Common Core Standards

Informative Writing Performance Task

Teacher Version			
Grade	**4**	**Title/Subject**	**Pond Ecosystems**

The following sections are included in this Teacher Version:

• **Overview**
• **Process: Day 1, 2 and 3**
• **Teacher Directions for Scoring Rubric and Student Directions and Articles**

Overview

On Day 1 students will engage in a video viewing and a shared reading and note-taking activity using informative texts to learn about Pond Ecosystems. After the group activity, they will be directed to plan their writing. On Day 2 they will draft an informative writing piece about Pond Ecosystems utilizing the information they read in the texts as well as notes they took during the shared lesson. On Day 3 students will finish their drafts, revise and edit their writing, and if they choose, produce a final copy.

Process

DAY 1: Video Viewing, Shared Reading, and Note-taking: Up to 60 minutes

Step 1: Connect to Background Knowledge ~ 5 minutes

Provide an introduction to the classroom activity by indicating that after this activity, students will be writing an essay focused on the topic of Pond Ecosystems. Ask students to share orally what they might know about Pond Ecosystems. Possible questions could include:

"*What is a pond? What do ponds look like? What animals live in or near ponds? What else do you know about ponds?*"

For active engagement encourage pair or group sharing, before sharing out with whole group.

Step 2: Accessing the Information ~ 35 minutes

1. Explain: *"Now we will watch a video and read two sources about Pond Ecosystems."* Watch the video and read both sources, pointing out important facts and features (pictures, captions, etc.) Use ONLY the sources provided in this prompt packet.

2. Lead a whole class discussion about the sources, during which students generate a key word list, list the "gist" next to each paragraph, highlight important words/phrases, or participate in pictorial narrative input (large teacher-created drawing with labels).

3. Think-Pair-Share: *"Tell your partner what you learned about Pond Ecosystems."* Make sure both partners have time to share with each other.

   Have the class watch this video clip:

   https://www.youtube.com/watch?v=XEdIDWrfwFw

Step 3: Clarify Expectations for the Writing Task:

Explain: *"Now you will have a chance to look at the sources, plan, and write a draft to explain to me what you learned about Pond Ecosystems. Tomorrow you will have a chance to write a draft and the next day you will revise and edit your work to write a final revision."*

Review the student directions and checklist for the writing assignment and give each student a sheet of blank paper for planning and lined paper for writing.

Step 4: Planning for Writing: ~ 20 minutes

Tell students to begin planning their writing on the blank sheet of paper. You can remind them of planning strategies you have taught in your classroom such as outlining, lists, webs, or drawing. Don't provide a plan yourself just remind them of the strategies for planning.

Collect all materials from Day 1 after the 60 minutes total is complete.

DAY 2: Writing Up to 45 minutes

1. Allow students to access the sources, their notes, the classroom activity charts/key word lists, and their draft.

2. Students read the prompt, review their writing plan and draft their essays.

3. Remind students when 10 minutes remain to re-read their writing and check for missing information, or confusing sentences.

4. Collect all student writing materials.

DAY 3: Revising and Editing Up to 45 minutes

1. Students edit and write final revision of essay. Provide additional lined paper for revisions and final copies as needed. Students may have time to create a final copy, or may revise and edit from their draft as time allows.

2. At teacher discretion, students may use word processing for draft or revision as long as spelling and grammar correction tools have been disabled.

3. Inform students when 10 minutes remain.

4. Collect all student writing materials.

Teacher Directions for Scoring Rubric:

Student responses to Part 2 will be scored using the Common Core based Informative/Explanatory Writing Rubric. A score will be given in each of the three rubric categories. For grades 3-6, student **revisions** will be scored.

Each student's final scores should indicate a 1, 2, 3, or 4 in each of the three categories (no partial scores such as 2.5, 3+, etc.). A score of 3 or 4 in each category is considered a passing score and a total of 8 points or higher out of 12 total is considered a passing overall score.

The score for each of the three categories will be entered for each student into School City.

Informative/Explanatory

Common Core Standards
Informative Writing Performance Task

Grade	4	Informative/Explanatory Writing Rubric	
Level	**INFORMATIVE/EXPLANATORY WRITING**	**LANGUAGE CONVENTIONS**	**WITH GUIDANCE and SUPPORT FROM ADULTS**
4 Exceeds	☐ Meets all expectations set forth in 3 ☐ Document is well organized and connected with smooth transitions ☐ Both introduction and conclusion are clear and well stated ☐ Facts are well organized with appropriate details	**Mostly correct** use of language conventions, and some above grade level skills used, for example: ☐ Meets all expectations set forth in 3 ☐ Uses underlining, quotation marks, or italics for titles of works ☐ Recognizes and corrects inappropriate shifts in verb tense.	**Guidance & Support** Level of guidance and support from adults before writing: Check off what was done before the student wrote the piece being scored.
3 Meets	**INFORMATIVE/EXPLANATORY WRITING (W2)** ☐ Introduces topic clearly (W1a) ☐ Groups related information in paragraphs and sections (W2a) ☐ Includes formatting (headings, etc.), illustrations, and multimedia when they aid comprehension (W2a) ☐ Develops topic with facts, definitions, concrete details, quotations, or other information/examples related to the topic (W2b) ☐ Links ideas within categories of information using words/phrases such *another, for example, also, because* (W2c) ☐ Uses precise language and domain-specific vocabulary to inform/explain the topic (W2d) ☐ Provides a concluding statement or section related to the information/explanation presented (W2e) **WRITING PROCESS (W4-W8)** ☐ Uses clear and coherent writing in multi-paragraph texts that is appropriate to task, purpose, and audience (W4) ☐ **WGASFA*** Develops/strengthens writing by planning, revising, editing (W5) ☐ **WGASFA*** Uses a variety of digital tools to write and publish writing (W6) ☐ **WGASFA*** Can keyboard/ type a minimum of one page in a single sitting (W6) ☐ Takes notes, paraphrases, and categorizes information, and provides a list of sources (W8) ☐ Draws evidence from text (W9)	**Adequate** use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: ☐ Produces complete sentences, recognizing and correcting inappropriate fragments and run-ons (L1f) ☐ Correctly uses frequently confused words (e.g., *to, too, two; there, their*) (L1g) ☐ Writes fluidly and legibly in cursive or joined italics (L1h) ☐ Uses correct capitalization (L2a) ☐ Uses commas and quotation marks to mark direct speech and quotations from a text (L2b) ☐ Uses a comma before a coordinating conjunction in a compound sentence. (L2c) ☐ Spells grade-appropriate words correctly, consulting references as needed. (L2d) ☐ Chooses words and phrases to convey ideas precisely (L3) ☐ Chooses punctuation for effect (L3)	☐ Discussion ☐ Read aloud or shared reading ☐ Drawing ☐ Vocabulary word bank ☐ Shared or interactive writing ☐ Graphic organizer ☐ Language frames
2 Almost Meets	☐ Has clear topic but some facts are not well-developed ☐ May not write multi-paragraphs ☐ Has limited planning for writing ☐ Uses some linking words/phrases ☐ Has informal vocabulary or is not aligned with topic	**Limited** use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: ☐ Uses some punctuation correctly ☐ Uses some sentence variety correctly ☐ Spells most words correctly	
1 Does Not Meet	☐ Provides few details or facts ☐ Writes only single paragraph ☐ Has no planning for writing ☐ Copies sentences directly from text in articles in prompt	**Infrequent** use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: ☐ Has many words spelled incorrectly ☐ Has many errors in capitalization ☐ Writes few complete sentences or only simple sentences ☐ Has many errors or is missing punctuation	

- **WGASFA**: "with guidance and support from adults"

This rubric was adapted from rubrics at sbusd.org and information from Smarter Balanced Assessments (www.**smarterbalanced**.org) using the California Common Core Standards at www.cde.**ca**.gov.
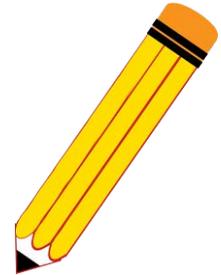
Smarter Balanced Assessment Consortium

Student Version			
Grade	**4**	**Title/Subject**	**Pond Ecosystems**

Student Prompt:

As you think about what you just read, write a multi-paragraph essay to explain to your teacher what you learned about Pond Ecosystems.

Writing Tips:

☐ Be sure to introduce the topic and group related facts together.

☐ Use facts from the two sources to develop your ideas.

☐ You may want to include definitions and illustrations to help your teacher clearly understand what you learned.

☐ End with a conclusion.

Reminders:

☐ You can look at the sources and your key word list to help you with your writing.

☐ You might begin by making a plan or drawing a graphic organizer help you with your thinking.

☐ Do not copy sentences from the sources.

Step 1: Plan

Plan: review the texts and your notes

☐ Make a plan on the blank paper for your writing.

Step 2: Draft

☐ Write a topic sentence with your main idea.

☐ Write sentences with several facts, definitions, and concrete details to develop points.

☐ Group information together as you write.

☐ Use linking words such as *also, another, and, more, but, another, for example, because* to connect ideas.

☐ Use precise language and domain-specific vocabulary to inform or explain your topic.

☐ Write a concluding sentence or paragraph.

☐ Provide a list of sources

|				**Student Version**
Grade	**4**	**Title/Subject**	**Pond Ecosystems**	

Step 3: Reread and Revise

☐ Does it make sense?

☐ Have you used science words from the text?

☐ Is there missing information you want to add?

Step 4: Edit

☐ Capitals at the beginning of sentences

☐ Capitals for proper nouns

☐ Punctuation: (end points) **. ! ?**

☐ Commas **,** quotation marks **" "**

☐ Spelling

☐ Complete sentences (avoid fragments and run-ons)

Step 5: Final Draft

☐ Recopy and fix your mistakes.
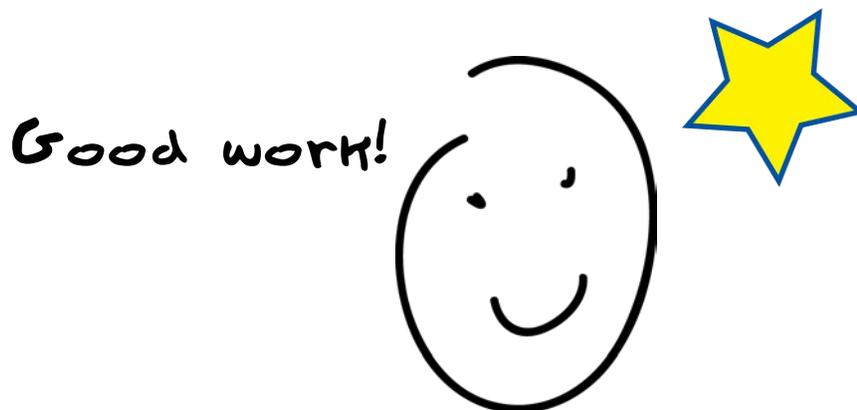
Good work!

			Student Reading Text
Grade	4	Title/Subject	Pond Ecosystems Article 1

caryinstitute.org

Cary Institute of Ecosystem Studies — Changing Hudson Project

Pond Ecosystem

An ecosystem is a dynamic complex of plant, animal, and microorganism communities and the nonliving environment, interacting as a functional unit. Remember that the organisms living in an ecosystem are broken down into categories: producers, consumers, and decomposers.

A pond is a quiet body of water that is too small for wave action and too shallow for major temperature differences from top to bottom. It usually has a muddy or silty bottom with aquatic plants around the edges and throughout. However, it is often difficult to classify the differences between a pond and a lake, since the two terms are artificial and the ecosystems really exist on a continuum. Generally, in a pond, the temperature changes with the air temperature and is relatively uniform. Lakes are similar to ponds, but because they are larger, temperature layering or stratification takes place in summer and winter, and these layers turnover in spring and fall.

Ponds get their energy from the sun. As with other ecosystems, plants are the primary producers. The chlorophyll in aquatic plants captures energy from the sun to convert carbon dioxide and water to organic compounds and oxygen through the process of **photosynthesis**. Nitrogen and phosphorus are important nutrients for plants. The addition of these substances may increase primary productivity. However, too many nutrients can cause algal blooms, leading to eutrophication (Read Ponds & Eutrophication for more information).

Producers

- **Phytoplankton**, literally "wandering plants," are microscopic algae that float in the open water and give it a green appearance. They carry out photosynthesis using carbon dioxide that is dissolved in the water and release oxygen that is used by the bacteria and animals in the pond. Phytoplankton are not actually plants-they are protists!

- **Periphytic algae** are microscopic algae that attach themselves to substrates and give the rocks and sticks a greenish brown slimy appearance. They also carry out photosynthesis and produce oxygen, often near the bottom of the pond where it can be used by decomposers.

- **Submerged plants** grow completely under water

- **Floating plants** include plants that float on the surface and plants that are rooted on the bottom of the pond but have leaves and/or stems that float.

- **Emergent plants** are rooted in shallow water but their stems and leaves are above watermost of the time.

- **Shore plants** grow in wet soil at the edge of the pond.

Consumers

- **Zooplankton** are microscopic animals that eat phytoplankton or smaller zooplankton. Some are single-celled animals, tiny crustaceans, or tiny immature stages of larger animals. Zooplankton float about in the open water portions of the pond and are important food for some animals.

- **Invertebrates** include all animals without backbones. Macroinvertebrates are big enough to be seen with the naked eye. Some of them are only found in clean water.

- **Vertebrates** are animals with backbones. In a pond these might include fish, frogs, salamanders, and turtles.
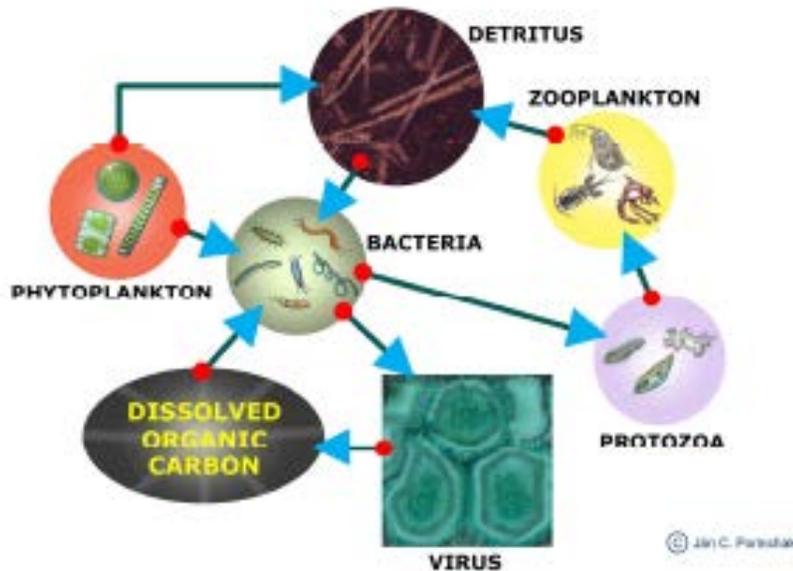
Decomposers

Animal waste and dead and decaying plants and animals form **detritus** on the bottom of the pond. **Decomposers**, also known as **detritovores,** are bacteria and other organisms that break down detritus into material that can be used by primary producers, thus returning the detritus to the ecosystem. As this material decomposes it can serve as a food resource for microbes and invertebrates. During decay microbes living ondetritus can pull nutrients from the overlying water thus acting to improve water quality. In the process of breaking down detritus, decomposers produce water and carbon dioxide.

What is an ecosystem?

An ecosystem is a complex set of relationships among the living resources, habitats, and residents of an area. It includes plants, trees, animals, fish, birds, microorganisms, water, soil, and people.

Ecosystems vary greatly in size and the elements that make them up, but each is a functioning unit of nature. Everything that lives in an ecosystem is dependent on the other species and elements that are also part of that ecological community. If one part of an ecosystem is damaged or disappears, it has an impact on everything else.

When an ecosystem is healthy, scientists say it is sustainable. This means that all the elements live in balance and are capable of reproducing themselves. There is usually biodiversity, meaning that there are a variety of living organisms and species in that environment.

Pond Ecosystems

Plants have a very important job in a pond ecosystem. They are the producers. Producers make food for all the creatures living there. Animals are consumers. Examples of consumers that are herbivores and live in pond ecosystems are water fleas and snails. Omnivores, such as turtle, are also consumers that live in ponds. Carnivores make up a third group, including most frogs and some fish. They eat only other animals.

Decomposers are organisms that eat rotting plants or remains of dead animals in the pond. As they do this, important nutrients are released from the dead matter. Plants absorb these nutrients.

POND ECOSYSTEM

Sunlight — Rushes — Heron — Rushes — Frog — Water Lily — Water Lily — Small Fish — Large Fish — Insect — Magnified View of Green Algae — Magnified View of Bacteria