



EXPEDITIONARY
LEARNING

Grade 5: Module 2A: Unit 1: Lesson 1

Building Background Knowledge: Examining the Unique Living Things of the Rainforests and the Scientists Who Study Them



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

I can compare and contrast the organizational structure of different informational texts. (RI.5.5)
I can explain important relationships between ideas in a scientific text using specific details in the text. (RI.5.3)
I can summarize information that is presented in pictures and/or numbers. (SL.5.2)
I can prepare myself to participate in discussions. (SL.5.1)
I can follow our class norms when I participate in a conversation. (SL.5.1)
I can write for a variety of reasons. (W.5.10)

Supporting Learning Targets

- I can listen effectively to my partner when sharing.
- I can record what I notice and wonder about during a Gallery Walk.
- I can compare and contrast texts and images about rainforests.
- I can describe in writing a unique living thing from the rainforest.
- I can explain how scientists communicate their research about the rainforest.
- I can explain the general purpose of an informational text.

Ongoing Assessment

- Journal (KWL chart, Notices and Wonders, paragraph)



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Agenda	Teaching Notes
<ol style="list-style-type: none">1. Opening<ol style="list-style-type: none">A. Unit Overview: What Do We Know about the Rainforest? (10 minutes)B. What Do We Want to Know about the Rainforest? (10 minutes)2. Work Time<ol style="list-style-type: none">A. Gallery Walk: Exploring the Rainforest (10 minutes)B. Partner Talk and Independent Writing: Becoming a Scientist (15 minutes)C. Defining Informational Text (5 minutes)3. Closing and Assessment<ol style="list-style-type: none">A. Debrief (10 minutes)4. Homework	<ul style="list-style-type: none">• In advance: Print out and display images and texts about the rainforest for the Gallery Walk (see list of links in supporting materials). Alternatively, print several copies of each image in order to give each group all images to look through instead of posting them in the room.• Print out, or be ready to project, Map of Rainforests around the World (from supporting materials).• Review: Gallery Walk, Fist to Five, and Think-Pair-Share (see Appendix). Note that Think-Pair-Share is used throughout the module.• In this lesson, students set up their reading journal, in which they will keep the majority of the notes and record of their learning during the module. A spiral or composition notebook would work well for this purpose. Take time with this, because it is a very important component of the module.



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Lesson Vocabulary	Materials
explain, purpose, compare, contrast, notice, wonder, effectively; discovered, biologist, ecologist, subterranean, amazed, prey, amphibians, interact, species, intensely, competitive, trek, reptiles, binoculars, tape recorder, headlight, strapped, solution, preserves, findings	<ul style="list-style-type: none">• Journals (one per student)• Rainforest KWL anchor chart (new; teacher-created; see example in supporting materials)• Major Rainforests (one to display)• Images and texts for Gallery Walk (see supporting materials for examples; feel free to use your own)• Informational Text anchor chart (new; teacher-created; see Work Time C)



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Opening	Meeting Students' Needs
<p>A. Unit Overview: What Do We Know about the Rainforest? (10 minutes)</p> <ul style="list-style-type: none"> • Introduce the journals as a place for students to record notes (like scientists). Remind students of the journals they used in Module 1 to write responses to literature and keep notes on their thinking. Have them use the first two-page spread in their journal to create a large Rainforest KWL chart (see example in supporting materials; this needs to be big so that students can add to it over the course of the module): <ul style="list-style-type: none"> * K for “Know already” * W for “What I want to know” (questions) * L for what students “Learn” • Read aloud the learning target: “I can listen effectively to my partner when sharing.” Discuss the word <i>effectively</i> with students. Ask students to share any familiar word they see as part of the word <i>effectively</i>. Listen for the word <i>effective</i>. Ask students what an effective listener does. Listen for answers such as: “He or she gives his/her full attention to the speaker, not interrupting, listening fully, and looking directly at the speaker while she/he is sharing ideas.” • Ask students to independently brainstorm what they already know about living things unique to the rainforest, and to record their ideas in the K column of their KWL charts. You may need to explain that living things unique to the rainforest are found only in the rainforest, and not in any other areas. Encourage the class to think about both plants and animals. • Have students share with a partner what they know already. Listen to conversations to gauge existing background knowledge as well as any misconceptions they may have. • Display the Rainforest KWL anchor chart. Ask groups to share out what they know already about the rainforest. Record student ideas in the K column of the chart. (Keep this posted throughout the module for students to add to and reference as they learn more about rainforests.) Encourage them to add to their own charts in their journals. • Explain that there are two focuses for this module: <ol style="list-style-type: none"> 1. They are going to become researchers and scientists in order to learn more about the unique life that exists in the rainforests. 2. They also will be building their skills as readers and writers. As they study the rainforest, they also will be learning even more about how to read informational text and write effectively to communicate with others. 	<ul style="list-style-type: none"> • Provide nonlinguistic symbols (e.g., an ear for <i>listen</i>) to assist ELLs and other struggling readers in making connections with vocabulary. These symbols can be used throughout the module. Specifically, they can be used in directions and learning targets. • Consider allowing students to draw their ideas during the brainstorm. This allows students who struggle with written language to participate in a meaningful way. • Consider partnering an ELL with a student who speaks the same L1 when discussing their ideas about the rainforest. This can let students have more meaningful discussions and clarify points in their L1. • Visuals can help students comprehend questions, discussions, and concepts.



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Opening (continued)	Meeting Students' Needs
<ul style="list-style-type: none">• Show a picture of the Major Rainforests with Panama and New York highlighted. Ask students what they notice and wonder about this picture. Cold call students to share out their thoughts. (Note: This is a worldview of rainforests. In later lessons, students will “zoom in on” rainforests specifically located in the Western Hemisphere.)	
<p>B. What Do We Want to Know about the Rainforest? (10 minutes)</p> <ul style="list-style-type: none">• Place students in groups of three to four and ask them to brainstorm questions they have about rainforests. Remind students to add their questions, “What I Want to Know,” to the W column of the KWL chart in their journals.• After several minutes, ask groups to share out their questions. Record students’ questions in the W column of the Rainforest KWL anchor chart. Encourage students to record interesting questions from other students in their individual KWL charts in their journals.	<ul style="list-style-type: none">• ELL language acquisition is facilitated by interacting with native speakers of English who provide models of language.• Students needing additional supports may benefit from partially filled-in graphic organizers.



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Work Time	Meeting Students' Needs
<p>A. Gallery Walk: Exploring the Rainforest (10 minutes)</p> <ul style="list-style-type: none"> • Ask students to begin a new page in their journals titled: Notices and Wonders—Scientific Research in Rainforests. • Introduce the learning target: “I can record what I notice and wonder about during a Gallery Walk.” Ask students to give synonyms for the words <i>notice</i> and <i>wonder</i>. Explain that they will want to use their journals to record what they see (notice) in the texts and pictures, and what questions (wonder) they have about the text and images. Remind them that they used this notice and wonder routine in Module 1. • Share the learning target: “I can compare and contrast texts and images about rainforests.” Focus students’ attention on the words <i>compare</i> and <i>contrast</i>, asking them what those words might mean. Look for answers such as: “To compare means to find similarities, and to contrast means to find differences.” • Review the Gallery Walk protocol with students. Tell them that this time, they will observe silently. Their “notices” and “wonders” do not have to be in complete sentences. • Focus students on the images and text for Gallery Walk. Begin the Gallery Walk. Give students about 5 minutes to move about the room and record “notices” and “wonders” in their journals. • Ask several students to share out orally what they notice and wonder. “How will you use the novel and informational texts?” 	<ul style="list-style-type: none"> • All students developing academic language will benefit from direct instruction of academic vocabulary. • Provide anchor charts for processes, such as How to Notice and Wonder. This would include question words with nonlinguistic representations (e.g., an eye for notice, a question mark for wonder) and a question frame: “I notice ...” or “I wonder....”
<p>B. Partner Talk and Independent Writing: Becoming a Scientist (15 minutes)</p> <ul style="list-style-type: none"> • Introduce the learning target: “I can explain how scientists communicate their work about the rainforest.” Focus on the word <i>explain</i>. Let students know that they are just beginning to work on this target. Throughout the unit, they will examine the research of several rainforest scientists to help them more fully understand how scientists communicate their discoveries. • Ask students to find a partner. Ask them to choose just one image from the Gallery Walk on which to focus. Say to the class: “Pretend you are a scientific team working in the rainforest. Talk with your partner about how you would explain, or describe, what you are doing or seeing to someone who wasn’t there.” • After students have had a few minutes to talk about their descriptions, have them each write a brief paragraph in their journal describing what they are doing or seeing in the photograph (under Notices and Wonders). Have two sets of student pairs share their writing with each other. Then student partners share out with yet another pair. Then choose a few partners to share out with the whole group. 	<ul style="list-style-type: none"> • Some students may be unfamiliar with Tier 2 vocabulary words (e.g., <i>communicate</i>, <i>work</i>, <i>about</i>). Clarify vocabulary with students as needed. • Allowing students who struggle with writing to dictate their paragraph to their partner or the teacher will let them participate in a meaningful way.



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Work Time (continued)	Meeting Students' Needs
<p>C. Defining Informational Text (5 minutes)</p> <ul style="list-style-type: none">• Introduce the learning target: "I can explain the purpose of an informational text." Ask students to explain the word <i>purpose</i>, looking for answers such as: "It means having a reason for using and/or studying a specific type of information."• Ask students to explain what informational text is. Teach <i>informational</i> as a vocabulary word, looking at the <i>inform</i> part of the word and defining this as communicating knowledge or information.• Create an Informational Text anchor chart, writing the class's definition at the top under the title. Invite students to brainstorm about how they think scientists communicate about their work. After allowing a moment of think time, ask students to share out their ideas and add them to the anchor chart. (Listen for examples such as: articles, books, journals, blogs, Web sites, etc.)• Ask students how any of the texts or images they viewed in the Gallery Walk might be, or come from, informational text.• Make sure students understand that there are many types of informational texts. Ask students to share any other types of informational texts they have seen during previous learning (for example, students may share that the UDHR they studied is an informational text and/or other texts about Mexico, the Great Depression, or immigration from Module 1).	<ul style="list-style-type: none">• Use vocabulary learning strategies to support all learners: specifically (in this case) the root of the word <i>informational</i>.• Adding visuals (either drawn, pictures, or photographs) of the examples of informational texts to the anchor chart will allow students who struggle with language to understand the concept.



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Closing and Assessment	Meeting Students' Needs
<p>A. Debrief (10 minutes)</p> <ul style="list-style-type: none">• Review the learning targets: Read each one aloud one at a time and use the Fist to Five strategy to gauge how well students did meeting each target.• Invite students to look back at the questions they recorded in their journals (KWL—W column = What I Want to Know) and on the anchor chart. Have students consider:<ul style="list-style-type: none">* “What are you most excited about learning about the rainforest and why?”• Remind students that they will not only be learning about the rainforest. they will also be learning about how scientists research and communicate their findings. At the end of the module, <i>they</i> will get to be scientists and communicate what they have learned to others.• Cold call individual students to share out loud. Have classmates show a thumbs-up if they chose the same/similar topics of interest.	<ul style="list-style-type: none">• Checking in individually with students who struggle with language will ensure that you get a true gauge of where they feel they are with the learning targets.• For students who struggle with language, consider providing extra time for tasks and answering questions in class discussions. Students often need more time to process and translate information.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Explain to someone at home what you will be studying. <p><i>Note: The anchor charts created in this lesson will be used many times throughout the module. Be sure to keep them visible and easily accessible in the classroom. Make sure students know that they will keep most of their thinking in their journals; it will be important that they keep track of their journals and keep up with the classwork and homework assigned.</i></p>	



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Supporting Materials



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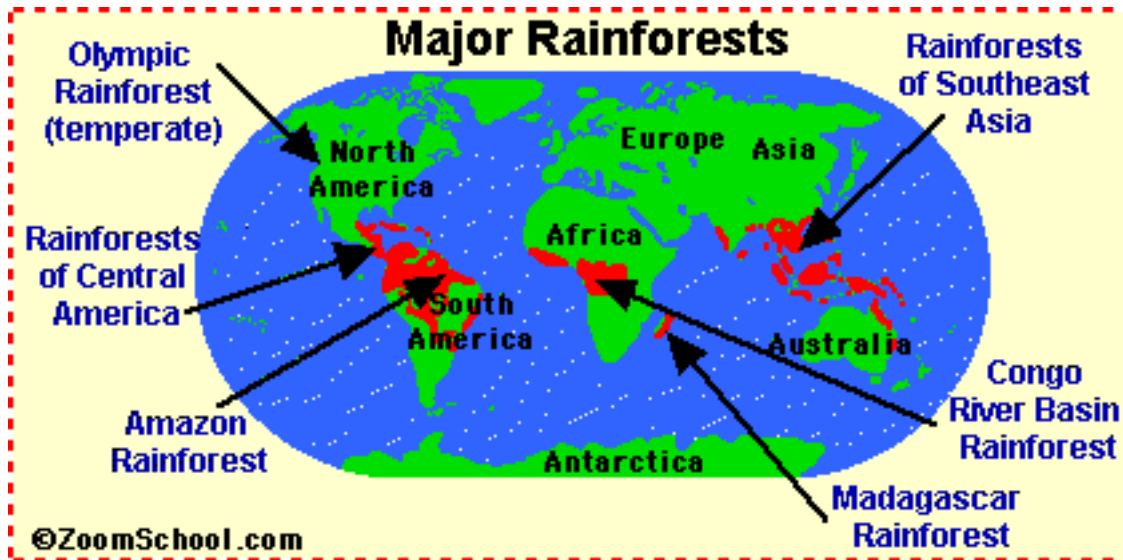


Rainforest KWL Chart
(For Teacher Reference)

K What I already KNOW about this topic	W What I WANT to know about this topic	L What I have LEARNED about this topic



Major Rainforests



Source: Zoomschool.com. Educational use permitted.



Images and Text for Gallery Walk

Access to the materials can be found at the following websites:

Doing field research in the rainforest:

www.fredhoogervorst.com/photo/10643c/

Anna and Marco measuring trees' growth in the Atlantic rainforest:

alcoa.typepad.com/.a/6a00e553e967d588340153906f3233970b-800wi

Scientists who ventured into the heart of Borneo for their research:

www.borneotravelblog.com/2012_03_01_archive.html

Rainforest conservation volunteer opportunities:

www.cultural-ecology.com/images/crrainforce2.jpg

New way to help farmers deal with climate change:

www.adventuretravelnews.com/wp-content/uploads/2011/02/2.jpg

Clues from the rainforest could help scientists solve energy problems:

newscenter.lbl.gov/wp-content/uploads/dsc02007.jpg

The rainforest:

http://upload.wikimedia.org/wikipedia/commons/d/d3/Rain_Forest_Daintree_Australia.jpg

Goat Cove in the Great Bear Rainforest, British Columbia, Canada:

<http://www.greenpeace.org.uk/files/images/migrated/MultimediaFiles/Live/Image/7212.JPG>