



EXPEDITIONARY
LEARNING

Grade 5: Module 2A: Unit 2: Lesson 2

Reading and Writing About How to Perform a Process: How Meg Lowman Studies the Rainforest (Pages 4–8)



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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 how authors use evidence and reasons to support their points in informational texts. (RI.5.8)
- I can produce clear and coherent writing that is appropriate to task, purpose, and audience. (W.5.4)
- 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 connect my questions and responses to what others say. (SL.5.1)

Supporting Learning Targets

- I can determine the process Meg Lowman uses to preserve specimens.
- I can list the steps to preserving a specimen from the natural world.
- I can contribute to my group's discussion by giving suggestions that are on topic.
- I can determine the meaning of new words from context in *The Most Beautiful Roof in the World*.
- I can follow steps for collecting and preserving specimens.

Ongoing Assessment

- Steps to Preserve a Specimen Note-catcher
- Preserved specimen



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Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Reviewing Homework and Engaging the Reader (5 minutes)Introducing Learning Targets (5 minutes)Work Time<ol style="list-style-type: none">Read-aloud and Main Idea: How Meg Lowman Studies the Rainforest (10 minutes)Group Read: Rereading and Listing Details (10 minutes)Key Vocabulary to Deepen Understanding (10 minutes)Following Steps to Preserve a Specimen (15 minutes)Closing and Assessment<ol style="list-style-type: none">Debrief (5 minutes)Homework	<ul style="list-style-type: none">This lesson involves students working with specimens from the natural world.There are two options for preparation:<ul style="list-style-type: none">* Option 1: Teacher collects specimens (e.g., leaves, flowers, plant parts) from nature for students to use during this lesson.* Option 2: As a class, find another time of the day (prior to the lesson) to take students outside to an area on/near school grounds where students may gather their own specimens from nature.Review: Quiz-Quiz-Trade Protocol and Glass-Bugs-Mud Strategy (Appendix)Prepare the Quiz-Quiz-Trade vocabulary (see supporting materials). Cut the words into strips, then fold each strip along the vertical line, so the word is visible on one side and the definition is visible on the opposite side.For many lessons in Unit 2, students reread the passages from the lessons to someone at home for homework. This promotes students' reading fluency.In this unit, vocabulary instruction occurs daily: It is routine and brief, and heavily emphasizes learning words from context. For those students who perhaps need more supports, see suggestions for teaching vocabulary strategies in Appendix 1.



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Lesson Vocabulary	Materials
process, pressing, list, determine, communicates, context, sorts, specimens, collections, permit (4), orchids, bromeliads (7), blossoms, preserve, solution, three-dimensional form, pickled (8), acid-free, herbarium, pluck, sailed aloft, trapezes, foliage, inflatable, ascent, marvelous	<ul style="list-style-type: none">• <i>The Most Beautiful Roof in the World</i> (book; one per student)• Process for Pressing Specimens Note-catcher (one per group)• Quiz-Quiz-Trade vocabulary (cut into individual words/definitions; see Teaching Note)• Materials for preserving a specimen per group:<ul style="list-style-type: none">– One box/other item to represent a “low-temperature oven”– Four sheets of newspaper– Four sheets of cardboard– Acid-free paper (one sheet per student)– Glue– Specimen from nature (one per student)• Meg Lowman, Rainforest Scientist KWL anchor chart (from Lesson 1)



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Opening	Meeting Students' Needs
<p>A. Reviewing Homework and Engaging the Reader (5 minutes)</p> <ul style="list-style-type: none"> • Ask students to take out their journals and share with a partner one more thing they learned about Meg Lowman from their rereading and the vocabulary they chose to add to their glossaries. • To generate excitement, focus students on the specimens that were gathered in advance (either by you or by the class during some other part of the day; see Teaching Notes). Explain that they will read about how Meg Lowman collects and preserves specimens in the rainforest and then will get to follow her process to do the same with their specimens. Collect all the specimens in one area of the classroom and ask students to identify each specimen (e.g., piece of grass, flower petal, leaf from a tree). • Set specimens aside for use in Work Time B. 	<ul style="list-style-type: none"> •
<p>B. Introducing Learning Targets (5 minutes)</p> <ul style="list-style-type: none"> • Introduce the learning targets: “I can determine the process Meg Lowman uses to preserve specimens,” and “I can outline the steps to preserving a specimen from the natural world.” Ask students what <i>process</i> means, listening for responses such as: “steps to complete a project; a certain order for doing things.” Then ask for suggestions about what a <i>list</i> is. Listen for students to share ideas like: “writing out steps in order; using short phrases or words.” • Review the term <i>determine</i> by asking several students to share what they recall about its meaning: <ul style="list-style-type: none"> * <i>determine</i>: decide; conclude 	<ul style="list-style-type: none"> • ELLs may be unfamiliar with Tier 2 vocabulary words (e.g., <i>preserve</i>, <i>specimens</i>, <i>natural world</i>). Clarify vocabulary with students as needed.



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Work Time	Meeting Students' Needs
<p>A. Read-aloud and Main Idea: How Meg Lowman Studies the Rainforest (10 minutes)</p> <ul style="list-style-type: none"> Ask students to join their groups (from Lesson 1) with their journals and their texts: <i>The Most Beautiful Roof in the World</i>. Ask students to remind themselves what they pay attention to during a first read. Listen for students to say “gist” or “main idea.” Remind them to do that again today. Focus students on the paragraph on page 4 that begins with the phrase “When Meg is at Selby Gardens . . .” Read pages 4–8 aloud to students, as they read along silently. (End with “And it has been exciting . . . tops of trees in the tanks of bromeliads.”) Ask students to briefly discuss the gist of the read-aloud with their group members. Invite several students to share aloud, listening for: “how Meg Lowman prepares/preserves the samples she collects,” or similar ideas. 	<ul style="list-style-type: none"> ELL language acquisition is facilitated by interacting with native speakers of English who provide models of language. When possible, provide text or materials in students’ L1. This can help students understand materials presented in English.
<p>B. Group Read: Rereading and Listing Details (10 minutes)</p> <ul style="list-style-type: none"> Read aloud the learning target: “I can contribute to my group’s discussion by giving suggestions that are on topic.” Ask students to give suggestions for ways they can contribute to their group’s discussion. Listen for suggestions such as: “talking about the text; reading the text carefully; making sure everyone has a turn to speak,” etc. Distribute the Process for Pressing Specimens Note-catcher, one per group. Ask students to read the single paragraph on page 7 and the first paragraph on page 8 (ending with, “... the herbarium, a plant library”) on their own. Say: “Pay close attention to the process Meg Lowman uses to preserve her specimens, specifically her process for <i>pressing</i>. Make sure to examine the photographs as well. Remember, these are valuable features of informational text that can help readers understand text. After you have finished reading, discuss with your group: ‘What steps does Meg Lowman use for <i>pressing</i> specimens?’” Tell students that they will create an outline of those steps to use for pressing their own specimens. Invite students to begin reading. As groups begin to create lists, circulate among students to support as necessary. 	<ul style="list-style-type: none"> Students needing additional supports may benefit from partially filled-in graphic organizers.



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Work Time (continued)	Meeting Students' Needs
<p>C. Key Vocabulary to Deepen Understanding (10 minutes)</p> <ul style="list-style-type: none">• Introduce the learning target: "I can determine the meaning of new words from context in <i>The Most Beautiful Roof in the World</i>." Ask students to recall the meaning of the word <i>context</i> (using the words/sentences around a word to help determine its meaning).• Students likely can figure out many of the Quiz-Quiz-Trade Vocabulary in context. The Quiz-Quiz-Trade Vocabulary is prepared in advance to save time in the lesson. Encourage students to find the meaning of the words themselves, in context, before reading the definition provided on the cards.• Tell students that now they will participate in an activity called Quiz-Quiz-Trade to help them review and/or learn definitions for some of the key vocabulary from the reading.• Explain Quiz-Quiz-Trade (and model if needed).<ul style="list-style-type: none">* Students will need two materials:<ol style="list-style-type: none">1. A strip with a vocabulary word on one side and the definition folded over to the opposite side2. Their copies of <i>The Most Beautiful Roof in the World</i> (to use for defining unknown words using context clues)* Each student finds a partner.* Partner A shows the side of the paper with the word on it.* Partner B says the definition (if he/she knows it), or finds the word in the text and tries to determine the definition, using context clues.* Partner A then reads the definition aloud to confirm or correct the definition that Partner B gave.* Partners switch roles and repeat the steps above.* Partners then trade vocabulary slips and find a new partner.• Begin Quiz-Quiz-Trade. Be sure all students meet with at least two partners. Circulate to listen in on students' definitions of vocabulary and use of context clues to help them define the word. Note which students may need more support/additional vocabulary strategies/practice in order to understand the text.•	<ul style="list-style-type: none">• Increase interactions with vocabulary in context. This increases the rate of vocabulary acquisition for ELLs.• Consider writing and breaking down multistep directions into numbered elements. ELLs can return to these guidelines to make sure they are on track.



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Work Time (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• After approximately 5–7 minutes, ask students to return to their groups. Make sure to emphasize the following vocabulary to students, as these words will appear frequently throughout the text. Ask students to share the meaning of each word, listening for responses such as:<ul style="list-style-type: none">* <i>ascent</i>: climb; a move upward (academic)* <i>sorts</i>: places into categories; arranges; classifies (academic)* <i>specimens</i>: examples; samples; a type of something (academic)* <i>collection</i>: a set of objects; a group of things (academic)* <i>foliage</i>: plant life (scientific)* <i>bromeliad</i>: a tropical plant with fleshy leaves; often grows on other plants (scientific)* <i>herbarium</i>: a plant library (scientific)• Offer groups the opportunity to revise any steps they listed and described on their Process for Pressing Specimens Note-catcher now that they are more familiar with some of the key vocabulary from the text.	<ul style="list-style-type: none">•



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Work Time (continued)	Meeting Students' Needs
<p>C. Following Steps to Preserve a Specimen (15 minutes)</p> <ul style="list-style-type: none">• Distribute materials to each group:<ul style="list-style-type: none">* One box/other item to represent a “low-temperature oven”* Four sheets of newspaper* Four sheets of cardboard* Acid-free paper (one sheet per student)* Glue* Specimen from nature (one per student)• Read aloud the learning target: “I can follow steps for collecting and preserving specimens.”• Tell students that they will now “press” their own specimens. Ask each group to trade their Process for Pressing Specimens Note-catcher with another group.• Each member of the group will follow the steps that the other group wrote on their Note-catcher.• Give students 7 to 8 minutes to follow the steps listed on the Note-catcher and press their specimens. Circulate to support as needed.• Next, ask groups to get back together with the group whose Note-catcher they used. Ask students to discuss:<ul style="list-style-type: none">* “How well were you able to press your specimens based on the steps listed?”• Remind students to share positive feedback with one another first, and then make one suggestion for improving their written steps for a process.• As groups discuss, move among students to offer support and/or clarification as necessary.• Optional: Collect students' pressed specimens and create a class “herbarium.”	<ul style="list-style-type: none">• Consider providing extra time for tasks. Some students need more time to process and translate information.



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Closing and Assessment	Meeting Students' Needs
<p>A. Debrief (5 minutes)</p> <ul style="list-style-type: none">• Bring students' attention back to the Meg Lowman, Rainforest Scientist KWL anchor chart from Lesson 1. Ask students to briefly share out what they learned about Meg Lowman from the reading today, and record students' ideas in the L column of the KWL. Remind students to add any new information to the chart in their journals.• Reread the first two learning targets aloud, one at a time. Ask students to use the Glass, Bugs, Mud strategy to show their understanding of each target.• <p><i>Note any students showing Mud for these learning targets, as they may require more support during activities with multiple steps and/or reading and following multistep instructions.</i></p>	<ul style="list-style-type: none">• Consider allowing students to draw their observations, ideas, or notes when appropriate. This allows all students to participate in a meaningful way.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• This homework has three parts: <ol style="list-style-type: none">1. Reread pages 4–8 to someone (or yourself) at home. Be prepared to share something new you learned about Meg Lowman in class tomorrow.2. Add to the Meg Lowman KWL chart in your journal.3. Choose three academic and two scientific vocabulary words that were discussed in the lesson today to add to the glossary in your journal. Choose from this list: process, pressing, list, determine, communicates, context, sorts, specimens, collections, permit (4), orchids, bromeliads (7), blossoms, preserve, solution, three-dimensional form, pickled (8), acid-free, herbarium, pluck, sailed aloft, trapezes, foliage, inflatable, ascent, marvelous.	<ul style="list-style-type: none">• Audio recordings of text can aid some students in comprehension. Students can pause and replay confusing portions while they follow along with the text.• For students who may have difficulty determining important words to add to their glossaries, consider prioritizing the following words for them: =, <i>sorts</i>, <i>collections</i> (academic); <i>foliage</i>, <i>bromeliad</i> (scientific).



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Supporting Materials



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Process for Pressing Specimens Note-catcher

Group Member Names:

Date:

Step (one or two words to name the step)	Description of Step (define or describe the step using details in the text)



Process for Pressing Specimens Note-catcher
(Answers for Teacher Reference)

Group Member Names:

Date:

Step (one or two words to name the step)	Description of Step (define or describe the step using details in the text)
Newspaper	Fold flowers/leaves carefully in newspaper.
Cardboard	Place the newspaper with flowers/leaves between two sheets of cardboard.
Dry	Place specimens in low-temperature oven.
Glue	Glue specimen onto acid-free paper.
Tag/Label	Write the name of the specimen; write information about the specimen on the acid-free paper (below, above, next to the specimen.)
Herbarium	Place specimen in the herbarium – plant library.



Quiz-Quiz-Trade Vocabulary

orchid	a flowering plant; some types grow on other plants
bromeliad	a tropical plant with fleshy leaves; often grow on other plants
blossoms	flowering part of a plant
preserve	treat or store something to protect it; keep it from breaking apart
solution	two or more substances mixed together; used to preserve a specimen
three-dimensional form	an object that has height, width, and volume
acid-free	paper that doesn't use acid; helps specimens last longer
herbarium	a plant library
pluck	remove; pull; pick at; grasp
sailed	glided; floated; moved smoothly
aloft	high above; in the air; up
ascent	climb; move upward
trapeze	a bar attached to the ends of two ropes
foliage	plant life
inflatable	able to be filled with air
marvelous	amazing; spectacular; wonderful
sorts	places into categories; arranges; classifies
specimens	examples; samples; a type of something
collection	a set of objects; a group of things
permit	a license allowing something; giving permission