**Ecosystems and Narrative Writing**- 5th grade example using Calkins’ Writers Workshop to embed science concepts within a narrative’s context to show application of knowledge

**Rationale:**

Teachers are often stretched for time and are looking for ways to integrate science within other, core subjects. Below is an example of how Writer’s Workshop was incorporated within a fifth grade science unit to cover writing standards, but also NGSS and CCSS RI and L standards.

This writing assignment occurred after students studied ecosystems and had some background knowledge as to what comprised one, how it could be affected, etc.

**Standards addressed included (but are not limited to):**

**CCSS RI Standards**:

[CCSS.ELA-LITERACY.RI.5.4](http://www.corestandards.org/ELA-Literacy/RI/5/4/)

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.

[CCSS.ELA-LITERACY.RI.5.7](http://www.corestandards.org/ELA-Literacy/RI/5/7/)

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

[CCSS.ELA-LITERACY.RI.5.9](http://www.corestandards.org/ELA-Literacy/RI/5/9/)

Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

**CCSS W Standards:**

[CCSS.ELA-LITERACY.W.5.3](http://www.corestandards.org/ELA-Literacy/W/5/3/)

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

**CCSS L Standards:**

[CCSS.ELA-LITERACY.L.5.2.E](http://www.corestandards.org/ELA-Literacy/L/5/2/e/)

Spell grade-appropriate words correctly, consulting references as needed.

[CCSS.ELA-LITERACY.W.5.3.C](http://www.corestandards.org/ELA-Literacy/W/5/3/c/)

Use a variety of transitional words, phrases, and clauses to manage the sequence of events.

**NGSS:**

#### LS2.A: Interdependent Relationships in Ecosystems: What are things that can affect/disrupt an ecosystem? (pollutants/invasive species)

Crosscutting Concepts: Cause/Effect

**Procedure:**

Students are asked to choose something that might interrupt/negatively affect an ecosystem and then conduct research. An [organizer template](https://drive.google.com/file/d/1OlUxAnn_R56NVNXvqH3J9ksD3pkDrESb/view?usp=sharing) is provided, to help students sort information.

An essential question to help students understand the purpose: Why do we need to do research before we write? We need to know about what we’ve chosen and how it may interrupt an ecosystem, so that we understand how we can use our imaginations to write a narrative from its point of view.

**Research questions to help guide students:**

What is it?

How does it get there?

How does it affect an ecosystem? Give examples.

Are there solutions to this problem? What are they?

Organizer template: file:///home/chronos/u-aea02298675561f41b6f8f0b1cb323b237d40bae/Downloads/Ecosystem%20Interrupter-organizer%20for%20ideas.pdf

After conducting research, students write a narrative from the perspective of being an “ecosystem interrupter” (pollutant, invasive species, etc.). Students should understand who they will “become” in their narrative. From there, mini-lessons about narrative writing are provided, taking the students through the writing process. Students integrate the research knowledge within their story, to show their understanding of how their subject affects an ecosystem.

Writing Workshop Mini-lessons may include (with supporting anchor charts in Calkins’ materials):

-Writing a strong lead

-Writing with our 5 senses: how do we use words to help our reader understand the experience?

-Show, don’t tell

-Telling the story from inside it: Telling a story through a narrator’s eyes means keeping a consistent **point of view** throughout the piece.

-Writers Make a Movie in the Reader’s Mind; Paragraphs with Purpose

-Writing for pacing of the reader/effect; Elaboration of small parts.

-Writers Use Feeling Words and Effective Endings

When using Calkins’ narrative writing materials, the lessons included in her manuals would need to be modified to fit the science topic of ecosystems, as well as the instructional needs of your students.

Below are examples of student work in a fifth grade classroom, done during the first quarter of the year. They are at varying levels of performance, in narrative craft and/or application of science knowledge.

Student samples:

[Oilette](https://drive.google.com/file/d/1prQvHGZrPPFoCJZJnDDAPgkc2wdNjpBA/view?usp=sharing)

[Emerald Ash Borer](https://drive.google.com/file/d/1KZ5fpsoG8zGR4dzFibJU4KU_wR7aTxqq/view?usp=sharing)

[Red Swamp Crayfish](https://drive.google.com/file/d/1a3K5eB_PRUvtpnJWR0ELVxWVS3rn1eSK/view?usp=sharing)

[Silver Carp](https://drive.google.com/file/d/1pPankeDWLx_10EgoT3EcXO7kx4LbPp2D/view?usp=sharing)