

## Unit 9 – Reading About Science and Living Like Scientists!

*May*

In this unit, we imagine that your children will be making a lot of connections across their reading and writing work. They'll be *reading to learn* in the reading workshop, and *writing to teach* in the writing workshop. In the content writing unit that aligns with this one, we describe a variety of writing genres through which your students will convey ideas and information and they may, for example, write in essay, poem, or nonfiction picture book form. In reading, they'll be gaining knowledge and constructing ideas. They'll also be reading as writers, looking closely at author's craft and thinking about structures and techniques that other authors use that youngsters can emulate. You'll need to gather baskets of texts, as you did for the November nonfiction reading unit. The difference this time is that you'll probably have an overarching theme or area of study that the whole class is studying, such as Plant Diversity.

You'll need to decide whether content area reading consumes the entire reading workshop or if your children maintain independent reading lives alongside this reading. Of course, your interest in supporting nonfiction and content-related reading cannot jeopardize children's reading lives, so if you do not have enough high-interest, just-right texts related to the content under study to keep your children "in books" for the entire month, then be sure you keep their independent reading work alive

It will be important to gather a variety of texts around the shared topic. Visit our website (<http://rwproject.tc.columbia.edu/>) for some links to vendors such as Booksource, as well as websites like [www.zoobooks.com](http://www.zoobooks.com) that provide texts related to science. Make baskets in which you group texts that go together. For instance, you might have enough books for a basket on life cycles, carnivorous plants, plants we eat, seeds, and so on.

You'll probably start with a read aloud that you think will be particularly engaging, and that will introduce the big concepts and vocabulary of your study. You might even consider starting your unit with some video clips like the Magic School Bus video about seeds. You may actually revisit this same text or video several times throughout the unit, showing children how much more they can get out of each successive reading, or viewing, of that text. Kylene Beers argues that repeated reading is incredibly valuable for readers. You'll want to harvest key ideas and terms from your read alouds, and begin to create graphs, charts, or diagrams that will support your readers' content knowledge.

Once your children know *what* they will be studying, give them a chance to browse the library to become familiar with texts that are available. Let them look at the variety of baskets you've put together baskets and notice the big categories for this study. Invite children to look within the basket they've chosen, teach them that researchers read first, asking: 'What is there to know about this subject?' You can also form several baskets but intentionally leave a couple empty ones, and leave a lot of books loose as well. Either way, children can first browse a bit, gathering background information such as the big concepts and vocabulary. Keep the word chart in the room, and perhaps even have children keep glossaries in their notebooks.

You'll be emphasizing strategies for reading to learn. Teach children to choose the easier texts first, in order to build background knowledge. Then they can use this knowledge to approach the next level of text. Dick Allington shows that readers *will teach themselves* to read nonfiction if they find the subject fascinating, and if they have access to texts they can actually read. Do some book talks and storytelling that makes your texts fascinating, and model being an avid learner who loves to read to learn. Encourage readers to jot key vocabulary, big ideas as they read and use what they jot during partner conversations and/or to support their writing projects.

Remind your children to use the strategies they know for monitoring and fixing comprehension. For example, you'll want to spend some time re-teaching that careful non-fiction readers always try to put what they've read into their own words. You can demonstrate by reading a passage from a read-aloud text, then putting the text down and saying, "What the author is saying is that..." Or "What this means is..." It's important that children have strategies for articulating what they learn in their own words. Not only will it help them retain information longer, it will also encourage them to internalize what they learn.

And you will want to return to some nonfiction reading strategies you taught in February. Assess the children to determine which skills they need more support with and spend time re-teaching them. You may discover that your children need help with determining the main idea of a passage. Teach children to read the first sentence of a paragraph and ask, "What is this saying?" Then they can read on, sentence by sentence, asking, "How does this fit with what's been said so far?" To find the main idea, readers need to take the sentences they've read and say what they learned in one short statement, not a question. Teach children to chunk the text using the subheadings or section headings. At the end of each chunk, they'll profit from covering the text and saying (or writing on a post-it), "This part teaches me..." and then: "It teaches me by giving examples or evidence such as..."

We can support kids in determining the main idea also by teaching them to notice the "Who" and the "What" of the paragraph or section. This helps readers identify the subject and the central action as they read. To find the main idea, readers need to figure out the relationship between the "Who" and the "What."

Readers can move from finding a section's main idea to determining the selection's overarching by noticing as they read from one paragraph to another whether the two paragraphs continue to build on one main idea. Does the second paragraph turn a bend, laying out yet another idea? Nonfiction texts can be tricky because section dividers are often invisible; readers need to be vigilant, reading in such a way that they notice when the text has gone through a transition and saying, "Oh, this is about a new sub-topic." Of course, once readers can ascertain what a chunk as small as a paragraph is mostly about, they'll benefit from looking back on the whole page or the whole chapter and saying, "*This* whole text is mostly about. . ."

When children study a science topic, it's possible that they'll be reading nonfiction poetry, such as poems about animals and insects by Douglas Florian. You'll want to teach children how to discern between the information in these poems and the clever poetic license that he has taken.

You'll want to help children develop ideas and opinions about the texts they read, understanding that all texts are written from a particular perspective and that it's okay and often productive to critique content-area texts by thinking, "What is the author trying to get me to think, feel and know about this subject and who benefits from me thinking this way?" For instance, children might notice that within the basket titled "Ocean Animals" there is a book called *Amazing Sharks* and another called *Dangerous Sharks*. They might read both, thinking about what the author is wants them to think or believe about the topic, and noticing the kinds of information the author includes to fit with this idea.

You may also want kids to engage in some role-playing activities, continuing some of the work you did earlier in the year infusing drama with reading, so they gain a broader picture of the events, issues, and experiences around a topic. They can act out how a Venus Fly Trap first traps an insect visitor and then squeezes the guts from it before it can use it as food.

Meanwhile, you will help children to synthesize larger overarching ideas and themes. Here it's useful to teach kids to ask different types of questions to deepen their comprehension of content-area texts, such as "How does this information fit with what I already know about this topic?" or "How can I organize this information so I understand how all the details connect?"

You can also teach children how to formulate their own inquiry-based questions that allow them to delve more deeply into text, just like they question what they're learning about during Science Workshop. As children read across books about a topic, they may also begin to make connections between texts and formulate questions about their topics that spur on new purposes for their reading. You'll want to help them extend their thinking about a topic by growing thoughts as they gather information. As a reader relates a fact she gleaned from the text, you'll want to teach her to think about the topic in depth by naming the fact and adding her own thoughts. For example, after reading a chunk of text, a child might say something like, "Hmm. I learned that plants help to cool the earth and provide oxygen for living creatures." Teach her to say what passage makes her think. She may add, "That sounds pretty important. I wonder why people don't take better care of them." What she's done is she has taken a fact from the text and put her own idea or preconception alongside. Another way to do this is to stretch the idea from the book. That might sound something like, "Plants cool the earth and provide oxygen. Hmm. That means when we clear-cut forests, we're not just hurting the creatures in the forest. We're hurting human beings, too." Throughout the unit, there will be a particular emphasis on helping students talk about their findings and their ideas with partners or club.

Teach children to layer texts and to read them against each other, asking: "What did I learn in this text that I already know from another text? What did I learn that is new?"

What new questions do I have?” You’ll have to coach your readers, as well, in using writing to hold onto ideas and information. They probably want to keep Post-its while they read, and then close the text and write summaries and reflections in their notebooks. They can also do descriptive writing of the visuals.

At some point, children will decide what they will be writing about, and their reading can begin to be influenced by this lens. They can read, and reread, gathering material for what they will be teaching. They can also look at the texts they are reading with the lens of mentor texts, asking themselves if there is any craft they want to borrow. Teach them to look at how the piece is structured, or how the writers tell stories, or give specific examples, or make comparisons, so they can do this work in their writing. More advice for reading like a writer can be found in the correlating writing curriculum calendar.