EXPEDITIONARY LEARNING

Grade 4: Module 2B: Unit 2: Lesson 4

Reading Informational Texts: Researching Expert Group 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 the text. (RI.4.1)	
Supporting Learning Target	**Ongoing Assessment**
• I can make inferences based on information from pictures and text. • I can support my inferences with details and examples from pictures and texts. • I can find the meanings of unfamiliar words to help me better understand a text.	• Expert Group Animal Defense Mechanisms: KWL chart • Research note-catcher

Agenda	Teaching Notes
1. Opening A. Engaging the Reader: Jigsaw (10 minutes) B. Review Learning Targets (5 minutes) 2. Work Time A. Identifying Research Sources (15 minutes) B. Researching the Expert Group Animal (25 minutes) 3. Closing and Assessment A. KWL: Expert Group Animal (5 minutes) 4. Homework A. Expert group text vocabulary.	• This lesson opens with a Jigsaw activity, in which students learn about the other expert groups' animals. • Similar to Lesson 1, Work Time is broken up into two sections: teacher modeling and guided practice. Students use the Research note-catcher and their Expert Group Animal research journals to identify which sources they will use for their research. Then, they closely read targeted sections of those identified sources to research how their animal's body and behaviors help it to survive. Students do this work in their expert groups, and their findings will help them write the informational page of the performance task. • This lesson arc differs from previous research students have done because they are self-identifying texts (and sections of these texts) to use in their research rather than reading Web-based texts assigned to their group. • The only expert group that will use *Venom* for this part of the research is the group researching the monarch butterfly. Since there is only one copy of this text per class, this expert group can use the text by having one student read it aloud while the rest of the group takes notes. • Recall that the gazelle was assigned to students who generally need extra support with reading and research tasks. The gazelle's defense mechanisms should be identified for these students to provide this extra scaffold. You may choose to assign the defense mechanisms for other expert groups, as well, based on student need. • The research completed in Work Time B may take more than 25 minutes; you may wish to have students do the Jigsaw activity at a different time in the day to allow for more time for research during the lesson itself. Students will have an opportunity to continue researching in Lesson 5. • Review: Jigsaw protocol (see Appendix). • Post: Performance Task and Close Readers Do These Things anchor charts; learning targets.

Lesson Vocabulary	Materials
	• Equity sticks • Performance Task anchor chart (begun in Unit 1, Lesson 1) • Expert Group Animal research journals (from Lesson 2; one per student and one to display) • Close Readers Do These Things anchor chart (begun in Module 1, Unit 1, Lesson 3) • Research note-catcher (pages 9-11 of Expert Group Animal research journal) • Research note-catcher (answers; for teacher reference; one per expert group animal) • *Venom* (book; see Teaching Notes) • *Animal Behavior: Animal Defenses* (book; from Unit 1, Lesson 5; one per student and one to display) • "Award-Winning Survival Skills" (from Unit 1, Lesson 2; one per student and one to display) • Millipede Research note-catcher (one for modeling) • Millipede Research note-catcher (answers, for teacher reference) • Expert Group Animal Defense Mechanisms: KWL chart (page 1 of Expert Group Animal research journal)

Opening	Meeting Students' Needs
A. Engaging the Reader: Jigsaw (10 minutes) • Explain that students will use the Jigsaw protocol to "meet" the other animals being studied by the other expert groups. Clarify the protocol as necessary. • Invite students to gather into Jigsaw groups of four, made up of one person from each expert group. • Ask students to describe their expert group animal to their Jigsaw group, giving each "expert" a chance to share. Remind them to use details from their research so far to support their answers. • Refocus students whole group. Use **equity sticks** to call on them to describe one of their Jigsaw group mates' animal.	
B. Review Learning Targets (5 minutes) • Remind students of the module's guiding question: * "How do animals' bodies and behaviors help them survive?" • Invite them to give a thumbs-up if they can answer this question with an example of how their expert group animal uses its body or behaviors to survive, and a thumbs-down if they cannot. • Direct students' attention to the learning targets. Read them aloud, pausing after each to ask for a thumbs-up if students are clear on what they will be expected to do, a thumbs-sideways if they understand part but not all of what to do, and a thumbs-down if they are very unsure about what they should do. * "I can make inferences based on information from pictures and text." * "I can support my inferences with details and examples from pictures and texts." * "I can find meanings of unfamiliar words to help me better understand a text." • Explain that students will begin reading a new text closely to learn about their expert group animal's defense mechanisms.	• Discussing and clarifying the language of learning targets helps build academic vocabulary.

Work Time	Meeting Students' Needs

A. Identifying Research Sources (15 minutes)
• Display the **Performance Task anchor chart** and remind students that there are two parts to the performance task. They will complete the first part, an informational page about their expert group animal, in this unit. The second part, a narrative featuring their expert group animal, will be completed in Unit 3.
• Remind students that they need to research to learn more about their expert group animal before they can begin writing about the animal for the performance task.
• Ask:
  * "What does it mean to *research*?"
• Listen for responses such as: "It means to ask a question and then look for the answer in different sources like books, articles, or videos."
• Ask:
  * "What is the question we are trying to answer in our research?"
• Listen for students to share the focus question for the informational page: "How does my expert group animal use its body and behaviors to help it survive?"
• Use equity sticks to call on a student to read the second bullet point on the Performance Task anchor chart aloud:
  * "An informational page with a physical description of your animal, its habitat, its defense mechanisms, and predators"
• Ask students to turn and talk with a partner. Encourage them to talk with someone who is not in their expert group. Ask:
  * "What information have you learned about your expert group animal so far that will help you to do this? Share some facts with your partner."
• Listen for students to share details about what their animal looks like, where it lives, and its predators.
• Invite them to take their **Expert Group Animal research journals** and join their expert groups to discuss:
  * "Based on the anchor chart, what kind of information do you still need to research?"
• Listen for them to notice that they need to learn more about their animal's defense mechanisms.
• Explain that, as in Lessons 2 and 3, students will reread new texts several times over the next two lessons to learn about their expert group animal's defense mechanisms.	

Work Time (continued)	Meeting Students' Needs

• Point out the **Close Readers Do These Things anchor chart** and remind students that they will be doing all of these things to read closely in the next two lessons.
• Ask expert groups to discuss:
  * "What is one thing you are going to practice today when you closely read your group's text?"
• Listen for responses like: "I'm going to be sure I underline things that I understand in the text."
• Invite students to turn to the **Research note-catcher** on pages 9-11 in their Expert Group Animal research journal. Explain that they will use this note-catcher to help them think and take notes about their expert group's text.
• Use equity sticks to call on a student to read the focus question at the top of the Research note-catcher:
  * "How does your expert group animal use its body or behaviors to help it survive?"
• Tell students that they should keep this question in mind while they work. Explain that they are going to take their research skills to the next level; before they start researching, they will practice using text features to efficiently find information about their expert group animals. Tell students they will use the Web pages and anchor texts from this module for their research.
• Ask:
  * "What texts can you use for further research of your expert group animal?"
• Listen for responses such as: "***Venom***, ***Animal Behavior: Animal Defenses***, or **'Award-Winning Survival Skills.'**"
• Ask:
  * "What text features are in these resources that will help us to locate information about our expert group animals?"
• Listen for students to identify text features such as the table of contents, the index, headings, or photographs. If necessary, prompt them by reminding them how you found information about the millipede in Unit 1. Model with the **Millipede Research note-catcher (For Modeling)** as necessary.
• Review the protocol for working in a small group by asking:
  * "What does it look like or sound like when working in a small group with your peers?"
• Listen for responses like: "Wait my turn to speak, so I am heard," "Don't shout/speak too loudly," "Make sure everyone gets a turn to speak," "No one person does most/all of the speaking," and "Use information from the text to support my ideas."	

Work Time (continued)	Meeting Students' Needs
• Turn students' attention back to the Research note-catcher. Invite expert groups to complete the task in the first row: * "Turn to the index of *Animal Behavior: Animal Defenses*. Write the page numbers that have information about your expert group animal." • If necessary, model briefly using the millipede as an example using the **Millipede Research note-catcher (answers, for teacher reference)**. Answer any clarifying questions. • Repeat with the second row of the Research note-catcher, answering any clarifying questions. Be sure to note for students that their expert group animal may not be mentioned in *Venom* or "Award-Winning Survival Skills," and they should write "no" if that is the case for their animal.	

Work Time (continued)	Meeting Students' Needs

B. Researching the Expert Group Animal (25 minutes)
• Explain that students will now work with their expert groups to research the answer to the focus question ("How does my expert group animal use its body and behaviors to help it survive?") by using the resources they identified in Work Time A.
• Guide students in using the third row of the Research note-catcher with the prompt:
  * "Skim the pages you noted above. List the defense mechanisms your expert group animal uses."
• Model doing this with the millipede, turning to page 53 of *Animal Behavior: Animal Defenses*. As you model, be sure to:
  – Use the page numbers recorded in Work Time A.
  – Skim the text by starting with looking at the pictures and captions and looking for the word "millipede."
  – Record the defense mechanism in the appropriate box on the note-catcher.
• Invite students to complete the third row of the Research note-catcher with their expert groups.
• After about 10 minutes, bring students back together. Say something like:
  * "Now that you have a list of defense mechanisms for your expert group animal, you'll be able to return to the texts and read the pages you noted in Row 1 more closely to learn exactly how your expert group animal uses these defense mechanisms."
• Direct students' attention to the Performance Task anchor chart and point out that they will be writing about two defense mechanisms. Explain that their expert group animal may use many defense mechanisms to protect itself, but they will only deeply research two defenses.
• Invite students to turn to the second and third pages of the Research note-catcher (page 10 and 11 in their research journals). Explain that they will use these pages to collect notes on the two defense mechanisms they will research more closely.
• They may use one or both of these pages depending on how many texts they identified on the first page of their Research note-catchers.
• Ask students to read over the second page of the note-catcher. Answer any clarifying questions.	

Work Time (continued)	Meeting Students' Needs
• Model how to complete table for notes on the second page of the Research note-catcher with the Millipede Research note-catcher, turning to page 53 of *Animal Behavior: Animal Defenses*. As you model, be sure to: – Notice the heading in the upper-right corner of the page of *Animal Behavior: Animal Defenses* and think aloud about what it means, why it is there, and how it helps you as a reader. – Use the chapter title and headings to frame what you will be rereading. – Reread the page, looking for information about millipede defense mechanisms and writing details on the Millipede Research note-catcher (see the supporting materials for possible notes). – Think aloud about how the defense mechanism helps the millipede survive. – Note the page number in the appropriate column on the note-catcher. • Using the Research note-catcher, guide students through reading the parts of their texts that they identified in Work Time A, inviting them to Think-Pair-Share and discuss with their expert groups. Circulate and support groups as needed. • After about 7 minutes, bring students back together whole group. Explain that they will continue researching in the next lesson.	• 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. • Note: Students researching the Springbok gazelle will only gather information from one text in their Research note-catchers, Animal Behaviors: Animal Defenses.

Closing and Assessment	Meeting Students' Needs
A. KWL: Expert Group Animal (5 minutes) • Invite students to turn to the **Expert Group Animal Defense Mechanisms: KWL chart** on page 1 of their Expert Group Animal research journals. Remind them that researchers always reflect on and record what they've learned. • Invite students to Think-Pair-Share. Ask: * "Were any of the questions from your KWL chart answered in the text that you read today?" * "Did you confirm any of the information you thought you knew?" (Instruct students to place a check mark next to these facts on their KWL charts.) * "What new information did you learn from your section of the text?" • Tell students to record the answers to any questions they wrote in the W column, in the I Learned section, in the Information column. Include the name of the book and page number in the Source column. • Tell students to write one new piece of information they learned from the book in the I Learned section, as well.	
Homework	**Meeting Students' Needs**
• Reread the sections of the texts that your expert group used in this lesson. 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 its definition. Write down the definition and how you figured out what the word meant.	

EXPEDITIONARY LEARNING

Grade 4: Module 2B: Unit 2: Lesson 4
Supporting Materials

Millipede Research Note-Catcher:
(For Modeling)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

1. Turn to the index of *Venom*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the page number(s) that have information about your expert group animal:	1. Use the text features to skim *Award-Winning Survival Skills*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the name of the section that has information about your expert group animal:

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

Millipede Research Note-Catcher:
(For Modeling)

Source: _____

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive

Millipede Research Note-Catcher:
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

53
56–57
64–65

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the page number(s) that have information about your expert group animal:

yes, page 15

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the name of the section that has information about your expert group animal:

no

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

rolling into a ball
hard exoskeleton
emits poison
runs away

Millipede Research Note-Catcher:
(Answers, for Teacher Reference, continued)

Source*: Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
53	Pill millipedes roll up when in danger.	Their hard exoskeleton protects millipedes' bodies from predators. They look like little pebbles so the predator ignores them.
56	Pill millipedes ooze sticky droplets when attacked.	The droplets stick to predators. While the predator tries to clean off the fluid, it gets stickier and the millipede escapes.
56	Some millipedes ooze droplets that release poison.	The poison can paralyze or kill the millipede's predators.
64–65	Millipedes give off strong odors if they are disturbed. The smell comes from fluids that ooze from pores in the millipede's sides.	The scent sends the predators running away.

Millipede Research Note-Catcher:
(Answers, for Teacher Reference)

Source: *Venom*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
15	have a tough exoskeleton	protects its body from predators
15	Rolling into a tight, hard ball is their main defense.	Their hard exoskeleton protects their bodies from predators. They look like little pebbles, so the predator ignores them.
15	The yellow-spotted millipede emits acid to repel predators.	The acid keeps the predators away and can hurt the predators.

Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-catcher
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

   49–51
   53

1. Turn to the index of *Venom*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the page numbers that have information about your expert group animal: **no**	1. Use the text features to skim *Award-Winning Survival Skills*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the name of the section that has information about your expert group animal: **yes, "Best Special Effect: The three-banded armadillo"**

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

bony armor
roll into a ball

Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behaviors: Animal Defenses*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
49	Scientists call the armor carapace.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	Carapace is made up of bony plates arranged in bands around the armadillo's body.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	The plates are covered by tough skin.	The armor is hard and protects the armadillo's body if a predator attacks it.
50	Each band is separated from the others by a band of skin.	This lets the armadillo flex its body.
50	The three-banded armadillo is the only armadillo that can roll itself up so tightly that it looks like a scaly croquet ball.	–can roll away –natural hiding spot –"can peek out and see if its attacker is still there. If the attacker comes close to investigate, the armadillo quickly slams its carapace shut again—an action that sometimes nips the attacker's nose."

Expert Group Animal Research Journal:
Three-Banded Armadillo
Research Note-catcher
(Answers, for Teacher Reference)

Source: "Award-Winning Survival Skills"

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
9	Three hinged bands give them the flexibility to roll themselves up. They are the only armadillos that can curl themselves into completely enclosed balls.	When they're rolled into a ball, the shell protects their bodies. It's also difficult for the predator to crack open the armadillo.
10	The shoulder and haunch plates aren't attached on the sides to the armadillos' skin, so there's room inside to fit a head, legs, and tail.	Rolling into a ball lets the armadillo's armor protect its body and also its head, legs, and tail, which aren't covered by the armor otherwise.
10	Shells are good insulation.	They keep the armadillos warm in the winter.

Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-catcher
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

7–9
64
114

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the page numbers that have information about your expert group animal:

no

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the name of the section that has information about your expert group animal:

no

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

horn
keen senses
speed
avoiding being seen
stotting or stamping
running away
forming mixed groups when traveling

Expert Group Animal Research Journal:
Springbok Gazelle
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
7	**"The gazelles bounce like pogo sticks. They spring high in the air with their backs arched and legs stiff. They land on all fours, and then leap again."**	**This lets the predator know: "We have seen you, so do not bother to chase us—we are strong and healthy and can outrun you."**
7	**They run up to 40 miles an hour.**	**They can run this fast longer than predators, which get tired out and give up chasing the gazelle.**
8	**Fawns have tawny coats.**	**They blend in with the grass so the predator doesn't see them.**
8	**Fawns can lie still for a long time.**	**The grass doesn't move around them, so the predator doesn't notice them.**
9	**"Gazelle fawns use the most basic form of self-defense: avoid being noticed. Like the fawns, many animals evade detection by hiding, freezing, or blending in with their habitat. This is called crypsis."**	**The fawns blend in with their habitat so the predator doesn't notice them.**
65	**The gazelle stamps its foot or stots.**	**The predator loses its chance to launch a surprise attack.** **This is also a form of pursuit deterrence—telling a predator that it is strong and healthy, so it would be a waste of time to chase it.**

Expert Group Animal Research Journal:
Mimic Octopus
Research Note-catcher
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

mimic octopus: 97
octopuses:
19
24
28–29
33–34
37
87
97

1. Turn to the index of *Venom*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the page numbers that have information about your expert group animal:

no

1. Use the text features to skim *Award-Winning Survival Skills*.
2. Can this resource help you answer the focus question? Write "yes" or "no."
3. If "yes," write the name of the section that has information about your expert group animal:

yes, "Best Impersonator: The mimic octopus"

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

changes color to blend in
changes texture of skin
mimics other animals
jets away (swimming away quickly)
changes color to scare away the predator
loses arms
squirts ink
uses venom

Expert Group Animal Research Journal:
Mimic Octopus
Research Note-catcher
(Answers, for Teacher Reference)

Expert Group Animal: Mimic Octopus

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
19	can change color in less than one second	can change color to match the background
19	can change texture of skin	texture resembles sand or stones, so it blends in
24	escapes predators by jetting: filling body with water and pushing it out through a tube-like body part called a siphon	can get away quickly and in any direction; squirts ink to hide or confuse its enemy
33–34	releases arms	arm distracts the predator and lets the octopus escape
87	uses venom if stepped on or attacked	hurts enemy with the venom
97	mimics other animals –easily changes color and shape of body –imitates dangerous sea creatures –pulls arms together and moves like the sole –spreads out arms and lets them dangle to look like a lionfish –changes stripes to black and yellow and tucks body to look like a sea snake	imitates dangerous sea creatures

Expert Group Animal Research Journal:
Mimic Octopus
Research Note-catcher
(Answers, for Teacher Reference)

Source: "Award-Winning Survival Skills"

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
10	twists its body and changes its stripes to look like the poisonous lionfish	The animals stay away from the mimic octopus when it looks like that because they think it's a lionfish.
10	can bulge its eye sockets and tentacles to look like a blenny species	Blenny species are very common, so the predators aren't interested in them.
11	is the only animal that can mimic more than one animal –has a flexible body –has skin cells called chromatophores that have different colored pigments, so it can change the color of its skin	There's nowhere for the octopus to hide because its habitat is the seafloor, so this helps it hide in plain sight.

Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-catcher
(Answers, for Teacher Reference)

Focus question: How does your expert group animal use its body and behaviors to help it survive?

1. Turn to the index of *Animal Behavior: Animal Defenses*.
2. Write the page numbers that have information about your expert group animal:

56
60
68
105–106

1. Turn to the index of *Venom*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the page numbers that have information about your expert group animal: **yes, 21–22**	1. Use the text features to skim *Award-Winning Survival Skills*. 2. Can this resource help you answer the focus question? Write "yes" or "no." 3. If "yes," write the name of the section that has information about your expert group animal: **no**

Skim the pages you noted above. List the defense mechanisms your expert group animal uses:

warning colors
poison
mimicry

Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Animal Behavior: Animal Defenses*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
56	The poison tastes bad.	The predator will drop the butterfly once it tastes the poison because it tastes bad, and the butterfly then escapes.
56	The poison doesn't kill the monarch's enemy, but it makes the enemy sick.	The predator remembers that it made it sick and avoids catching monarchs again.
60	The white, black, and yellow caterpillar of the monarch butterfly is poisonous.	The bright colors warn predators that the monarch is poisonous, so they stay away.
68	Monarch butterflies get their poison from eating milkweed plants.	Monarchs stock up on the poison when they're caterpillars, and the poison stays in them after they turn into butterflies. The poison doesn't harm the caterpillars, but it is harmful to many other animals, including the monarchs' predators.
105	The monarch is orange, black, and white.	The bright colors warn predators that the monarch is poisonous, so they stay away.

Expert Group Animal Research Journal:
Monarch Butterfly
Research Note-catcher
(Answers, for Teacher Reference)

Source: *Venom*

Page	Details about the Defense Mechanism • How does the animal use its body to survive? • How does the animal use its behavior to survive?	How This Helps the Animal Survive
20	"These colors and patterns are aposematic—they warn enemies that these critters are venomous."	The bright colors warn predators that the monarch is poisonous, so they stay away.
21	"Birds and other beings that taste this butterfly learn from its Halloween colors that they don't want a second bite."	The predators learn to stay away from the butterflies because of their colors.
21	"The poison is generally not strong enough to kill predators. It makes more sense for the survival of a species to sicken, not slaughter enemies so they'll learn to avoid this prey in the future."	Predators can learn to avoid a certain type of animal because they know it will make them sick.