



EXPEDITIONARY
LEARNING

Grade 4: Module 2B: Unit 1: Lesson 10

Determining Main Idea and Summarizing: Reading Closely about Millipedes



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

- I can paraphrase portions of a text that is read aloud to me. (SL.4.2)
- I can determine the main idea using specific details from the text. (RI.4.2)
- I can summarize informational text. (RI.4.2)

Supporting Learning Targets

- I can determine the main idea of a section of *Venom*.
- I can summarize a section of *Venom* using the main idea and supporting details found in the text.

Ongoing Assessment

- Listening Closely note-catcher (page 14 of Animal Defenses Research Journal)
- Determining the Main Idea note-catcher (page 15 of Animal Defenses Research Journal)



Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Reviewing Learning Targets (5 minutes)Engaging the Reader: Read-aloud of <i>Venom</i> (10 minutes)Work Time<ol style="list-style-type: none">Reading an Informational Text: Determining the Main Idea and Identifying Supporting Details (20 minutes)Guided Practice: Writing a Summary (15 minutes)Closing and Assessment<ol style="list-style-type: none">Exit Ticket: KWL: Millipede Defense Mechanisms (10 minutes)Homework<ol style="list-style-type: none">Continue your independent reading.	<ul style="list-style-type: none">This lesson marks a transition in Unit 1 from a general overview of animal defense mechanisms to a deeper study of millipede defense mechanisms. This study of the millipede is designed to be a model of what students will later do when researching in their animal expert groups.The opening of this lesson is slightly different from prior lessons. Students begin by reviewing the learning targets instead of with an “engaging the reader” activity. This brings awareness to students about the shift in their focus of study from general defense mechanisms to those of the millipede.The Determining the Main Idea note-catcher supplied in the supporting materials of this lesson has an intentional strike-through of the first bullet point. You may wish to use this detail to model choosing details that are from the text but don’t directly support the main idea.This lesson builds on previous lessons focused on determining the main idea by teaching students to write a summary of the text. In this lesson, the summary is written with students. Students practice summarizing again in Lesson 12, and are assessed on this skill in the End of Unit 1 Assessment in Lesson 14. They continue to practice summarizing in Unit 2.



Lesson Vocabulary	Materials
summarize, index, source; exoskeleton , toxin , ooze (15)	<ul style="list-style-type: none">• Equity sticks• Document camera• <i>Venom</i> (book for teacher read-aloud, page 15)• Listening Closely note-catcher (page 14 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; one per student)• Copy of Page 15 of <i>Venom</i>, “They Have Legs and They Know How to Use Them” (one per student)• Determining the Main Idea note-catcher (page 15 of Animal Defenses research journal; one per student and one to display)• Determining the Main Idea note-catcher (completed, for teacher reference)• Summarizing Informational Text anchor chart (new; co-created with students during Work Time Part B)• Millipede Defense Mechanisms: KWL chart (page 13 Animal Research Journal; from Lesson 9; one per student))



Opening	Meeting Students' Needs
<p>A. Reviewing Learning Targets (5 minutes)</p> <ul style="list-style-type: none">Remind students that they have completed the first go-through of the Animal Defenses research journal, researching and collecting information about general animal defense mechanisms. They now will continue learning about animal defense mechanisms and research the millipede. Explain that the process will be the same—they will listen to texts about the millipede, read and reread for main idea and vocabulary. Tell students this work is leading up to their own research of different animals in expert groups to prepare for the final performance task.Use equity sticks to call on students to read the learning targets:<ul style="list-style-type: none">* “I can determine the main idea of a section of <i>Venom</i>.”* “I can summarize a section of <i>Venom</i> using the main idea and supporting details found in the text.”Remind students that the first and third targets should be familiar to them. Focus on the second target by circling the word <i>summarize</i> and asking:<ul style="list-style-type: none">* “What does it mean to summarize?”Listen for responses like: “It’s when you tell the big ideas of a text.” Clarify as needed. Explain to students that they will be using their understanding of how to determine the main idea and identify supporting details to summarize a text about millipedes.	<ul style="list-style-type: none">Discussing and clarifying the language of learning targets helps build academic vocabulary.



Opening (continued)	Meeting Students' Needs
<p>B. Engaging the Reader: Read-aloud of <i>Venom</i> (10 minutes)</p> <ul style="list-style-type: none">Using a document camera, display the cover of <i>Venom</i> so all students can see. Open to pages 74 and 75 and ask:<ul style="list-style-type: none">* “What did we learn about animal defense mechanisms when we last read aloud from <i>Venom</i>?”Listen for responses like: “Bees use stingers to protect themselves.” Validate responses and explain to students that they will be listening to another section of <i>Venom</i> today. Tell students they will then use this text to determine the main idea and summarize later in the lesson.Inform students that they will start their study of the millipede and its defense mechanisms. Model using the index in <i>Venom</i> to find information about the millipede. Point out that the <i>index</i> is in the back of the book, is organized alphabetically, and that the numbers indicate the page number with information about the topic it is next to. Also point out the distinction between “millipede” and “yellow spotted millipede”—note for students that in this case, there is a specific kind of millipede that is mentioned in this book in addition to general information about millipedes. This is important to note for students because when they study their expert group animals, some groups will be studying specific kinds of butterflies, octopuses, or armadillos, so they will need to recognize the distinction between the general animal group and the specific species in the index.Display the blank Listening Closely note-catcher and invite students to open to the next one on page 14 in their Animal Defenses research journals. Ask:<ul style="list-style-type: none">* “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 the animal protects itself in the left column and explain how that helps the animal survive in the right column. We write a gist statement at the bottom.”Remind students that they will listen to a new part of <i>Venom</i> read aloud several times. Remind them that the first time they hear it read aloud, they should simply listen to what is being read. The second time, they should begin to fill in the table.Read aloud page 15 as students read along.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.Tell students that they will now hear page 15 read aloud a second time and should now record notes in the note-catcher as you read aloud.	



Opening (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Read aloud page 15 in <i>Venom</i> again, 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:<ul style="list-style-type: none">* “What is an example of how millipedes protect themselves?” Listen for responses like: “Millipedes roll into tight balls.”* “How do those defense mechanisms help millipedes survive?” Listen for responses like: “Their exoskeleton makes it hard to hurt the millipede’s body when it’s curled into a ball.”* “What was the gist of this text?” Listen for responses like: “The main message of this text was how centipedes and millipedes protect themselves. Some are harmless and some are poisonous.”• Point to the question below the table on the graphic organizer—“What is the gist of this section of <i>Venom</i>?” Invite students to jot down the gist of this part of the text on these lines. If necessary, prompt students by asking: “What is your initial sense of what this part of the text was mostly about?”• 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.	



Work Time	Meeting Students' Needs
<p>A. Reading an Informational Text: Determining the Main Idea and Identifying Supporting Details (20 minutes)</p> <ul style="list-style-type: none"> • Distribute a copy of page 15 of <i>Venom</i>, “They Have Legs and They Know How to Use Them” to each student. • Invite students to turn to page 15 of their research journals to the Determining the Main Idea note-catcher. Explain that they will now have a chance to work closely with the text they just listened to, to determine the main idea and find details that support the main idea of that page. • Point out the “Source” box in the upper right-hand corner. Explain that whenever they are researching, they should record the source, or where the information is coming from, in their notes. Ask: <ul style="list-style-type: none"> * “What is the source we are using in this lesson? Where is our information coming from?” • Listen for students to respond with: “Venom.” Prompt them to include the page number and author, and invite them to write it in the “Source” box on the note-catcher. • Review determining the main idea by asking: <ul style="list-style-type: none"> * “How do we determine the main idea of a section of text?” • Listen for students describing the process introduced in Lesson 3, saying things like: “We read the text paragraph by paragraph, and after each paragraph ask ourselves, ‘What is this text about?’ We revise our thinking about the main idea as we read.” • Review identifying supporting details by asking: <ul style="list-style-type: none"> * “How do we identify details that support the main idea of a section of the text?” • Listen for students describing the process discussed in Lesson 4, saying something like: “We reread the text paragraph by paragraph, thinking about the main idea and looking for facts or details that the author used to explain that idea.” • Invite students to Think-Pair-Share and reread page 15 of <i>Venom</i> independently to determine the main idea of that page. Tell them to write the main idea in the appropriate box on their note-catcher. • Once students have shared out whole group, invite students to Think-Pair-Share and reread page 15 of <i>Venom</i> independently to identify details that support the main idea. Tell them to write at least three supporting details in the appropriate box on their note-catcher. 	<ul style="list-style-type: none"> • The teacher may offer selected shorter passages to specific groups based on the readiness and needs of the group. This provides an opportunity for students to read a complex text within the fourth-grade level span, but differentiates the length of the text, not the complexity. • Graphic organizers and recording forms engage students more actively and provide the necessary scaffolding that is especially critical for learners with lower levels of language proficiency and/or learning. For students needing additional support, provide a partially filled-in graphic organizer. • Provide ELLs with a sentence starter or frame to aid in language production. For example: <i>One idea that is repeated again and again is ...</i> or <i>A detail that supports the main idea of our section is ...</i> • 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.



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">If necessary, model finding a detail that does not support the main idea by saying something like: "Here's a detail about millipedes from <i>Venom</i>: (point to this sentence in the third paragraph on page 15 and write it on the note-catcher) 'Millipedes, relatives of the centipedes, have 20 to 100 body segments, most with two pairs of legs each.' That detail is about millipedes. Does it support the main idea of this page, though? The main idea is that centipedes and millipedes have many defense mechanisms. This detail is about what the millipede looks like, and not its defense mechanisms. So, I'm going to cross this out because, though it's a detail, it's not a detail that supports the main idea."	
<p>B. Guided Practice: Writing a Summary (15 minutes)</p> <ul style="list-style-type: none">Explain to students that they will use their notes on the main idea and supporting details to write a short summary of page 15 of <i>Venom</i>.Invite students to Think-Pair-Share to discuss the following:<ul style="list-style-type: none">* "What is a summary?"* "How might a summary be different from identifying the main idea or writing a gist statement?"Listen for responses like: "A summary tells the main points of a text," "A summary is a longer than saying the main idea or a gist statement," or "A summary includes the main idea and adds on a little bit more to it."Ask students to quickly turn and talk about the summary writing they have already practiced this year. (Listen for them to remember the paragraphs they wrote from their research notes during Module 1 about the Iroquois.) Remind them as needed.On chart paper, begin a new Summarizing Informational Text anchor chart. Write the word <i>summary</i> on the chart and a simple definition such as "when you tell the main points of a text." Tell students that writing a summary will help them to better understand the text they are reading.Invite students to look at the second page of their Determining the Main Idea note-catchers. Point out Reading and Writing Like a Researcher section. Have students read the prompt. Tell them that a good summary of text usually includes the main idea of the text and details that support the main idea. Add the following to the anchor chart in bullet points:<ul style="list-style-type: none">– What big idea is explained in this text?– What facts or examples in this text help us understand the big idea?	



Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Invite students to think about when they have determined the big idea of the text they read today, and when they found facts or examples. Listen for students to notice that they did this in Work Time A.• Tell students that they can use the notes they took in Work Time A to write a summary paragraph. Model how to write this information in paragraph form and display for students. (A possible summary for this text might be: "Centipedes and millipedes have many defense mechanisms. For example, the 12-inch-long rainforest centipede has claws called prehensors, which can deliver painful stings. The millipede has a tough exoskeleton and curls into a hard, protective ball when threatened. Some, like the yellow-spotted millipede, are poisonous and emit a toxin to repel predators. As humans we might find these features 'creepy,' but they keep centipedes and millipedes safe!")• Key points to attend to during the modeling:<ul style="list-style-type: none">– Remind students of the structure of a good paragraph (topic sentence, details, and concluding sentence).– Tell students that they will need to include information from each column of their note-catcher to make it a good summary.– Model checking off notes on the note-catcher as you write the information in your sentences.• On the Summarizing Informational Text anchor chart, record the following in your own or students' words:<ul style="list-style-type: none">– Good summary paragraphs have a topic sentence, details, and concluding sentence.– They explain the big idea and share facts and examples that help us understand the big idea.• Tell students that they will have a chance to practice summarizing again later in the unit, with a different text.	



Closing and Assessment	Meeting Students' Needs
<p>A. Exit Ticket: KWL: Millipede Defense Mechanisms (10 minutes)</p> <ul style="list-style-type: none">For an exit ticket, ask students to write the answers to any questions they had in the W column in the “I Learned” column, in the “Information” section. Include the name and page number of the text in the “Source” column. Add any new questions they have to the W column and write one new piece of information they learned from the text read in today’s lesson in the “I Learned” column.Collect students Animal Defenses Research Journals and look at students’ entries on page 13 as an exit ticket and formative assessment.	<ul style="list-style-type: none">Collect Animal Defenses research journals for formative assessment.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">Continue your independent reading.	



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Supporting Materials



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Animal Defenses Research Journal:
 Millipede Defense Mechanisms
 Listening Closely Note-catcher
 (Completed for Teacher Reference)

Source: *Venom* page 15

Directions: Listen as *Venom* is read aloud. Use the table below to record your notes.

Examples of How Millipedes Protect Themselves	How This Helps Millipedes Survive
<i>Venom</i> page 15	
<ul style="list-style-type: none"> • Have a tough exoskeleton • Roll into a tight, hard ball • Some are poisonous • Release an acid or liquid hydrogen cyanide to repel predators • The poisons don't hurt people 	<ul style="list-style-type: none"> • Exoskeleton makes it hard for predators to hurt the millipede's body • Poison makes predator sick
Other Facts about Centipedes and Millipedes <ul style="list-style-type: none"> • Centipedes are not insects • Centipedes and millipedes have many body segments and many legs • Some millipede predators are ants and toads • Black lemurs rub millipedes on themselves to use the poison to repel pests 	

Explain in your own words what this section of *Venom* was about:

The main message of this text was how centipedes and millipedes protect themselves. Some are harmless and some are poisonous.



Animal Defenses Research Journal:
Millipede Defense Mechanisms
Determining the Main Idea
(Completed, for Teacher Reference)

Source: _____

Reread the text and identify the main idea for each section of the text.

Main Idea:	Supporting Details: <i>Explicit information from text</i>
Centipedes and millipedes have many defense mechanisms.	<ul style="list-style-type: none">• The rainforest centipede has claws called prehensors that can deliver painful stings• “Millipedes have twenty to one hundred body segments, most with two pairs of legs each”• “They have a tough exoskeleton”• “Their main defense is to roll into a tight, hard ball.”• Yellow-spotted millipedes “emit acid or liquid hydrogen cyanide...to repel predators, such as ants or toads”

Reading and Writing Like a Researcher:

Summarize page 15 of *Venom*. Use details from the text to support your explanation.

Centipedes and millipedes have many defense mechanisms. For example, the twelve-inch-long rainforest centipede has claws called prehensors, which can deliver painful stings. The millipede has a tough exoskeleton and curls into a hard, protective ball when threatened. Some, like the yellow-spotted millipede, are poisonous and emit a toxin to repel predators. As humans we might find these features “creepy,” but they keep centipedes and millipedes safe!



Summarizing Informational Text Anchor Chart

Teacher Directions: Write the following underneath on chart paper to create this anchor chart during Work Time Part B.

Summarizing Informational Text

- What big idea is explained in this text?
- What facts or examples in this text help us understand the big idea?

Good summary paragraphs have a topic sentence, details, and concluding sentence.

They explain the big idea and share facts and examples that help us understand the big idea.