Animal Habitats Informational Performance Task

Task:
Your science club is learning about animals and how they survive. You have been chosen to write an article in a newsletter about how animals live in different types of environments. Before you decide what animals you will write about, you do some research and find two articles that provide information about animals that live in different environments.

After you have looked at these sources, you will answer some questions about them. Briefly scan the sources and the three questions that follow. Then, go back and read the sources carefully to gain the information you will need to answer the questions and write an informational article for the newsletter.

In Part 2, you will write an informational article using information you have read.

Directions for Beginning:
You will now look at two sources. You can look at either of the sources as often as you like.

Research Questions:
After looking at the sources, use the rest of the time in Part 1 to answer three questions about them. Your answers to these questions will be scored. Also, your answers will help you think about the information you have read and looked at, which should help you write your informational article.

You may click on the buttons to look at the sources when you think it would be helpful. You may also look at your notes. Answer the questions in the spaces below them.

Part 1

Sources for Performance Task:

Source #1
This article about creatures living in harsh environments is based on information in the following sources:

- http://www.seaworld.org/animal-info/info-books/polar-bear/behavior.htm
- http://www.poseidonresorts.com/poseidon_main.html
It's a Cold (Hot, Dry, Dark) Cruel World!
by Dawn Baertlein

The world can be tough for living creatures. Weather can be very hot or very cold. At the bottom of the sea, it is dark as night. In the desert, the air is dry. When people live where it is cold or hot or dark or dry, they use tools. They build special homes. Wild animals and plants live without tools. They do it on their own—with a little help from nature. The different places animals live and plants live in around the world are called environments.

Near the South Pole, in Antarctica, the weather is very cold. In winter, you might not see much of the sun all winter. It can be as cold as minus 128 degrees Fahrenheit. Water freezes at 32 degrees, so Antarctica is much colder than ice. Scientists live at the South Pole. But they live in buildings with thick walls and heating. What do animals do?

Some animals have bodies that help them live in the cold. The ice fish lives in water so cold that even in summer, chunks of ice float here and there. Somehow the ice fish keeps from freezing entirely. Ice fish have a special protein in their blood. This protein keeps ice crystals from forming inside their bodies. They can keep swimming through layers of ice.

Penguins, polar bears, and whales have thick layers of fat, or blubber, that keeps them warm. These animals also have tricks to keep warm. Penguins cuddle up to share their body heat. The penguins at the outer edge of the huddle block the cold wind for the ones in the middle. Polar bears dig dens in the snow. Safe from icy winds, the bears sleep through the winter. Whales don’t cuddle or dig dens. But they can swim far away to warm waters.

Deserts are very dry and hot during the day. Some desert people have houses with air-conditioners. They carry bottles of water. Some wear special clothes. Others set up tents to protect them from the sun. In the desert, people must dig deep wells to find water. How do animals survive?

Many desert animals only come out at night when it’s cool. Snakes, lizards, mice, and squirrels live in burrows. During the day, they stay under the ground and out of the sun.

In the Sonoran Desert of Arizona, the little elf owl lives inside a tall saguaro cactus. The cactus has natural air-conditioning. The cactus is full of water. Rain doesn’t fall often in the Sonoran Desert, but when it does, it pours. Many inches of rain fall in a short time. Then the water quickly flows away. The saguaro cactus has roots that spread out to the surface of the soil. The roots are like a big sponge. They soak up rainwater fast. The cactus stores the water for months. Because the cactus walls are full of water, the elf owl has a nice cool home.

The ocean is the opposite of the desert. But the deepest part of the ocean can be a tough place to live. Some animals live almost seven miles below the surface of the sea. Near Japan, the
Mariana Trench is so deep that there is no light. The sun can’t shine through the layers of water. Some sea animals even glow in the dark.

Where it is dark, it is also cold. It’s very cold down at the bottom of the Mariana Trench. But it is warm near the thermal vents.

Thermal vents are like little volcanoes under the sea. The water coming out of the vents is very hot. Only the cold seawater keeps it from boiling. Crabs scurry around in the warm water near the vents. These crabs can live to be a hundred years old. The crabs have found a way to live—and stay warm—even at the bottom of the cold, deep, dark sea.

Arctic chill, desert sun, pitch-dark ocean—these are harsh conditions that would be difficult for people to survive. But nature gives plants and animals the ability to live almost anywhere.

**Source #2**

This article about different types of ecosystems is based on information in the following sources:

- “Population Ecology” by Melissa Salpietra, copyright © NOVA, PBS, 2.24.09
- http://j.mp/OF9PNY “Ecosystems, Biomes, and Habitats” The Franklin Institute
- http://on.doi.gov/vm1ez4
- “Our Imperiled Oceans: Victory at Sea” by Christopher Pala, copyright © Smithsonian magazine, September 2008.
- “Sunken Shipping Containers Form Artificial Reefs” Earth.org, October 2011.

**Don’t Step in that Ecosystem!**

by Courtney Duke

The next time you go out, take a careful look around. Maybe it’s raining, and you can see a big puddle. Plants might be growing in it. Birds might take baths in it. And if you’re lucky, the puddle might even be a home to tadpoles.

Any place where plants and animals live together is an ecosystem. An ecosystem can be huge, like a desert or the ocean. But it can also be as small as a puddle.

A living thing can be an ecosystem, too. Picture an oak tree in the forest. Bugs and birds make cozy homes in its bark and branches. Squirrels nest in its trunk.

Every few years, this oak tree grows acorns. When the acorns are ripe, they fall to the forest floor. These rich nuts are good food. Mice and deer eat the acorns to fatten up for the winter.
Mice save acorns. Then they have food in the cold winter months. In the spring, hawks swoop down, looking for a mouse meal.

All living things are connected to each other in an ecosystem. In a way, the oak tree helps the hawk find its food. The mice don’t eat all the acorns. Some will get covered in dirt. They get water from rain. They can grow up to be ecosystems too.

Now think of the ocean. Imagine diving into the blue water. Near the surface, you see a rocky ridge of coral. This is a coral reef. The reef is home to many plants and animals. Sea plants sway in the current. Fish come to feed or to hide from predators. Coral reefs are home to one-quarter of all the fish in the sea. Reefs also draw birds, whales, turtles, and seals. This makes the reef ecosystem one of the most important in the world. Ecosystems form in all kinds of ways. Even people make ecosystems, though we don’t always mean to. Think of a big ship crossing the ocean. On its deck are huge metal boxes. During a storm, one of the boxes washes overboard and sinks to the bottom of the sea.

The box becomes part of the ecosystem there. Crabs climb into it. A barnacle may attach to the side. Then an anemone attaches there too. A curious octopus comes to hunt shellfish. It eats the shellfish. Then it swims away, leaving empty shells behind. A hermit crab crawls over to find a new shell to live in. Over time, lots of anemones grow on the box. Anemones look like plants. They have tentacles, or waving arms. Schools of tiny fish swim through the waving arms. Bigger fish chase the tiny fish. Seals come to hunt for fish dinners. Eventually, even more animals come. The box is now its own ecosystem.

Ecosystems are everywhere. New ones form all the time. You might see an ecosystem when you least expect it.
During your review of the sources, you learn that plants and animals have the ability to live almost anywhere because of nature. Provide at least one piece of evidence from each source to support this claim.

Type your answer in the space provided.

A two-point response provides two pieces of evidence, one from each source, to support the claim that plants and animals have the ability to live almost anywhere. Responses are not scored for grammar usage, conventions, spelling, or punctuation.

Sample Two-Point Response:

- Animals can live in very different environments. Ice fish can live in cold water because of the proteins in their blood. Other animals, like polar bears, have layers of fat that keep them warm. In hot places, animals like elf owls and snakes find places that are naturally cooler. The second source says that mice save up acorns to eat during the winter. A one-point response provides one or two pieces of evidence from only one source.

Sample One-Point Response:

- Source 1 tells how animals like polar bears can survive even in very cold weather. The polar bears dig dens to stay warm. Then they can sleep all through the winter.

A response that does not provide any relevant evidence receives no credit.

Sample Zero-Point Response:

- Animals live in all different parts of the world.
Which topic can be found in both sources?

A. Many types of living creatures live in every ecosystem.
B. Animals are able to live in places with extreme heat or cold.
C. It is important for humans to help living creatures survive in unusual places.
D. Animals can survive extreme hot or cold by learning to help other animals in their groups.

The correct response, option B, receives a score of 1 point.
Which source would be most helpful in supporting the idea that animals live differently than people in some very difficult places on earth? Provide at least two pieces of evidence from the source to support your answer.

Type your answer in the space provided.

A two-point response may identify Source 1 but provides two pieces of evidence to support the claim from the source stating that animals live differently than people in some very difficult places on earth. Responses are not scored for grammar usage, conventions, spelling, or punctuation.

**Sample Two-Point Response:**

- Source 1 compares the way people and animals live in Antarctica. People live in homes with thick walls and heat. But whales and polar bears have blubber to keep them warm. In hot places, people may have air conditioning or tents. They can dig wells to find water. But some animals only come out at night when it’s cooler.

A one-point response identifies the correct source but provides only one piece of evidence.

**Sample One-Point Response:**

- The first source describes how humans and animals live differently in very cold parts of the world. People can heat their houses, but penguins have to cuddle up to share their body heat.

A response that does not identify the correct source or include relevant evidence receives no credit.

**Sample Zero-Point Response:**

- Animals are tougher than people. They have to live without houses.
Student Directions for Part 2

You will now look at your sources, take notes, and plan, draft, revise, and edit your article. Now read your assignment and the information about how your informational article will be scored; then begin your work.

Your assignment:
You are in the science club at school. Write an article that is several paragraphs long for the club's newsletter in which you explain how animals survive in different, and sometimes difficult, environments. Your article will be read by other students, teachers, and parents. Make sure to have a main idea, clearly organize your article, and support your main idea with details from the sources using your own words. Be sure to develop your ideas clearly.

REMEMBER: A well-written informational article:
- has a clear main idea
- is well-organized and stays on the topic
- has an introduction and conclusion
- uses transitions
- uses details from the sources to support your main idea
- develops ideas clearly
- uses clear language
- follows rules of writing (spelling, punctuation, and grammar)

Now begin work on your informational article. Manage your time carefully so that you can

1. plan your article
2. write your article
3. revise and edit the final draft of your article

Word-processing tools and spell check are available to you.

For Part 2, you are being asked to write an article that is several paragraphs long. Type your response in the box below. The box will get bigger as you type. Remember to check your notes and your prewriting/planning as you write and then revise and edit your article.
# 4-Point

**Informative-Explanatory**

Performance Task Writing Rubric (Grades 3-5)

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<tr>
<th>Score</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>NS</th>
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| **Purpose/Organization** | The response has a clear and effective organizational structure, creating a sense of unity and completeness. The response is fully sustained, and consistently and purposefully focused: | The response has an evident organizational structure and a sense of completeness, though there may be minor flaws and some ideas may be loosely connected. The response is adequately sustained and generally focused: | The response has an inconsistent organizational structure, and flaws are evident. The response is somewhat sustained and may have a minor drift in focus: | The response has little or no discernible organizational structure. The response may be related to the topic but may provide little or no focus: | - Unintelligible  
- In a language other than English  
- Off-topic  
- Copied text  
- Off-purpose |
<p>|       | - controlling or main idea of a topic is clearly communicated, and the focus is strongly maintained for the purpose, audience, and task | - controlling or main idea of a topic is clear, and the focus is mostly maintained for the purpose, audience, and task | - controlling or main idea of a topic may be somewhat unclear, or the focus may be insufficiently sustained for the purpose, audience, and task | - controlling or main idea may be confusing or ambiguous; response may be too brief or the focus may drift from the purpose, audience, or task | |
|       | - consistent use of a variety of transitional strategies to clarify the relationships between and among ideas | - adequate use of transitional strategies with some variety to clarify the relationships between and among ideas | - inconsistent use of transitional strategies and/or little variety | - few or no transitional strategies are evident | |
|       | - effective introduction and conclusion | - adequate introduction and conclusion | - introduction or conclusion, if present, may be weak | - introduction and/or conclusion may be missing | |
|       | - logical progression of ideas from beginning to end; strong connections between and among ideas with some syntactic variety | - adequate progression of ideas from beginning to end; adequate connections between and among ideas | - uneven progression of ideas from beginning to end; and/or formulaic; inconsistent or unclear connections between and among ideas | - frequent extraneous ideas may be evident; ideas may be randomly ordered or have an unclear progression | |</p>
<table>
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<tr>
<th>Score</th>
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<td>The response provides thorough and convincing support/evidence for the controlling idea and supporting idea(s) that includes the effective use of sources, facts, and details. The response clearly and effectively elaborates ideas, using precise language: • comprehensive evidence from sources is integrated; references are relevant and specific • effective use of a variety of elaborative techniques* • vocabulary is clearly appropriate for the audience and purpose • effective, appropriate style enhances content</td>
<td>The response provides adequate support/evidence for the controlling idea and supporting idea(s) that includes the use of sources, facts, and details. The response adequately elaborates ideas, employing a mix of precise and more general language: • adequate evidence from sources is integrated; some references may be general • adequate use of some elaborative techniques • vocabulary is generally appropriate for the audience and purpose • generally appropriate style is evident</td>
<td>The response provides uneven, cursory support/evidence for the controlling idea and supporting idea(s) that includes uneven or limited use of sources, facts, and details. The response elaborates ideas unevenly, using simplistic language: • some evidence from sources may be weakly integrated, imprecise, or repetitive; references may be vague • weak or uneven use of elaborative techniques; development may consist primarily of source summary • vocabulary use is uneven or somewhat ineffective for the audience and purpose • inconsistent or weak attempt to create appropriate style</td>
<td>The response provides minimal support/evidence for the controlling idea and supporting idea(s) that includes little or no use of sources, facts, and details. The response is vague, lacks clarity, or is confusing: • evidence from the source material is minimal or irrelevant; references may be absent or incorrectly used • minimal, if any, use of elaborative techniques • vocabulary is limited or ineffective for the audience and purpose • little or no evidence of appropriate style</td>
<td>• Unintelligible • In a language other than English • Off-topic • Copied text • Off-purpose</td>
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*Elaborative techniques may include the use of personal experiences that support the controlling idea.
## 2-Point
Informative-Explanatory
Performance Task Writing Rubric (Grades 3–5)

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<th>Score</th>
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|       | The response demonstrates an adequate command of conventions:  
- adequate use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling  
|       | The response demonstrates a partial command of conventions:  
- limited use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling  
|       | The response demonstrates little or no command of conventions:  
- infrequent use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling  
|       | • Unintelligible  
|       | • In a language other than English  
|       | • Off-topic  
|       | • Copied text  
|       | (Off-purpose responses will still receive a score in Conventions.) |

### Holistic Scoring:

- **Variety:** A range of errors includes formation, punctuation, capitalization, grammar usage, and spelling
- **Severity:** Basic errors are more heavily weighted than higher-level errors.
- **Density:** The proportion of errors to the amount of writing done well. This includes the ratio of errors to the length of the piece.