Grade 4: Module 2B: Unit 1: Lesson 11
Close Reading: Learning About Poisonous Animals
Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can explain what a text says using specific details from the text. (RI.4.1)
I can make inferences using specific details from text. (RI.4.1)
I can interpret information presented through charts or graphs. I can explain how that information helps me understand the text around it. (RI.4.7)
I can determine the meaning of academic words or phrases in an informational text. (RI.4.4)
I can determine the meaning of content words or phrases in an informational text. (RI.4.4)

Supporting Learning Target

- I can make inferences based on information from pictures and text in a section of Animal Behavior: Animal Defenses, “Poisonous Prey”.
- I can support my inferences with details and examples from pictures and texts in a section of Animal Behaviors: Animal Defenses, “Poisonous Prey”.
- I can find the meanings of unfamiliar words to help me better understand a section of Animal Behaviors: Animal Defenses, “Poisonous Prey”.

Ongoing Assessment

- Listening Closely note-catcher (page 16 of Animal Defenses research journal)
- “Poisonous Prey” note-catcher (pages 17-23 Animal Defenses research journal)
## Agenda

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## Teaching Notes

- Today’s lesson begins a two-lesson close read of the section “Poisonous Prey” in the anchor text *Animal Behavior: Animal Defenses*. Students begin with the routine of using the Listening Closely note-catcher in their Animal Defenses research journals while hearing a read-aloud of the section. Note that they do not listen for or write the gist of this section after hearing it read aloud; students reread the section for gist independently during Work Time A.

- In Lessons 5–7, some students read the section before “Poisonous Prey” (page 55–top of 56) and the section after (“Warning Colors,” pages 58–60). Since students shared details from these parts of the text during Lesson 6 (using the Jigsaw protocol), all students should have some background knowledge coming into this lesson.

- The close reading process is meant to help students deeply understand a section of the text. Students read and reread in order to deconstruct the meaning of the text, and then reconstructing the meaning using evidence from the text. The teacher uses questioning geared toward a focus question to make the text accessible to students.

- The “Poisonous Prey”: Close Reading guide (page 15-20 Animal Research Journal) is meant to be discussion-based; the teacher can choose to invite students to work independently or in pairs or small groups when thinking about different questions, but the teacher should guide the whole class in a discussion of each section of the using the question in the guide, before moving on to the next section. This guide is not meant to be a worksheet that is assigned to students or partnered pairs to complete on their own.

- This close read sequence is designed as two lessons, however depending on the needs of your class, you may choose to split this close reading into three lessons.

- The end goal of Lessons 11 and 12 is for students to be able to answer the focus question posed during Work Time A. Students are given the opportunity to do so in Lesson 12.

- Review: Fist to Five in Checking for Understanding techniques (see Appendix).

- Post: Learning targets.
### Close Reading: Learning About Poisonous Animals

#### Lesson Vocabulary
- index
- predator (56), prey, retch, entrap, oozes, affect, toxic (57), excrete

#### Materials
- *Animal Behavior: Animal Defenses* (book; one per student and one for display; “Poisonous Prey,” pages 56–58)
- Document camera
- Listening Closely note-catcher (page 16 of Animal Defenses research journal; one per student and one to display)
- Listening Closely note-catcher (completed, for teacher reference)
- Animal Defenses research journals (from Lesson 1)
- Equity sticks
- Close Readers Do These Things anchor chart (from Module 1, Unit 1, Lesson 3; or recreated in Lesson 2 of this module)
- “Poisonous Prey” note-catcher (pages 17-23 of Animal Defenses research journal; one per student and one to display)
- “Poisonous Prey” Close Reading Guide (for teacher reference)
## Opening

**A. Engaging the Reader: Read-aloud of “Poisonous Prey” (10 minutes)**

- Remind students that they’ve been learning about millipedes' defense mechanisms. Invite students to take out *Animal Behavior: Animal Defenses*. Remind students that this book is another source they can use for their research. Ask:
  
  * “Where can we find more information about millipedes in this book?”

- Give students a couple minutes to flip through their books, looking for more information.

- Invite students to share pages where they found some more information about millipedes. As students share, ask:
  
  * “How did you find this part of the text that had more information about millipedes?”

- Listen for students to point out using the table of contents or the index. If students do not point out using the index, model by saying something like: “We could use the index, which is a list of topics in the back of a book with page numbers showing the page where that topic appears. It’s in alphabetical order, which makes it easier to find the topic you might be looking for. If we want to find out more about millipedes, we would flip to the index and go to the M section. These pages all have information about millipedes. Let’s flip to page 53, since that’s the first page listed. We’ll skim the page, looking for information about the millipede [model scanning]. This page doesn’t have much information, so I’ll go back to the index to see what’s next. Pages 56–57 have some more information, according to the index. Those will be the pages we’ll focus on.”

- Tell students that they will be listening to a section from *Animal Behavior: Animal Defenses*. Tell students they will then use this text to determine the main idea later in the lesson.

- Using a [document camera](#), display a blank [Listening Closely note-catcher](#) and invite students to open to the next one on page 16 in their *Animal Defenses research journals*. Ask:
  
  “How do we use this graphic organizer to help us understand a text read aloud?”

- Use equity sticks to call on students. Listen for responses like: “We record facts about animals in the left-hand column, how the animal protects itself in the middle column, and explain how that helps the animal survive in the right-hand column. We write a gist statement at the bottom.”

- Remind students that they will listen to a new part of *Animal Behavior: Animal Defenses* read aloud several times. The first time they hear it read aloud, they should simply listen. The second time, they should begin to fill in the table.

- Tell students you will read the section “Poisonous Prey” on pages 56–58 aloud, and remind them that they should just listen to what is being read. Read aloud pages 56–58.

## Meeting Students’ Needs

- Whole class discussions encourage respectful and active listening, as well as social construction of knowledge.

- Hearing a complex text read slowly, fluently, and without interruption or explanation promotes fluency for students; they are hearing a strong reader read the text aloud with accuracy and expression, and are simultaneously looking at and thinking about the words on the printed page. Set clear expectations that students read along silently in their heads as you read the text aloud.
Opening (continued)

- Invite students to turn and talk with a neighbor, sharing one interesting thing they heard during the read-aloud. Use equity sticks to call on two students to share what their partners found interesting.
- Explain to students that they will now hear pages 56–58 read aloud a second time. Tell students they should now record notes in the note-catcher as you read aloud.
- Read aloud “Poisonous Prey,” stopping briefly after each paragraph. If necessary during each short pause, remind students to fill in notes on their note-catchers.
- Invite students to turn and talk with a partner. Ask:
  * “What is one fact you wrote down about millipedes?”
    - Listen for responses like: “Pill millipedes are poisonous.”
  * “What is an example of how millipedes protect themselves?”
    - Listen for responses like: “They ooze sticky droplets when attacked.”
  * “How do those defense mechanisms help millipedes survive?”
    - Listen for responses like: “The drops make the predator sticky which slows it down and lets the millipede escape.”
- Use equity sticks to call on a student to share his or her partner’s response.
- Remind students they will have many more opportunities to read this book, and can read through it on their own during independent reading or in their free time during the school day if they wish.
## Opening (continued)

**B. Reviewing Learning Targets (5 minutes)**

- Use equity sticks to call on students to read the learning targets:
  - I can make inferences based on information from pictures and text in a section of Animal Behavior: Animal Defenses, “Poisonous Prey”.
  - I can support my inferences with details and examples from pictures and texts in a section of Animal Behaviors: Animal Defenses, “Poisonous Prey”.
  - I can find the meanings of unfamiliar words to help me better understand a section of Animal Behaviors: Animal Defenses, “Poisonous Prey”.

- Ask students to Think-Pair-Share on the following question:
  - “What does it mean to make an inference?”

- Listen for responses like: “Making an inference is when a reader thinks about something an author isn’t explicitly saying in the text.”
  - “What are some strategies you have been using to determine the meaning of unfamiliar words?”

- Listen for responses like: “I reread the text and infer.”

### Meeting Students’ Needs

- Discussing and clarifying the language of learning targets helps build academic vocabulary.
A. Close Reading of “Poisonous Prey”: Rereading for the Gist (10 minutes)

- Explain to students that they will be rereading “Poisonous Prey” from Animal Behavior: Animal Defenses several times over the next two lessons. Tell students they will be reading the text closely in order to learn more about animal defense mechanism.

- Display Close Readers Do These Things anchor chart and remind students that they will be doing all of these things to closely read this text:
  - Read small chunks of text slowly and think about the gist.
  - Reread each passage one sentence at a time.
  - Underline things that you understand or know about.
  - Circle or underline words that you do not know.
  - Talk with your partners about all of your good ideas.
  - State the gist or message of the paragraph in the margin.
  - Listen to the questions.
  - Go back to the text in order to find answers to questions.
  - Talk with your partners about the answers you find.

- Invite students to find the “Poisonous Prey” note-catcher on page 15 of their research journal. Tell them that they will be using this note-catcher to help them think and take notes about this section of Animal Behavior: Animal Defenses.

- Use equity sticks to call on a student to read the focus question at the top of the note-catcher, to keep in mind as they work:
  * “How do animals use poison to survive?”

- Point out the bullet points about gist on the Close Readers Do These Things anchor chart. Invite students to reread “Poisonous Prey” for gist, writing their gist statements in the first box of the note-catcher. Give students 5 minutes to do so independently. Circulate and support as needed. If necessary, prompt students by asking: “What is this section mostly about?”

- After 5 minutes, bring students back together. Ask:
## Work Time (continued)

* “What was the gist of this text?”
* Listen for responses like: “This section was about how some animals use poison to protect themselves.”

### Meeting Students’ Needs

- Some students may benefit from having key sections pre-highlighted in their texts. This will help them focus on small sections rather than scanning the whole text for answers.

## B. Close Reading of “Poisonous Prey”: How Do Animals Use Poison to Survive? (30 minutes)

- Remind students that close readers reread the texts they are analyzing paragraph by paragraph, sentence by sentence.
- Explain to students that they will now reread this section closely to think carefully about the focus question:
  * “How do animals use poison to survive?”
- Tell students they will be doing this by rereading paragraphs on their own and with a partner and discussing the text as they read. Using the “Poisonous Prey” Close Reading guide, guide students through rereading the text, inviting them to Think-Pair-Share and discuss the prompts as necessary. Stop students at the tenth row with the prompt: “Reread the fifth paragraph on page 56 (continued on page 57) silently. Then use details from the text to answer the question on the right” Tell students that they will continue rereading the rest of the text in the next lesson.
### Closing and Assessment

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<th>Meeting Students’ Needs</th>
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#### A. Share and Debrief (5 minutes)

- Bring students back together. Invite students to use the Fist to Five checking for understanding technique, showing how confident they are in answering the focus question for this section of the text, showing a fist for completely unsure of how animals use poison, or a five, meaning they can share several ways animals use poison to survive. Be sure to check in with students showing a fist, one, or two fingers during the close read in Lesson 12.

- Using the Back-to-Back, Face-to-Face protocol, ask:
  * “What is one way animals use poison to survive?” Listen for responses like: “Poison can make an animal’s enemy sick.”
  * “How is this process helping you to better understand this text?” Listen for responses like: “By rereading, I can think carefully about the meaning of words I don’t know, like ‘retch.’”

- Explain to students that they will continue rereading “Poisonous Prey” closely in the next lesson.

### Homework

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- “Poisonous Prey” Vocabulary: Reread “Poisonous Prey.” While you read, write down words that you do not know the meaning of. Choose one word you wrote down and try to figure out the definition of it. Write down the definition and how you figured out what the word meant as well.
### Examples of How Millipedes Protect Themselves

<table>
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<tr>
<th>How This Helps Millipedes Survive</th>
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<tbody>
<tr>
<td><strong>• oozes sticky droplets when attacked</strong>&lt;br&gt;• droplets are poison</td>
</tr>
<tr>
<td><strong>• This traps its attackers so it can get away.</strong>&lt;br&gt;<strong>• This protects the millipede from future attacks.</strong></td>
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### Other Interesting Things:

- Pill millipedes are poisonous
- Poison dart frogs are blue.
Note to Teachers: Rows 1-7 are completed in Lesson 11 and Rows 8-17 in Lesson 12.


Focus question: How do animals use poison to survive?

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<th>1. What is the gist of this section of the text?</th>
<th>Ask: What is this text mostly about?</th>
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<td>Listen for: This text is about how animals use poison to survive.</td>
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<tr>
<th>2. Read Paragraph 1 aloud to a partner. Then use the glossary in the back of <em>Animal Behavior: Animal Defenses</em> to answer the questions on the right.</th>
<th>Ask: What does the word “predator” mean?</th>
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<tr>
<td>Listen for: an animal that eats other animals</td>
<td>Ask: What does the word “prey” mean?</td>
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<td>Listen for: “an animal that is eaten by other animals”</td>
<td>Ask: Who is usually poisonous, the predator or the prey?</td>
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<td>Listen for “the prey”</td>
<td>Additional Prompts:</td>
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<td>Ask students how they know this, since it is not directly stated in the text. Students might think it is the predator since that is the animal that eats other animals, thinking it uses poison to kill its prey. Clarify as necessary</td>
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3. Now, reread the first paragraph on page 56 silently. Then use details from the text to answer the questions on the right.

**Ask:** What is a poisonous animal? How is a poisonous animal different from a venomous animal?

**Listen for:** A poisonous animal has poison in its body. It’s different from a venomous animal because venomous animals inject their poison into its victim. A predator comes in contact with the poison of a poisonous animal if it touches or eats the animal.

**Note:** This is a subtle distinction. You may also refer to page 4 of Venom to clarify this for students.

**Ask:** What is the purpose of this paragraph? What sentence in the text makes you think so?

**Listen for:** The purpose of this paragraph is to tell the reader what a poisonous animal is and to introduce the topic of the section. “A poisonous animal has poison in its body.”

**Note:** This question appears several times throughout this note-catcher. In each case, there are other sentences that students may choose that help them understand the purpose of the paragraph. Guide students to choose the first sentence in each paragraph as the sentence that best shows the purpose of the paragraph. This will help them understand that topic sentences, which are usually the first sentence of a paragraph, can help them to determine the main idea of a paragraph. This is debriefed and students should draw this conclusion about expository paragraph structure at the end of this process.
| 4. Take turns reading the second and third paragraphs on page 56 to your partner. Then, working together, use details from the text to answer the questions on the right. | Ask: The text says, “If the bird swallows the monarch, it regrets it.” What do you think “regrets” means?  
Listen for: “When you wish you didn’t do something”  
Ask: What line in the text helps you infer the meaning of this word?  
Listen for: “The next sentence where it says the bird gets sick and throws up and then it remembers this lesson.” |
|---|---|
| 5. Look carefully at the following quote: “Scientists have found that the mere sight of a monarch can cause these ‘educated’ birds to gag and retch, as if they were about to be sick.” (page 56) Together, use this quote to answer the questions on the right. | Ask: What do you think “retch” means? What words in the text make you think so?  
Listen for: “throw up”, or “gag,” or “make the bird feel sick and throw up”  
Ask: Why is the word educated in quotation marks?  
Listen for: “The bird is learns about monarchs and their poison; birds can’t really be educated because they don’t go to school, so it’s in quotation marks because of that”  
Ask: What does an “educated” bird know?  
Listen for: it knows not to eat a monarch  
Ask: How does poison help the monarch to survive?  
Listen for: “It makes its predator sick and the predator learns to avoid it” |
| 6. Reread the focus question. Using evidence from the text, write one way animals use poison to survive in the box on the right. Write the answer to this question with your red pencil. | Possible answer:  
One way animals use poison to survive is to make their enemies sick. I think this because the monarch butterfly makes its enemies throw up and the enemy learns to stay away from it. |
7. Listen as your teacher reads the fourth paragraph on page 56 aloud. Your teacher will help you to choose the right strategy to use in answering the questions on the right.

Ask: What familiar word do you recognize in “entrap”? Listen for: “trap”

Note: Using prefixes and suffixes to determine the meaning of unknown words is discussed in depth at the end of Lesson 12.

Ask: What do you think “entrap” means? Listen for: “trick or capture”

Ask: What do you think “oozes” means? What words in the text make you think so? Listen for: “to flow or leak slowly” or “produce”

Ask: What do you think “affect” means? What words in the text make you think so? How is this different from the meaning of the word “effect”? Use a dictionary to help you figure out the difference. Listen for: “to change” or “paralyzed”

Prompt students to notice: “affect” is a verb, “effect” is a noun

Ask: What is the purpose of this paragraph? What sentence in the text makes you think so? Listen for: “This paragraph gives examples about how animals use poison to trap their enemies. ‘Many poisonous animals produce foul fluids that cling to the predator or entrap it.’”

Note: Guide students to identify the first sentence of the paragraph.
8. Using evidence from the text, sketch what the pill millipede does when attacked by a predator.

Look for: Sketches should show the droplets oozing from the millipede and sticking to its predator.

9. Reread the focusing question. Using evidence from the text, write another way animals use poison to survive in the box on the right. Write the answer to this question with your red pencil.

Possible Answer:

Another way animals use poison to survive is to trap their enemies. I think this because the pill millipede traps its predator with sticky droplets that it oozes from its body.

STOP HERE: Continue with the questions below in Lesson 12.

10. Reread the fifth paragraph on page 56 (continued on page 57) silently. Then use details from the text to answer the question on the right.

Ask: What is the purpose of this paragraph?

Listen for: This paragraph gives examples of how animals use poison to kill their enemies.

Ask: What sentence in the text makes you think so?

Listen for: “Some animals’ poison can kill predators.”

Note: Guide students to identify the first sentence of the paragraph, though other sentences may help them figure out the purpose.
11. Read the second paragraph on page 57 to a partner. Look carefully at the following quote and use it to answer the questions on the right:

“Poison dart frogs (also called poison arrow frogs), which live in Central and South America, excrete a poisonous, foul-tasting fluid from their skin when threatened.” (page 57)

Ask: What is another name for “poison dart frogs”? How do you know?
Listen for: “poison arrow frogs; it’s in parentheses after poison dart frogs on page 57”

What do you think “toxic” means? What words in the text make you think so?
Listen for: “deadly or poisonous”; “the words poison and kill”

Ask: The dash “-” in this quote is called a hyphen. Authors sometimes use a hyphen to join two or more words together to make a new word, called a “compound word.” What two words are joined together with a hyphen in this quote? Why do you think the author did this?
Listen for: “foul-tasting”, “Because it describes how the fluid would taste if an predator tried to eat it.”

CHALLENGE QUESTION: What part of speech is the compound word “foul-tasting” in this sentence?
Listen for or explain: “It’s an adjective”

Note: The actual rule is that you can use a hyphen when you combine two words to become an adjective before a noun. This isn’t a teaching point in fourth grade, but it is something you might mention.

Ask: The foul-tasting fluid helps the frog survive in two ways. What are they?

Listen for: The poison can kill its enemy. It also tastes bad, so the enemy may spit it out and learn to stay away from the frogs.

Note: The first way, that it can kill, is explicit in the text. Students will need to infer that it tastes bad and what happens as a result of that. If necessary prompt students with this information.
### 12. Think back to the focus question. Using evidence from the text, write one way animals use poison to survive in the box on the right.

Write the answer to this question with your red pencil.

**Possible Answer:**

Another way animals use poison to survive is to kill its enemy. I think this because some millipedes ooze a poison gas that can kill more than six mice and a drop of the poison dart frog’s poison can kill thousands of mice.

### 13. Examine the photo and caption on page 57. Use details from the text to answer the questions on the right.

**Ask:** Read the caption and look carefully at the photo. What single word in the caption best describes what the photo is meant to show us?

**Listen for:** skin

**Ask:** What defense mechanism does the poison dart frog use to help it to survive?

**Listen for:** poison

**Ask:** What do you think “excrete” means? What words in the text make you think so?

**Listen for:** ooze, make; “from its skin,” “produce”

**Ask:** What do poison dart frogs excrete? Use exact words from the text.

**Listen for:** “a poisonous, foul-tasting fluid”
14. Reread the first paragraph on page 58 silently. Then use details from the text to answer the questions on the right.

“Of course, if a poisonous animal had a choice, it would rather not be attacked in the first place. It is better for it to stop an attack before it starts.” (page 58)

In the boxes below, draw a picture of each of the ways the text tells us that poisonous animals “stop an attack before it starts.” Be sure to label each picture with words from the text.

- sketch of an animal using warning colors as a defense mechanism
- sketch of an animal using foul tastes as a defense mechanism
- sketch of an animal using bad smells as a defense mechanism
- sketch of an animal using irritating chemicals as a defense mechanism
- sketch of an animal using sounds as a defense mechanism
<table>
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<th>Pulling it all together ...</th>
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<tr>
<td><strong>WORD MEANING</strong></td>
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<tr>
<td>15. Reread this note-catcher, noticing the words in bold print. Turn and talk with a partner about three ways you might figure out the meaning of an unknown word. Then, follow the directions on the right.</td>
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<tr>
<td>Choose three words in bold print on this note-catcher in addition to “predator” and “prey.” Add the definitions of these words to the glossary of your Animal Defenses research journal.</td>
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<tr>
<td>Note: Students should choose from the following words: retch, entrap, oozes, affect, toxic, excrete</td>
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<td><strong>SENTENCE MEANING</strong></td>
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<td>16. Look back at the answers you wrote in red. What do you notice about sentences that tell the purpose of a paragraph? Hint: You may need to look for these sentences in the text to see a pattern.</td>
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<tr>
<td>Ask: What do you notice about sentences that tell the purpose of a paragraph? Hint: You may need to look for these sentences in the text to see a pattern.</td>
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<tr>
<td>Listen for: The sentences are the first sentence of the paragraph they appear in.</td>
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<td>Note: Guide students in drawing the conclusion about expository text structure—that the topic sentence of a paragraph usually tells the main idea and the purpose of the paragraph.</td>
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<tr>
<td><strong>THE BIG IDEA</strong></td>
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<td>17. Use the evidence you recorded on this sheet, as well as additional evidence from the text, to answer the question below in a well-written paragraph.</td>
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<td>Ask: Based on your observations about the paragraphs in this text, what will be important to consider when writing the first sentence of your own paragraph?</td>
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<tr>
<td>Listen for: The first sentence should tell the main idea of my paragraph.</td>
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</table>
Synthesize!

Explain how animals use poison to survive (remember to use key words from the focus question in your response):

Possible Answer: Animals use poison to survive in many ways. They use it to make their enemy sick. The monarch butterfly makes a bird throw up if the bird eats it. Some animals use poison to trap their enemy. The pill millipede oozes sticky droplets that the predator gets stuck in. While the predator tries to clean off the drops, the millipede can escape. Other animals use poison to kill their enemy. Some millipedes release gas that can kill more than six mice. A drop of the poison dart frog’s poison can kill thousands of mice.