.
The next step of TIGRRS is to identify the graphic organizer we will use to record important ideas. We know that the topic of the text is how animals adapt. I'll take a look at the text and find clues that might tell us how the text is organized. Looking at the table of contents and the headings, it looks like the authors have organized the text by what animals must do to survive, such as finding food or staying safe. Looking at the pictures and captions in each section, it looks like the authors will give details about how different animals have adapted to survive. So the information is organized by main ideas and supporting details. When the text is organized as main ideas and supporting details, an idea tree works well as a graphic organizer. Display an idea tree. We write a main idea in the circle. Then we write the details that support that main idea on the lines attached to the circle. As we read about animal adaptations, we will add notes about the important information to the idea tree.

- 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>sprints page 8</td>
<td>base word + ending: sprint + s</td>
<td>runs at top speed for a short distance</td>
<td>When it is time for dinner, my hungry brother sprints to the table.</td>
</tr>
<tr>
<td>keen page 11</td>
<td>blend</td>
<td>sharp</td>
<td>The owl can hear the tiny rustle of a mouse because it has a keen sense of hearing.</td>
</tr>
</tbody>
</table>
Using the Targeted Skill (Introduction and Definition)

Introduce the skill and its importance in informational text.

This cycle we will focus on main ideas and supporting details. The main idea is the most important idea in a passage—what the passage is mainly about. Supporting details provide additional information to help us learn more about the main ideas. Let’s practice identifying a main idea and some supporting details.

Display the following blackline master, and read the paragraph aloud.

**Porcupine Defense**

Porcupines have a special adaptation that helps to protect them. A porcupine’s body is covered in 30,000 quills. These quills are stiff hollow hairs with sharp hooks at the tips. When another animal threatens, a porcupine’s quills are its defense. If an animal brushes against a porcupine, the quills detach, and the sharp hooks become deeply embedded in the attacker’s skin. The quills are very difficult to remove and cause painful wounds.
Display an idea tree. Use a **Think Aloud** to model identifying the main idea of the paragraph and recording it on an idea tree.

**What is the main idea of this paragraph?** What do all the details talk about? Looking at the heading of the paragraph and the first sentence, I think the main idea is that a porcupine has an adaptation that helps it to defend itself. I will write this main idea in a circle on the idea tree. Model recording this main idea on an idea tree.

Use **Think-Pair-Share** to have students identify details that support the main idea. Randomly select a few students to share.

**What are some supporting details in the paragraph?** What are some details that tell more information about this main idea? Give students time to discuss. That’s right. One supporting detail about the porcupine’s defense is that the animal has 30,000 sharp quills with hooks. Model adding this detail to the idea tree. **What is another supporting detail?** Yes, when an attacker touches it, the quill embeds in the other animal’s skin. Model adding this detail to the idea tree. Another detail is that the quill is painful and hard to take out. These are details that support the main idea about the porcupine’s adaptation to defend itself.

Tell students that they will identify main ideas and supporting details as they read 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.
- Display another blank idea tree. Tell students that you will only read for main ideas as you read the text the first time.
- Read page 2 (paragraph 1) aloud. Note that the authors begin the book with a story about the beaver.
- Read pages 2 (paragraph 2)–5 aloud. Point out that students’ prediction of the author’s intent was confirmed. The book will be about animals and the traits that help them survive.
- Read pages 6 and 7 aloud. Use a **Think Aloud** to model identifying the main idea.

**What big idea are the authors talking about on pages 6 and 7?** The heading of this section is “Adaptation.” An adaptation is a change that happens over time. The text talks a lot about the scientist Darwin. One sentence says that Darwin taught the world a lot about adaptation. But what exactly did he find out? The text says that Darwin found out that animals change over time and adapt to their environments. I think that is the main idea of this section. It is the important idea that the authors want me to know, and it is what the details talk about. Model recording the main idea on the idea tree.
Tell students that as they read, they should look for main ideas and clues about the main ideas. Remind them to ask themselves, “What do the title, headings, and repeated words tell me about the main idea? What are all the details about?”

**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. Give an example of a predator. What makes it a predator? What is this animal’s prey?</td>
</tr>
<tr>
<td>2. What adaptations allow a cheetah to run fast and catch prey?</td>
</tr>
<tr>
<td>3. What conclusions can you draw about the shapes of bird beaks?</td>
</tr>
<tr>
<td>4. Which sentence below states the main idea of pages 12 and 13?</td>
</tr>
<tr>
<td>a. Animals can avoid predators by blending in.</td>
</tr>
<tr>
<td>b. Chameleons can change their skin color.</td>
</tr>
<tr>
<td>c. Some birds and fish are dark on the top and light on the bottom.</td>
</tr>
<tr>
<td>d. The color of some animals’ fur changes in winter.</td>
</tr>
</tbody>
</table>

Tell how you figured out the main idea. (Write-On)

- 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 8–14 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. Give an example of a predator. What makes it a predator? What is this animal’s prey? [MI]

   (Answers will vary.) 100 points = An example of a predator is an alligator snapping turtle because this animal is a carnivore. It hunts and eats other animals. Its prey is fish and frogs that it catches with its wormlike tongue.

   90 points = An example of a predator is an alligator snapping turtle. It hunts and eats other animals like fish and frogs.

   80 points = An alligator snapping turtle catches fish and frogs.

2. What adaptations allow a cheetah to run fast and catch prey? [DC]

   100 points = The adaptations that allow a cheetah to run fast and catch prey are long legs and sharp claws. A cheetah also has a big heart and lungs that help it breathe when it is running.

   90 points = The adaptations that allow a cheetah to run fast and catch prey are long legs and sharp claws.

   80 points = Cheetahs can run fast because they have long legs.
3. What conclusions can you draw about the shapes of bird beaks? [DC]

**100 points** = *From the shapes of bird beaks, I can conclude what kinds of foods the birds eat.* For example, a bird with a big sharp beak would probably eat hard seeds or nuts. Its beak is built to break these foods open. **90 points** = *From the shapes of bird beaks, I can conclude what kinds of foods the birds eat.* **80 points** = *I can conclude what kinds of foods the birds eat.*

4. Which sentence below states the main idea of pages 12 and 13? [MI]

a. Animals can avoid predators by blending in.
b. Chameleons can change their skin color.
c. Some birds and fish are dark on the top and light on the bottom.
d. The color of some animals’ fur changes in winter.

Tell how you figured out the main idea. (Write-On)

**100 points** = *I figured out the main idea by looking at the headings “Staying Safe” and “Blending In.” Also, the pictures and details are about how different animals blend in, such as the snowshoe hare. Its white fur blends in with the snow.* **90 points** = *I figured out the main idea by looking at the headings “Staying Safe” and “Blending In.” Also, the pictures and details are about how different animals blend in.* **80 points** = *I figured out the main idea from the headings.*

- 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.

**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.

Team Talk Extenders

Would you describe humans as carnivores, herbivores, or omnivores? How has this adaptation helped humans to survive in different environments?

Page 14 describes some ways that animals scare predators away. Can you think of other animals that use sights or sounds to frighten predators?

- Award team celebration points.

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.
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.

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.

<table>
<thead>
<tr>
<th>Team Celebration Points</th>
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</thead>
<tbody>
<tr>
<td>- How many points did you earn today?</td>
</tr>
<tr>
<td>- How well did you use the team cooperation goal and behavior?</td>
</tr>
<tr>
<td>- How can you earn more points?</td>
</tr>
</tbody>
</table>

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.
Day 2 / Crazy Camouflage and Other Awesome Animal Adaptations

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 can you learn about a bird by looking at its beak?**

**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 *Crazy Camouflage and Other Awesome Animal Adaptations*, we read how some animals have adapted to find food and to keep themselves safe. For example, we read about the adaptations that enable a cheetah to run fast to catch prey and about how the snowshoe hare’s white fur blends in with the snow to hide it from predators.*

- Display the idea tree. Tell students that you will only read for main ideas as you read the text the first time.
- Tell students that you will continue to record important ideas on the graphic organizer.
- Remind students of the clues they can use to help them find the main idea in a section of text. They can ask themselves, “What do the headings, subheadings, pictures, and repeated words tell me about the main idea? What do all the details talk about?”
- Read pages 15 and 16 aloud. Note the main heading for this section on the previous page, “Frightening Features.” Use a **Think Aloud** to model identifying the main idea of this section and how you figured it out.

*What is the main idea of these pages? I will try to put the main idea in a sentence. I think the main idea is that animals have adapted ways to scare predators away. I asked myself, “What do the headings, pictures, and repeated words tell about the main idea?” The heading tells me that the topic is frightening features. The subheadings Yuk, Pew, Zap, and Ouch are clues to what features animals use to frighten predators away.*

- Model recording this main idea on the idea tree.
- Read pages 17–21 aloud, and add main ideas to your idea tree as you read.
- Tell students that as they read, they should look for main ideas and clues about the main ideas. Remind them to ask themselves, “What do the headings, subheadings, pictures, and repeated words tell me about the main idea? What are all the details about?”
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.

Student Edition, page 2

<table>
<thead>
<tr>
<th>Team Talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which sentence below states the main idea of page 23?</td>
</tr>
<tr>
<td>a. An animal’s energy level slows down during hibernation.</td>
</tr>
<tr>
<td>b. Eating a lot in the fall builds up body fat.</td>
</tr>
<tr>
<td>c. Some animals hibernate to survive the winter.</td>
</tr>
<tr>
<td>d. Animals don’t eat during hibernation.</td>
</tr>
<tr>
<td>Tell how you figured out the main idea. (Write-On)</td>
</tr>
<tr>
<td>2. Why do animals migrate? Give two examples of animals that migrate.</td>
</tr>
<tr>
<td>3. Why do the authors include the chart on page 27? What do they want you to know?</td>
</tr>
<tr>
<td>4. What question does page 28 answer?</td>
</tr>
<tr>
<td>a. What characteristics help animals to survive?</td>
</tr>
<tr>
<td>b. What do biologists and zoologists do?</td>
</tr>
<tr>
<td>c. What animals can be found underwater?</td>
</tr>
<tr>
<td>d. How do biologists take pictures of animals?</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 read and restate: SR pages 22–28 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. Which sentence below states the main idea of page 23? MI
   a. An animal’s energy level slows down during hibernation.
   b. Eating a lot in the fall builds up body fat.
   c. Some animals hibernate to survive the winter.
   d. Animals don’t eat during hibernation.
Tell how you figured out the main idea. (Write-On)

100 points = I figured out the main idea because on page 23, the words hibernate and hibernation are repeated, so I know this is the topic. The other answer choices are details about hibernation, but “c” tells what all the details are talking about.
90 points = I figured out the main idea because the words hibernate and hibernation are repeated. The other answer choices are details.
80 points = The other answer choices are details.
2. Why do animals migrate? Give two examples of animals that migrate. \( CE \)

   100 points = Animals migrate to escape cold weather and go where it is warmer and they can find food to survive. Some examples of animals that migrate are monarch butterflies and bison. 90 points = Animals migrate to go where it is warm and there is food. Some birds migrate south in winter. 80 points = They go where it is warm and there is food. Bison migrate.

3. Why do the authors include the chart on page 27? What do they want you to know? \( TF \bullet AP \)

   100 points = I think the authors include the chart to show the ways that animals adapt to survive. The chart shows the ways that animals’ bodies and their behaviors change over time. It is a summary of information from the rest of the book. 90 points = I think the authors include the chart to show the ways that animals adapt their bodies and how they act. 80 points = It shows ways that animals adapt to survive.

4. What question does page 28 answer? \( QU \)
   a. What characteristics help animals to survive?
   b. What do biologists and zoologists do?
   c. What animals can be found underwater?
   d. How do biologists take pictures of animals?

- 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.
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.

Page 17 describes animals who band together to stay safe. What other animals live in groups or communities? What are some other advantages to banding together?

Some poisonous animals protect themselves by showing off with bright colors. Why wouldn’t these animals be protected if they were dull colored?

– Award team celebration points.

Team Talk Extenders

– 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.

Write-On Discussion

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 or display these on the board.

Student Edition, page 1

Pages 25–27 (stopping at “Animals need food.”)

– 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.

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**WORD POWER**  
**TP**

**Timing Goal: 10 minutes**

- Introduce the Word Power skill by showing a graphic of the anchor. Tell students that an anchor holds a boat in place, much like the roots of a tree hold the tree in place. Tell students that words also have roots.

- Explain that word roots are used to build other words and that understanding word roots can help us define words.

- Reveal the Word Treasure (skill).

- Write the word “unique” on the board, and write the root word “uni-” under the anchor. Tell students that unique means one of a kind. Use Think-Pair-Share to have students discuss what they think the Latin root uni- means. Randomly select a few students to share. It could mean one because unique means one of a kind.
Tell students that many words have old origins and come from Latin and Greek. Point to the letters uni in the word unique. Explain that this is a Latin root that means one. Make the connection again that something unique is one of a kind.

Display the first row of the three-column chart.

<table>
<thead>
<tr>
<th>Latin Root</th>
<th>Meaning</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>uni-</td>
<td>one</td>
<td>unique, unicycle,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>unite, unison</td>
</tr>
</tbody>
</table>

Use Think-Pair-Share to have students identify what a unicycle is. Randomly select a few students to share. I think it is a cycle that has one wheel.

Use Think-Pair-Share to have students identify what the word unite means. Randomly select a few students to share. Uni- means one, and unite means coming together as one, like the United States.

Point out that knowing the word root can help us understand the meaning of the word. Explain that you will add roots, their meanings, and example words each day.

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**

The Latin root uni- means one. Use this information to answer the following questions.

1. The choir sang in unison. What does the word unison mean in this sentence?
   a. outside the room
   b. together as one
   c. very loudly
   d. very softly

2. The houses were all of uniform size. What does the word uniform mean in this sentence?
   a. all alike from one to the next
   b. giant or enormous
   c. extremely small and cramped
   d. average or ordinary
3. 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.

4. Choose the word that best fits in the blank.
   The little boy wanted to copy everything his big brother did, so he tried to **mimic** the way he threw a baseball.

- 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

<table>
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<th>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.</th>
</tr>
</thead>
</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?
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.

**What are some examples of animals that migrate?**

**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 we continued reading and added main ideas to our idea trees. The heading of one section of text was “Frightening Features.” We figured out that the main idea was that animals have adapted ways to scare predators away.*

- 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 6 and 7 aloud. (For the purposes of main ideas and supporting details, the informational part of the text begins on page 6.)
- Use a **Think Aloud** to model identifying the details that support the main ideas from day 1. Add the details to the idea tree accordingly.

*The first time we read pages 6 and 7, we wrote the main idea that Darwin found out animals change over time and adapt to their environments. If my main idea is correct, I should be able to find information that supports it. Model rereading the text on pages 6 and 7. Some information that supports my main idea is that Darwin went to the Galápagos Islands and saw many new animals. Another detail is that people thought animals didn’t change. I think that is important because on the Galápagos Islands, Darwin saw things differently. I’ll add these to the idea tree.*

- Use **Think-Pair-Share** to have students identify another supporting detail, and randomly select a few students to share. Another supporting detail is Darwin figured out that animals that are better at getting food and avoiding predators survive, but others die out.
- Add the supporting details to the idea tree. Point out that all these details support the main idea that animals change over time and adapt to their environments.
- 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, #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>
</tr>
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<tbody>
<tr>
<td>1. What adaptation does the alligator snapping turtle have for defense? [DC]</td>
</tr>
<tr>
<td>2. How are herbivores and omnivores different? [CC]</td>
</tr>
<tr>
<td>3. What adaptations help nocturnal animals to hunt in the dark? [MI]</td>
</tr>
<tr>
<td>4. Pages 12 and 13 mainly tell how animals avoid predators by blending in. Give at least one detail that tells more about this main idea. (Write-On) [MI]</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 8–14 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. **What adaptation does the alligator snapping turtle have for defense?** [DC]
   
   **100 points** = An adaptation that the alligator snapping turtle has for defense is a hard shell with spikes on it. Predators would have trouble biting through the hard shell and the spikes. It is a snapping turtle, so it could also use its beak to bite a predator. **90 points** = An adaptation that the alligator snapping turtle has for defense is a hard shell with spikes on it. Predators would have trouble biting through the hard shell. **80 points** = It has a hard, spiky shell.

2. **How are herbivores and omnivores different?** [CC]
   
   **100 points** = Herbivores and omnivores are different because herbivores are plant eaters. Omnivores eat both plants and animals. People are omnivores. **90 points** = Herbivores and omnivores are different because herbivores eat plants, and omnivores eat plants and animals. **80 points** = One eats plants, and the other eats plants and animals.

3. **What adaptations help nocturnal animals to hunt in the dark?** [MI]
   
   **100 points** = Many nocturnal animals have large eyes so they can see in the dark. Another adaptation is sharp hearing to help them find prey. For example, bats bounce sound off objects and listen for echoes to find bugs in the dark. **90 points** = Two adaptations that nocturnal animals have are large eyes to see in the dark and good hearing to find prey. **80 points** = They have large eyes to see in the dark and good hearing.

4. **Pages 12 and 13 mainly tell how animals avoid predators by blending in. Give at least one detail that tells more about this main idea.** (Write-On) [MI]
   
   *(Answers will vary.)* **100 points** = A detail that supports the main idea is that fish and penguins blend in by being dark on the top and light on the bottom. Predators from above and below cannot see them. **90 points** = A detail that supports the main idea is that fish and penguins blend in by being dark on the top and light on the bottom. Predators can’t see them. **80 points** = Fish and penguins are light on the bottom and dark on top to blend in.

- 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.

#### Team Talk Extenders

- Looking at the map of the Galápagos Islands on page 6, why do you think no European before Darwin had seen the animals there?
- There are animals that live only on the Galápagos Islands and nowhere else. Why do you think that is?

- 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 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

- Remind students of the Word Power skill (Latin roots) and the Word Treasure clue that Captain Read More uses for them (an anchor).
- Use Think-Pair-Share to have students identify the vocabulary word that contains the root uni- and what the word means. Randomly select a few students to share. Unique: one of a kind.
- Remind students that knowing the word root can help them understand the meaning of the word.
Write the word “marine” on the board, and write the root word “mar-” under the anchor. Remind students that they know the meaning of marine because it is one of their vocabulary words. Use Think-Pair-Share to have students discuss what they think the Latin root mar- means. Randomly select a few students to share. It could mean sea because marine means of the sea.

Display the first two rows of the three-column chart.

<table>
<thead>
<tr>
<th>Latin or Greek Root</th>
<th>Meaning</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>uni-</td>
<td>one</td>
<td>unique, unicycle, unite, unison</td>
</tr>
<tr>
<td>mar-</td>
<td>sea</td>
<td>marine, submarine, aquamarine, marina</td>
</tr>
</tbody>
</table>

Use Think-Pair-Share to have students explain what they think the word submarine has to do with the Latin root mar-. Randomly select a few students to share. Mar- means sea, and marine means of the sea, so a submarine goes under the sea.

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**

The Latin root mar- means sea. Use this information to answer the following questions.

1. She wore a beautiful necklace with aquamarine gems that matched her dress. What does the word aquamarine mean in this sentence?
   a. color of the forest
   b. color of the desert
   c. color of the snow
   d. color of the sea

2. Maddie left early in the morning to meet her dad at the marina. What does the word marina mean in this sentence?
   a. a place where crops are grown
   b. a place where boats tie up
   c. a small patch of grass
   d. a clearing in a forest
### Building Meaning

<table>
<thead>
<tr>
<th>sprints</th>
<th>keen</th>
<th>avoid</th>
<th>mimic</th>
</tr>
</thead>
<tbody>
<tr>
<td>marine</td>
<td>physically</td>
<td>generations</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

3. 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.

4. Raoul will win the race if he **sprints** to the finish line. **Sprints** means—
   a. zig zags quickly.
   b. runs at full speed.
   c. skips ahead of others.
   d. walks at a slow speed.

- 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

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<tbody>
<tr>
<td>- How many points did you earn today?</td>
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<tr>
<td>- How well did you use the team cooperation goal and behavior?</td>
</tr>
<tr>
<td>- How can you earn more points?</td>
</tr>
</tbody>
</table>
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.
- 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.

What adaptations help nocturnal animals to hunt in the dark?

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 Crazy Camouflage and Other Awesome Animal Adaptations to find supporting details. We added these details to our idea trees. We found details about how animals blend in with their surroundings, such as the walking stick blending in with leaves and the snowshoe hare’s white fur blending in with the snow.**

- 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.
- Remind students that as they reread the text, they should look for details that support the main ideas they found the first time they read.
- Reread pages 15 and 16 aloud. Remind students of the main ideas identified on day 2. Use Team Huddle to have students identify the supporting details. Use Random Reporter to select students to respond. Fill in the idea tree accordingly.

**Pages 15 and 16 are mainly about ways that animals have adapted to scare predators away. What additional information did you read? What details can you add to your idea trees? (Answers will vary.)** One detail that supports this main idea is that some animals, such as jellyfish and scorpions, can sting to scare predators away. Another detail is that some animals, such as porcupines and hedgehogs, have sharp spines or quills that scare predators away.

- Reread pages 17–21 aloud, and add supporting details to your idea tree as you read.
- Tell students to continue to look for details that support the main ideas as they reread the second half of Crazy Camouflage and Other Awesome Animal Adaptations.

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.

Point out that question #4 asks them to summarize the text using their graphic organizers. Tell them that this will complete the TIGRRS process.

**Team Talk**

1. A main idea on page 23 is that some animals hibernate to survive the winter. Give at least one detail that supports this main idea. (Write-On) [MI]

2. What question is answered on page 25? [QU]
   - a. What types of birds migrate?
   - b. How do animals know when winter is coming?
   - c. When did animals first start to migrate?
   - d. Why do some animals migrate?

3. What two animals that live in cold climates have a similar adaptation to stay warm? What is this adaptation? [CC]

4. With the help of your idea tree, summarize the information in the text *Crazy Camouflage and Other Awesome Animal Adaptations*, beginning with page 6. [SU]

**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 22–28 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. A main idea on page 23 is that some animals hibernate to survive the winter. Give at least one detail that supports this main idea. (Write-On) [MI]

   **100 points** = Details that support this main idea are that hibernation is like sleeping and that an animal’s energy slows down. Another detail is that animals eat a lot in the summer and fall to store fat. **90 points** = A detail that supports this main idea is that hibernation is like sleeping and that an animal’s energy slows down. **80 points** = An animal’s energy slows down.

2. What question is answered on page 25? [QU]

   a. What types of birds migrate?
   b. How do animals know when winter is coming?
   c. When did animals first start to migrate?
   d. Why do some animals migrate?

3. What two animals that live in cold climates have a similar adaptation to stay warm? What is this adaptation? [CC]

   **100 points** = Two animals that have a similar adaptation for keeping warm are the polar bear and the penguin. The polar bear has black skin, and the penguin has black feathers. Black attracts heat to keep the animals warm. **90 points** = Two animals that have a similar adaptation for keeping warm are the polar bear and the penguin. The polar bear has black skin, and the penguin has black feathers. **80 points** = The polar bear has black skin, and the penguin has black feathers.

4. With the help of your idea tree, summarize the information in the text Crazy Camouflage and Other Awesome Animal Adaptations, beginning with page 6. [SU]

   **100 points** = Darwin traveled to the Galápagos Islands and found that animals change over time and adapt to their environments. For example, animals have adapted different ways to catch or find food. Animals have also adapted ways to protect themselves, such as camouflage to blend in with their surroundings and sticking together in groups. They also have adaptations that scare predators away, such as sharp spines or smelling bad, like skunks and stink bugs do. Some adaptations allow animals to live in very cold or hot places or to migrate to survive. **90 points** = Animals change over time and adapt to their environments. They have adapted ways to find food and protect themselves. One way they protect themselves is by blending in, or camouflage. Animals have also adapted to live in very hot or cold climates. **80 points** = Animals change over time and adapt to their environments. They have adapted ways to find food and protect themselves. They have adapted to cold and hot places.
- 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.

**Team Talk Extenders**

Look at the chart on page 27. Choose one of the adaptations in the first column, and give two examples of animals with these adaptations. Explain how these adaptations help the animals to survive.

- 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.

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

**Pages 25–27 (stopping at “Animals need food.”), page 14, or pages 22 and 23 (stopping at “Some animals hibernate…”)**

- 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 TP
Timing Goal: 10 minutes

- Remind students of the Word Power skill (Latin roots) and the Word Treasure clue that Captain Read More uses for them (an anchor).
- Remind students that knowing the word root can help them understand the meaning of the word.
- Write the word “construct” on the board, and write the root word “struct-” under the anchor. Display the following three-column chart.

<table>
<thead>
<tr>
<th>Latin Root</th>
<th>Meaning</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>uni-</td>
<td>one</td>
<td>unique, unicycle, unite, unison</td>
</tr>
<tr>
<td>mar-</td>
<td>sea</td>
<td>marine, submarine, aquamarine, marina</td>
</tr>
<tr>
<td>struct-</td>
<td>build</td>
<td>structure, construct, instruct</td>
</tr>
</tbody>
</table>

Blackline master provided.

- Display the Word Power Challenge. Use Team Huddle To have students identify the meaning of the underlined word.

<table>
<thead>
<tr>
<th>Word Power Challenge</th>
<th>What does structure mean?</th>
</tr>
</thead>
</table>

- Use Random Reporter to select students to share. *Something that is built or put together, such as a house.*
- 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

The Latin root *struct‑* means build. Use this information to answer the following questions.

1. The construction site was fenced off so no one could get in the workers’ way. What does the word *construction* mean in this sentence?
   a. concert
   b. school
   c. building
   d. parkland

2. Milton wanted to improve his Chinese, so he found some online instructors to help him. What does the word *instructors* mean in this sentence?
   a. those who build knowledge
   b. those who send supplies
   c. those who collect taxes
   d. those who watch birds

Building Meaning

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<tr>
<th>sprints</th>
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<th>avoid</th>
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<td>marine</td>
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3. 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.

4. Choose the word that fits best in the blank.
   On Thanksgiving, my grandmother, my parents, and all the cousins came, so there were three *generations* at the table.

- 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.

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DAY 5

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 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 an animal’s adaptation for survival.

Vocabulary TP
- 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. SR

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 identifying main ideas and supporting details.
- 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. 
- 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.

| 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? |
Monarch Butterflies and Warning Colors

Some animals hide from predators by blending into their surroundings. Other animals protect themselves by standing out! These animals have bright colors such as red, yellow, orange, or bold black and white. How does standing out protect an animal from predators?

Let’s look at the monarch butterfly. Its wings are bright orange-and-black striped. A predator such as a bird can easily see a monarch. But if it tries to eat this butterfly, it gets a surprise. The monarch tastes very bad! The bird remembers the bright colors. It never tries to eat this butterfly again. The colors are a sign that says, “Don’t eat me, or you’ll be sorry.”

The monarch gets its bad taste from the food it eats. Monarch caterpillars eat the leaves and stems of milkweed plants. These plants have a poison. The poison gets in the caterpillar’s body and stays there when the caterpillar changes into a butterfly. The milkweed beetle is another insect that gets its protection from eating the milkweed plant. This insect also sports warning colors. These beetles are bright red with black spots!

Sources: National Park Service
www.nps.gov/romo/warning_coloration.htm
University of Minnesota
www.monarchlab.org/Lab/Research/Topics/Milkweed/Default.aspx

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 the monarch butterfly and how it uses warning colors. I know because of the title. Also, the text talks about how warning colors can protect an animal. 15 points = The topic of this text is the monarch butterfly and how it has warning colors. I know because of the title. 10 points = The monarch butterfly’s colors. I know because of the title.
2. What is the intent of the author?  
   a. to explain where monarch butterflies can be found  
   b. to compare monarchs and milkweed beetles  
   c. to explain how warning colors protect monarch butterflies  
   d. to explain how the milkweed plant protects itself  

   How do you know?  
   
   **20 points** = I know that the intent of the author is to explain how warning colors protect monarch butterflies because of the title. Also, the first paragraph tells about bright warning colors, and the next paragraphs tell how the monarch's bright colors and taste help to protect it from predators.  
   **15 points** = I know that the intent of the author is to explain how warning colors protect monarch butterflies because of the title. Also, the first paragraph tells about bright warning colors.  
   **10 points** = I know because of the title and first paragraph.

3. A main idea of this passage is that having bright colors and standing out can help an animal to survive. Give at least one detail that tells more about this main idea.  

   **20 points** = A detail that supports this main idea is the example of the monarch butterfly. It has bright orange-and-black wings to stand out, but its body has poison from the milkweed plant that makes the butterfly taste terrible. Predators see the warning colors and don't eat the monarch.  
   **15 points** = A detail that supports this main idea is about the monarch butterfly. It has bright orange-and-black wings to stand out, but its body has poison from the milkweed plant that makes the butterfly taste terrible.  
   **10 points** = The monarch has bright colors to stand out, but its body has poison, so it tastes terrible.

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

   **20 points** = Some animals, such as the monarch butterfly, stand out with bright colors. The bright warning colors are protection from predators such as birds. The colors warn predators that the butterfly tastes bad, so they learn not to eat it. The bad taste comes from the milkweed plant that the monarch caterpillar eats. The plant's poison gets in the butterfly's body.  
   **15 points** = Some animals, such as the monarch butterfly, stand out with bright colors. The colors warn birds that the butterfly tastes bad, so they learn not to eat it. The bad taste comes from the milkweed plant.  
   **10 points** = The monarch has bright colors. The colors warn birds not to eat the butterfly because it tastes bad.
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

Use the information on the chart below to answer the following questions. Write the answers on your paper.

<table>
<thead>
<tr>
<th>Latin or Greek Root</th>
<th>Meaning</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>uni-</td>
<td>one</td>
<td>unique, unicycle, unite, unison</td>
</tr>
<tr>
<td>mar-</td>
<td>sea</td>
<td>marine, submarine, aquamarine, marina</td>
</tr>
<tr>
<td>struct-</td>
<td>build</td>
<td>structure, construct, instruct</td>
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</tbody>
</table>

1. The mariner told me some amazing stories about his travel adventures.

What does the word mariner mean in this sentence?

- a. teacher
- b. soldier
- c. hunter
- d. sailor

2. The old castle was destroyed long ago, but a group from the museum wants to reconstruct it.

What does the word reconstruct mean in this sentence?

- a. find evidence
- b. do research
- c. read about
- d. build again

3. Yasmine loved to read fantasy stories about magical animals such as dragons and unicorns.

What does the word unicorns mean in this sentence?

- a. creatures with one horn
- b. creatures with green scales
- c. creatures with three heads
- d. creatures with large teeth
4. In the water ballet, the swimmers all move in unison to the music. What does the word unison mean in this sentence?
   a. in the water
   b. at one time
   c. in a pool
   d. near the edge

Building Meaning

<table>
<thead>
<tr>
<th>sprints</th>
<th>keen</th>
<th>avoid</th>
<th>mimic</th>
</tr>
</thead>
<tbody>
<tr>
<td>marine</td>
<td>physically</td>
<td>generations</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

5. Write a meaningful sentence for the word mimic.

   10 points = One thing Lila did to tease her sister was to mimic her like a parrot and repeat everything she said. 5 points = One thing Lila did to tease her sister was to mimic her like a parrot. 1 point = One thing Lila did to tease her sister was to mimic her.

6. An interesting characteristic of that type of beetle is that it swims.

7. When I call my dog to come in, she sprints across the yard and dashes into the house. Sprints means—
   a. runs full speed.
   b. trots quickly.
   c. bounces up and down.
   d. walks slowly.

8. The zoo exhibit had big saltwater tanks with marine animals such as sea turtles and sea horses.

9. I couldn't read the sign up ahead, but Lori had keen vision and told me the name of the town. Keen means—
   a. funny.
   b. blurry.
   c. sharp.
   d. double.

10. The athlete exercises every day and is physically fit.

11. Generations of my family have enjoyed this special peach dessert that my great-great-grandmother invented.

12. One way to avoid traffic jams is to travel after rush hour when the traffic is lighter.
ACTIVE INSTRUCTION
Timing Goal: 25 minutes

Set the Stage
- Introduce the writing goal.

Today you will write an animal profile for a nature newsletter.

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 context of a nature newsletter.

A newsletter is a collection of articles written to keep readers informed about a topic. For example, a nature newsletter might include articles about particular plants and animals, seasonal changes, or the wildlife that you can find in different habitats such as deserts or oceans. Today you will choose an animal that you know something about and write an animal profile for a nature newsletter.

Teacher’s Note: This would be an opportunity to have students refer to available books or articles on wildlife for information. Online sources for information about animals are http://kids.nationalgeographic.com/kids/animals/ and www.switcheroozoo.com/animallist.htm.
- Display the blackline master. Explain to students that this is a sample animal profile. Review the types of information in the profile: the type of animal, where it lives, food the animal eats (plant eater or meat eater), and adaptations it has made to survive in its environment.
**Animal Profile: The Bat**

**Type:**
Bats are small mammals.

**Where they live:**
Bats live all over the world. They live in trees, caves, barns, attics, and under bridges.

**Food:**
Most bats eat insects. They catch them while they are flying. Some bats eat fruit.

**Adaptations:**
- **Physical**—Bats are the only mammals that have wings and can fly. Bats have keen hearing. They bounce sounds off objects around them and use echoes to find insects in the dark.
- **Behavior**—Bats are nocturnal. This means they are active at night and sleep during the day. Bats hibernate in the winter.

Refer students to the chart on page 27 in *Crazy Camouflage and Other Awesome Animal Adaptations*. Remind them that animals have physical adaptations. These are adaptations of their bodies, such as large beaks, camouflage colors, or blubber to keep them warm. Animals also have adaptations in their behavior such as hibernating, burrowing underground for shelter, or being nocturnal and coming out only at night. Remind students to include these two types of adaptations in their animal profiles.
ADVENTURES IN WRITING
Timing Goal: 65 minutes

Planning

- Introduce the activity.

  Remember that today you will write an animal profile to inform readers about a particular animal.

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

  Writing Prompt
  Imagine that you are writing an animal profile for a nature newsletter. Choose an animal that you learned about in the text *Crazy Camouflage and Other Awesome Animal Adaptations*. Write the name of the animal as the title. Tell what type of animal it is (mammal, fish, reptile, etc.). Tell where the animal lives, what food the animal eats, and two adaptations (one physical and one behavioral) it has to survive. Remember to write your ideas in complete sentences.

  Scoring Guide
  Your profile begins with a title that names the animal.  
  5 points
  You describe what type of animal it is, where it lives, and what food it eats.  
  15 points each (45 points maximum)
  You describe two adaptations the animal has (physical and behavioral).  
  20 points each (40 points maximum)
  The profile is written in complete sentences.  
  10 points

- 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 web. This will help us put our thoughts in the right order as we write our animal profiles.
- 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**

![Sample Graphic Organizer Diagram]

**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 profile.

**Nature Times**

**Animal Profile:**

**Alligator Snapping Turtle**

**Type:**
Alligator snapping turtles are reptiles.

**Where they live:**
They live in rivers.

**Adaptations:**
- Physical—They have a tongue that looks like a worm.
- Behavior—The turtles use their tongues to attract prey.

Use **Think-Pair-Share** to have students identify any missing information that the writer should include, and randomly select a few students to share. The profile does not include information about what the alligator snapping turtle eats.

Remind students that a guideline in the scoring guide states that they need to include what the animal eats.

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.
- Have students tell their partners whether they think the profile includes all the information and point out any missing information.
- Ask students to share and respond with their partners.
- Using the chart in the student routines, review how to make revisions.
- 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.

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Porcupine Defense

Porcupines have a special adaptation that helps to protect them. A porcupine’s body is covered in 30,000 quills. These quills are stiff hollow hairs with sharp hooks at the tips. When another animal threatens, a porcupine’s quills are its defense. If an animal brushes against a porcupine, the quills detach, and the sharp hooks become deeply embedded in the attacker’s skin. The quills are very difficult to remove and cause painful wounds.
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Type:
Bats are small mammals.

Where they live:
Bats live all over the world. They live in trees, caves, barns, attics, and under bridges.

Food:
Most bats eat insects. They catch them while they are flying. Some bats eat fruit.

Adaptations:
Physical—Bats are the only mammals that have wings and can fly. Bats have keen hearing. They bounce sounds off objects around them and use echoes to find insects in the dark.
Behavior—Bats are nocturnal. This means they are active at night and sleep during the day. Bats hibernate in the winter.
Type:
Alligator snapping turtles are reptiles.

Where they live:
They live in rivers.

Adaptations:
Physical—They have a tongue that looks like a worm.
Behavior—The turtles use their tongues to attract prey.
Idea Tree

**Title:** Animal Adaptations

**Topic:** How animals adapt

- **Predators have adapted ways to catch prey.** (pp. 8 and 9)
  - Electric eels shock and stun prey.
  - Cheetah is a great runner: long legs, big lungs and heart to breathe while running.
  - People thought animals didn’t change.
  - Darwin went to Galápagos Islands, saw new animals.
  - Animals that are better at getting food and avoiding predators survive; others die out.
  - Darwin found out animals change over time and adapt to their environments. (pp. 6 and 7)

- **Plant-eaters have adapted to find and get food.** (p. 10)
  - Monkeys: grasping hands and feet to climb fruit trees
  - Birds: sharp beaks to crack nuts, long beaks to reach nectar
  - Bats use hearing to find food (bugs).

- **Plant-eaters have adapted to find and get food.** (p. 10)
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  - Birds: sharp beaks to crack nuts, long beaks to reach nectar

- **Nocturnal animals have adapted senses to hunt at night.** (p. 11)
  - Owls, cats, lizards: large eyes and keen eyesight to see prey
  - Snowshoe hare: fur blends in with environment
  - Walking stick bug blends in with leaves.
  - Chameleons: changes color to match surroundings
  - Fish and penguins: dark on top, light on bottom to blend in

- **Animals can avoid predators by blending in.** (pp. 12 and 13)
  - Alligator snapping turtle: wormlike tongue to catch fish, frogs
  - Monkeys: grasping hands and feet to climb fruit trees
  - Birds: sharp beaks to crack nuts, long beaks to reach nectar
  - Bats use hearing to find food (bugs).

- **Animals have adapted to scare predators away.** (pp. 14–16)
  - Io moth has eye spots like an owl.
  - Frilled lizard and puffer fish: make themselves look bigger
  - Poisonous animals show bright colors: jellyfish and scorpions sting.
  - Walking stick bug blends in with leaves.

- **Animals have adapted to scare predators away.** (pp. 14–16)
  - Stink bug and skunk: foul odor; porcupines, hedgehogs: sharp quills
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  - Walking stick bug blends in with leaves.
adaptations to live in desert or hot climates (pp. 18 and 19)
- Some animals sleep during the heat of day.
- Camels adapted to desert: humps store fat; eyes and nose made to keep sand out.
- Wolves and monkeys make noise to warn of danger.
- Prairie dogs have lookouts to warn of danger.
- Some animals stick together for protection. (p. 17)

adaptations to live in very cold climates (pp. 20 and 21)
- Whales and seals: blubber, layer of fat
- Polar bears: black skin to attract heat
- Penguins: black feathers to attract heat
- Some animals migrate to escape winter. (pp. 25 and 26)
- Some animals hibernate to survive the winter. (pp. 23 and 24)
- Hibernation is like sleep; an animal's energy slows down.
- Animals hibernate in a shelter or den.
- Bears, squirrels, snakes, bats, and frogs hibernate.
- Eat a lot in summer and fall to store fat
- Migrate south to find food, return in spring

Some animals hibernate to survive the winter. (pp. 23 and 24)
- Camels adapted to desert: humps store fat; eyes and nose made to keep sand out.
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Crazy Camouflage and Other Awesome Animal Adaptations, cont.
To survive, animals adapt over time, changing physically or in behavior. (p. 27)

examples of physical changes: camouflage, color, blubber, large beaks

examples of behavior changes: migration, defense, burrowing, hibernation

Biologists and zoologists study animals. (p. 28)

study animals in zoos, labs, or where they live

topic:

learn about characteristics that help them survive
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>
<th>LEVEL 4 / Crazy Camouflage and Other Awesome Animal Adaptations</th>
</tr>
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<tbody>
<tr>
<td><strong>English Language Arts Standards:</strong> <em>Reading: Informational Text</em></td>
</tr>
<tr>
<td><strong>Key Ideas and Details</strong></td>
</tr>
<tr>
<td>RI.4.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.</td>
</tr>
<tr>
<td><strong>English Language Arts Standards:</strong> <em>Language</em></td>
</tr>
<tr>
<td><strong>Vocabulary Acquisition and Use</strong></td>
</tr>
<tr>
<td>L.4.4b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).</td>
</tr>
<tr>
<td><strong>English Language Arts Standards:</strong> <em>Writing</em></td>
</tr>
<tr>
<td><strong>Text Types and Purposes</strong></td>
</tr>
<tr>
<td>W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</td>
</tr>
</tbody>
</table>