



EXPEDITIONARY  
LEARNING

# **Grade 5: Module 2A: Unit 2: Lesson 10**

## **Reading for Details: Taking an Inventory in the Rainforest (Pages 28–31)**



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Reading for Details:

Taking an Inventory in the Rainforest (Pages 28–31)

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

I can determine the main idea(s) of an informational text based on key details. (RI.5.2)

I can summarize an informational text. (RI.5.2)

I can explain important relationships between people, events, and ideas in a historical, scientific, or technical text using specific details in the text. (RI.5.3)

I can use context (e.g., cause/effect relationships and comparisons in text) to help me understand the meaning of a word or phrase. (L.5.4)

I can draw on information to explore ideas in the discussion. (SL.5.1)

Supporting Learning Targets

- I can explain the purpose of a column study in the rainforest.
- I can identify the types and numbers of species counted during the column study done by Meg Lowman.
- I can use my group members' ideas to help me determine the inventory count of the column study.
- I can determine the meaning of new words from context in *The Most Beautiful Roof in the World*.

Ongoing Assessment

- Journal (Meg Lowman KWL chart, AQUA Biodiversity chart, glossaries, answers to the questions)
- Inventory Count Note-catcher



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Agenda	Teaching Notes
<p>1. <b>Opening</b></p> <p>A. Reviewing Homework and Engaging the Reader (5 minutes)</p> <p>2. <b>Work Time</b></p> <p>A. Guided Practice and Discussion: What Is a Column Study? (15 minutes)</p> <p>B. Rereading and Taking Notes: Taking an Inventory (20 minutes)</p> <p>C. Key Vocabulary to Deepen Understanding (10 minutes)</p> <p>3. <b>Closing and Assessment</b></p> <p>A. Debrief (10 minutes)</p> <p>4. <b>Homework</b></p>	<ul style="list-style-type: none"><li>• Review Red Light, Green Light and Word Sort (see Appendix).</li><li>• Consider writing the vocabulary words on a large piece of chart paper before the lesson to save time during the lesson.</li></ul>



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Lesson Vocabulary	Materials
<p>purpose, identify, justify; column, biological diversity, situated (28), inventory, portion, emerge (29), estimates (30), sweeps (31)</p>	<ul style="list-style-type: none"> <li>• AQUA Biodiversity anchor chart (from Lesson 4 and onward)</li> <li>• <i>The Most Beautiful Roof in the World</i> (book; one per student)</li> <li>• Inventory Count Note-catcher (one per student)</li> <li>• Meg Lowman, Rainforest Scientist KWL anchor chart (from Lesson 1)</li> <li>• Red, yellow and green popsicle sticks (one of each per student)</li> </ul>

Opening	Meeting Students' Needs
<p><b>A. Reviewing Homework and Engaging the Reader (5 minutes)</b></p> <ul style="list-style-type: none"> <li>• Ask students to take out their journals. Invite students to join their group and share one new thing they learned from reading “The Wings of the Butterfly” that they can add to their <b>AQUA Biodiversity anchor chart</b>. Ask a few students to share aloud their suggestions and add them to the U column of the anchor chart.</li> <li>• Ask students to choose one example of biodiversity from their charts to perform or act out silently for their group members to guess.</li> <li>• Invite a few students to act out their example of biodiversity for the whole class to guess.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider partnering an ELL with a student who speaks the same L1 when discussion of complex content is required. This can let students have more meaningful discussions and clarify points in their L1.</li> </ul>



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Work Time	Meeting Students' Needs
<p><b>A. Guided Practice and Discussion: What Is a Column Study? (15 minutes)</b></p> <ul style="list-style-type: none"> <li>• Introduce the learning target: “I can explain the purpose of a column study in the rainforest.” Ask several students to share what they recall about the meaning of the word <i>purpose</i> (reason).</li> <li>• Orient students to page 28 in <i>The Most Beautiful Roof in the World</i>, with the sentence that begins: “Meg and her sons...” Ask students to follow along as you read aloud. Continue through the sentence that ends: “... plants and insects, starting from the ground up.” Ask students what they think it means to <i>inventory</i> something. Listen for students to figure out it means to count. Point out that the word “inventory” can be used as a verb (“to count”) or as a noun (a list of things that have been counted). It is used in both ways in the text students read during this lesson.</li> <li>• Prompt students to briefly talk in their groups about the gist of this page. Listen for thoughts such as: “Meg Lowman setting up a column study,” or similar ideas.</li> <li>• Ask students to share out what they think a <i>column</i> is. Listen for definitions such as: “something that goes from top to bottom or bottom to top; like a post or a pillar,” or similar ideas.</li> <li>• Direct students’ attention to the third (last) paragraph on page 28, beginning: “The boys help their mom ferry equipment . . .”</li> <li>• Ask students to take 5 minutes to reread this last paragraph on their own to determine:             <ul style="list-style-type: none"> <li>* “What is a <i>column</i> study?”</li> <li>* “Why does Meg Lowman do column studies?”</li> </ul> </li> <li>• Circulate to support as needed.</li> <li>• After students have finished reading, ask groups to briefly discuss.</li> <li>• Ask several students to share out whole group. For the first question, listen for ideas such as: “A column study is specific areas marked off to study biological diversity or different species of plants and animals; columns of areas from ground up that Meg Lowman studies,” etc.</li> <li>• Ask several students to share out whole group. For the second question, listen for ideas such as: “She wants to count different species of plant and insects in the rainforest from the ground up,” etc.</li> <li>• Tell students to turn to a new page in their journals to write their response to the two questions.</li> </ul>	<ul style="list-style-type: none"> <li>• ELLs may be unfamiliar with Tier 2 vocabulary words (e.g., <i>purpose</i>, <i>column</i>, <i>study</i>). Clarify vocabulary with students as needed.</li> <li>• Visuals can help students comprehend questions and discussions. Chart main points in answers and post all questions asked to students.</li> </ul>



Reading for Details:

Taking an Inventory in the Rainforest (Pages 28–31)

Work Time (continued)	Meeting Students' Needs
<p><b>B. Rereading and Taking Notes: Taking an Inventory (20 minutes)</b></p> <ul style="list-style-type: none"><li>• Introduce the learning target: “I can identify the types and numbers of species counted during the column study done by Meg Lowman.” Ask a few students to share what they remember about the meaning of the word <i>identify</i> (name; determine).</li><li>• Reread page 31, paragraph 3 to students (“The sweeps, the beating trays . . .”) as students follow along silently. Ask students to pay close attention to: <i>what</i> Meg Lowman did during her column study and <i>why</i>.</li><li>• Display the <b>Inventory Count Note-catcher</b>, and distribute one per student. Explain to students they will work in their groups to read page 29, starting with: “There have been many methods devised . . .” through the end of the third paragraph on page 31 (“... snapshots of diverse rainforest life.”) They will then work with their group to determine the inventory count of the column study.</li><li>• Point out to students that in this section of the text, the word <i>inventory</i> is used as a noun. Ask students to explain the word’s meaning (explained earlier): list; what is being counted. Explain to students that they will read to <i>identify</i> what inventory Meg Lowman counted in different parts of the column study area. Then they will record the inventory they identify on their Inventory Count Note-catchers. Clarify any instructions as necessary.</li><li>• Ask students to take 2 to 3 minutes to skim the text again for information about the column study.</li><li>• Then prompt students to reread more closely to identify the species and counts of inventory to record on their Note-catchers. (10 to 15 minutes)</li><li>• Circulate to support as needed.</li></ul>	<ul style="list-style-type: none"><li>• Students needing additional supports may benefit from a partially filled-in Note-catcher.</li><li>• ELL language acquisition is facilitated by interacting with native speakers of English who provide models of language.</li></ul>



Reading for Details:

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Work Time (continued)	Meeting Students' Needs
<p><b>C. Key Vocabulary to Deepen Understanding (10 minutes)</b></p> <ul style="list-style-type: none"><li>• Introduce the learning target: “I can determine the meaning of new words from context in <i>The Most Beautiful Roof in the World</i>.” Invite a few students to restate this target in their own words.</li><li>• Remind students of the Word Sort activity they have done in previous lessons. Ask students to share what they do during a Word Sort. Listen for answers such as: “place words into categories; be able to justify why we put words into certain categories,” and similar statements.</li><li>• List the following words on the board:<ul style="list-style-type: none"><li>* column, biological diversity, situated, inventory, portion, emerge, estimates, sweeps</li></ul></li><li>• Ask students to turn to a new page in their journals and divide the page into two columns. Ask them to label the left-hand column: What Meg Lowman Studies in the Rainforest. Ask them to label the right-hand column: How Meg Lowman Studies in the Rainforest. Clarify the distinction between these two columns if needed.</li><li>• Tell students that they will work with their group to think about how to sort the words into the two categories. This will provide students a way to reflect upon and process the key vocabulary related to what they read about the column study.</li><li>• Remind students that they need to <i>justify</i> their choice: This means that they need to explain to their group members why they think a word belongs in one category or the other. This means they will have to explain to their group what the word means. Model with one word as needed</li><li>• Give students 3 to 4 minutes to work in their groups. Circulate to support as needed.</li><li>• Invite a few groups to share with the entire class their categories and their reasons for sorting words into each category.</li></ul>	<ul style="list-style-type: none"><li>• Consider giving students who struggle with language fewer vocabulary words to sort.</li><li>• Provide a visual with each word to be sorted to allow students who struggle with vocabulary to fully participate.</li></ul>



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Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none"><li>• After students have shared out, ask for them to suggest meanings for each word. Again remind students that what is most important is that they are practicing figuring out hard words in context. They do not need to memorize every single word on this list:<ul style="list-style-type: none"><li>* <i>column</i>: a post; pillar; pole; or a shape like a post, pillar, or pole</li><li>* <i>biological diversity</i>: various and different living things that are found within a community or a particular area of land</li><li>* <i>situated</i>: positioned; placed</li><li>* <i>to inventory</i> (v): to list; to count; to record</li><li>* <i>inventory</i> (n): supply; account; record</li><li>* <i>portion</i>: piece; select area</li><li>* <i>emerge</i>: appear; come out</li><li>* <i>estimates</i>: close guesses; educated guesses</li><li>* <i>set of sweeps</i>: a technique for sampling insects; using a net to capture insects in the air</li></ul></li><li>• Let students briefly revise their Word Sorts based on new understandings about vocabulary.</li></ul>	<ul style="list-style-type: none"><li>• Consider giving students who struggle with language fewer vocabulary words to sort.</li><li>• Provide a visual with each word to be sorted to allow students who struggle with vocabulary to fully participate.</li></ul>



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Closing and Assessment	Meeting Students' Needs
<p><b>A. Debrief (5 minutes)</b></p> <ul style="list-style-type: none"><li>• Direct students to the <b>Meg Lowman, Rainforest Scientist KWL anchor chart</b>. Ask: “What have we learned about Meg Lowman that we can add to our KWL?” Record students’ responses in the L column of the chart. (Students add to the KWL in their journals.)</li><li>• Explain to students that they will participate in a new activity called Red Light, Green Light to show how close they got to mastering today’s learning targets.<ul style="list-style-type: none"><li>* Red: Didn’t get it</li><li>* Yellow: Got some of it</li><li>* Green: I got it!</li></ul></li><li>• Distribute one <b>red, yellow, and green popsicle stick</b> to each student. Read each learning target aloud, pausing after each to allow students to show red, yellow, or green.</li></ul> <p><i>Note students who display red or yellow, because they may need more support or additional strategies to understand the text and/or new vocabulary.</i></p>	<ul style="list-style-type: none"><li>• For students needing additional supports producing language, consider offering a sentence frame, sentence starter, or cloze sentence to provide the structure required.</li></ul>



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Homework	Meeting Students' Needs
<ul style="list-style-type: none"><li>• Reread pages 28–31 and the Inventory Count Note-catcher to someone (or yourself) at home.</li><li>• Choose two new academic and two new scientific vocabulary words from pages 28–31 to add to the glossaries in your journal. Choose from this list: purpose, identify, justify, column, biological diversity, situated (28), inventory, portion, emerge (29), estimates (30), sweeps (31).</li><li>• Do a first draft read of pages 31–33. Think about Meg Lowman's sons' reaction to their first canopy ascent, and be ready to share your thoughts with a partner tomorrow.</li></ul>	<ul style="list-style-type: none"><li>• Audio recordings of text can aid students in comprehension. Students can pause and replay confusing portions while they follow along with the text.</li><li>• For students who may have difficulty determining important words to add to their glossaries, consider prioritizing the following words for them: <i>purpose</i>, <i>identify</i> (academic); <i>inventory</i> (scientific)</li></ul>



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## Supporting Materials



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Inventory Count Note-catcher

.....  
**Name:**

.....  
**Date:**

Visualize how Meg Lowman starts at the tops of trees, in the understory, and works her way down the column to the air just above the forest floor. What does she see?

<b>Part of Column</b>	<b>List the Species and Counts of the Inventory</b>

Teacher Resource: Inventory Count Note-catcher

.....  
Name:

.....  
Date:

Visualize how Meg Lowman starts at the tops of trees, in the understory, and works her way down the column to the air just above the forest floor. What does she see?

<b>Part of Column</b>	<b>List the Species and Counts of the Inventory</b>
Understory	<b>4 kinds of Trees: 1 grias, 1 palm, 1 acacia, 1 “unknown”</b>
Layer down from the understory	<b>41 saplings/5 species 197 seedlings 10 ferns/3 species 41 lycopods (mosses)/5 species lichens/3 kinds 37 epiphytes</b>
Shrubbery	<b>a leaf hopper ants cockroaches springtails spiders a caterpillar</b>
Air above the ground (floor)	<b>a leaf hopper 3 diptera (flies) 3 beetles</b>