Activity 3: Bicultural literacy exchange. Having completed their ecosystem books, students are now in a position to share them. For example, students in my class sent their wetland ecosystem books to a 5th grade class in Kenya; in turn, Kenyan students designed their own Savanna books and sent them back to our class, thus students learned from each other in this bicultural literacy exchange project (see **5th Students' work L3** folder for book exchange and pen pal letters).

Purpose: To provide students with an opportunity to share their knowledge with other students, and in turn, receive constructive feedback and answers to their questions (at the end of their books). Students also have an opportunity to learn about another ecosystem (Savannas) from students who live in or nearby them. Thus, students are essentially learning from each other by reading and writing, which function as a means for co-constructing knowledge and sharing relevant and personally meaningful information. This learning and teaching platform fosters a community of learners and inquirers. Students' finished products can contribute to an in class library, school library, and even worldwide web access to other students around the world. This builds a sense of ownership, pride, and confidence in one's work.

Materials: Research reports, template books, pencil, colored pencils, crayons, markers, water-color paper, watercolors, cups, paint brushes, Internet access, books, magazines, articles, consult experts, etc.

Common Core Standards:

English Language Arts Standards:

Reading: Informational Text:

Craft and Structure:
CCSS.ELA-Literacy.RI.3.4 (third), 4.4 (fourth), and 5.4 (fifth) Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3-5 topic or subject.

Integration of Knowledge and Ideas:
CCSS.ELA-Literacy.RI.4.7 (fourth) Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
CCSS.ELA-Literacy.RI.5.7 (fifth) Draw on information from multiple print or digital sources, demonstrating the ability to locate and answer to a question quickly or to solve a problem efficiently.
CCSS.ELA-Literacy.RI.4.9 (fourth), and 5.9 (fifth) Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Writing:

Text Types and Purposes:
CCSS.ELA-Literacy.W.3.2 a (third) Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
CCSS.ELA-Literacy.W.4.2 a (fourth) Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
CCSS.ELA-Literacy.W.5.2 a (fifth) Introduce a topic clearly, provide a general observation and focus, and group related information logically, include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

Production and Distribution of Writing:
CCSS.ELA-Literacy.W.3.6 (third), 4.6 (fourth), and 5.6 (fifth) With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

Research to Build and Present Knowledge:
CCSS.ELA-Literacy.W.3.7 (third) Conduct short research projects that build knowledge about a topic.
CCSS.ELA-Literacy.W.4.7 (fourth) Conduct short research projects that build knowledge through investigation of different aspects of a topic.
CCSS.ELA-Literacy.W.5.7 (fifth) Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

Language:

Conventions of Standard English:
CCSS.ELA-Literacy.L.3.2 (third), 4.2 (fourth), and 5.2 (fifth) Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Next Generation Science Standards (NGSS):

Disciplinary Core Idea Progression:

Life Science Progression (LS1.A): Organisms have both internal and external macroscopic structures that allow for growth, survival, behavior, and reproduction.
Life Science Progression (LS1.B): Reproduction is essential to every kind of organism. Organisms have unique and diverse life cycles.
Life Science Progression (LS1.C): Food provides animals with the materials and energy they need for body repair, growth, warmth, and motion. Plants

acquire material for growth chiefly from air, water, and process matter and obtain energy from sunlight, which is used to maintain conditions necessary for survival.

Life Science Progression (LS1.D): Different sense receptors are specialized for particular kinds of information; Animals use their perceptions and memories to guide their actions.

Life Science Progression (LS2.A): The food of almost any animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants, while decomposers restore some materials back to the soil.

Life Science Progression (LS2.D): Being part of a group helps animals obtain food, defend themselves, and cope with changes.

Physical Science Progression (PS3.D): Energy can be "produced," "used," or "released" by converting stored energy. Plants capture energy from sunlight, which can later be used as fuel or food.

Procedure:

- Ask your class which ecosystem they would like to learn about from other students anywhere in the world.
- Contact a teacher in that region where the ecosystem is located in the world.
- Make colored copies of your students' books and send them off to the school. If you can, scan them and send electronically (save paper).
- Ask the teacher at that school to disseminate your students' books to his/her students, having students choose a book of interest to them.
- Ask the teacher at that school to have his/her students write a 'pen pal' letter to the student whose book they read. The letter should also answer the questions at the back of the book and provide constructive feedback and/or positive comments.
- The teacher will then ask his/her students to construct an ecosystem book for your students.
- Ask the teacher to send colored copied of the books back to you, or even better, have him/her scan the books to your class; you can view them electronically.
- Now, your class will write 'pen pal' letters to these students. Again, these letters should answer the students' questions at the back of their books and also provide constructive feedback.
- This is a fun and highly interactive project. Be patient with it. It takes time and care to complete this process.

Rating Activity 3

Teachers:
Teachers rating Activity 3 for effectiveness in helping students learn ____

1 not helpful! 2 a little bit helpful 3 helpful 4 very helpful 5 Wow!

Teachers rating Activity 3 for level of enjoyment _____

1 not fun! 2 a little bit fun 3 fun 4 very fun 5 Wow!

Students:
Students rating Activity 3 for helping you learn _____

1 not helpful! 2 a little bit helpful 3 helpful 4 very helpful 5 Wow!

Students rating Activity 3 for level of enjoyment _____

1 not fun! 2 a little bit fun 3 fun 4 very fun 5 Wow!