Performance Task: Water Quality Monitoring

Water Quality Volunteer

PART 1: Research

Student Directions:

Your Assignment:

Congratulations! Your school has been selected to participate in a water quality monitoring service project that will provide important information to area scientists who are monitoring the health of our local environment. To participate in this important work, you will need to write an informational essay explaining the What, Why and How of water monitoring. Use information from the videos and the article to write your essay.

Steps You Will Follow:

To plan and write your essay, you will do all the following:

1. Watch two videos.
2. Read an article.
3. Answer three questions about the reading and the videos.
4. Plan and write your essay.

Directions for Beginning:

You will now watch the videos and read the article about water quality monitoring. Take notes because you will want to refer to your notes while answering the three research questions and writing your essay. You may refer to any of the sources as often as you like.

Source Information:

Source #1: **Video:** Four Mile Run Stream Water Testing--- 6:06
https://www.youtube.com/watch?v=nDoCHqM-1GU&feature=youtu.be

Source #2: **Video:** Marine Flight Program: Water Quality Monitoring--- 3:34
https://www.youtube.com/watch?v=29gokYmTz_g&feature=youtu.be

Source #3: **Article:** Water Quality Monitoring
Adapted from Southwest Florida Water Management District publication

Note Taking Tool Water Quality Monitoring Task

Source	What water quality monitoring Is	Why water quality monitoring is important	How we monitor water quality
Video #1: Four Mile Stream Water Testing, Virginia			
Video #2: Marine Flight Program, Puget Sound			

Note Taking Tool Water Quality Monitoring Task

Source	What water quality monitoring Is	Why water quality monitoring is important	How we monitor water quality
Article: Water Quality Monitoring			

The Importance of

WATER QUALITY MONITORING

Every living thing on earth needs water to survive. Human bodies are made up of more than 60 percent water! We use clean water to drink, grow crops for food, operate factories, and for swimming, surfing, fishing and sailing. Water is vitally important to every aspect of our lives. Monitoring the quality of surface water will help protect our waterways from pollution. Farmers can use the information to help better manage their land and crops. Our local, state and national governments use monitoring information to help control pollution levels. We can use this information to understand exactly how we impact our water supply and to help us understand the important role we all play in water conservation.

Water Quality Pollutants

It is important to remember that you cannot tell very much about the quality of water simply by looking at it. Most pollutants are invisible to the naked eye. There are four major types of pollutants that affect water quality. Let's take a look at each type.

Dirt

Rain can wash dirt into rivers and streams. The dirt can smother tiny organisms and kill fish eggs clinging to rocks on the riverbed. Dirt can also clog gills and suffocate fish. Too much dirt in a water body can block sunlight that plants use to grow and make food in a process called photosynthesis. If plants don't get sunlight to grow, not only do the plants die, but they also don't make oxygen that other organisms, such as fish, need to live. Erosion is a major contributor to the dirt that flows into our local waters.

Bacteria

Not all bacteria are harmful. However, some bacteria are pathogenic, meaning they can cause disease in humans. If we find certain bacteria living in a body of water, this can indicate that the water might harbor bacteria and viruses that can make you sick. A major source of bacteria comes from pet and agriculture waste that is washed into the rivers, streams and ocean.

Nutrients

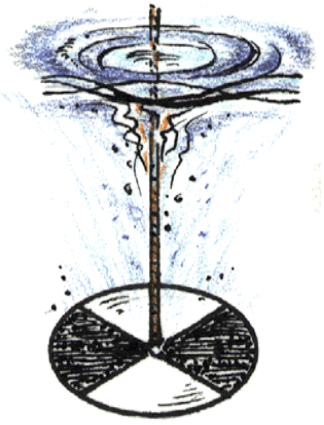
This is the primary cause of water pollution. The main pollutants in this category are nitrogen and phosphorus, but there are many others. Excess nutrients cause algae to grow out of control and use all the available oxygen in water, killing off other organisms that need oxygen to live. The excessive growth can also block sunlight and cause the death of plants and other aquatic organisms. Lawn fertilizers are a major source nitrogen and phosphorus. These nutrients wash off our lawns and end up in the ocean.

Chemicals

This type of pollution comes from household products like cleaning fluids, soaps, pesticides, herbicides and even medicines. These products can contain chemicals that harm sea life when washed into our waters. One major source of these chemicals comes from car washing. Using a car wash rather than washing cars at home helps to reduce chemicals from entering our waterways.

Measuring Water Quality

Water quality can be difficult to measure. You can't tell much about the quality of water simply by looking at it; most pollutants are invisible to our eyes. And since water is such a vast network (made up of rivers, springs, creeks, streams, estuaries, wetlands, lakes, bays, etc.), water quality can be difficult to test. Each water body can contain dramatically different levels of pollution.
It's important to monitor as many streams and rivers as possible to understand water quality and to take actions to prevent further pollution.



secchi disk

Scientists use many different instruments to determine the quality of water, including Secchi disks (measure water clarity), probes, nets, gauges and meters. Water quality is not just measured by direct sampling. Information can also be derived from aerial and satellite photographs by observing the surrounding environment and by collecting organisms that live in the body of water.

Although you might not have access to the resources of a scientist, there are some simple tests you can perform to get an idea of the quality of a particular water body:

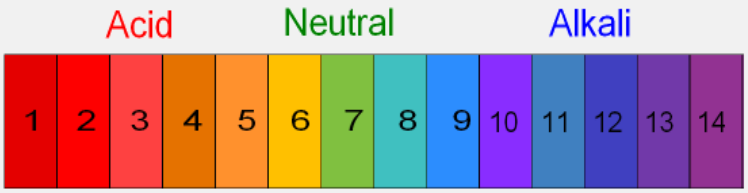
Temperature

The temperature of water can affect it in many ways. Some organisms prefer cool water, while some like it warm. Most aquatic organisms are cold-blooded. This means that the temperature of their bodies matches the temperature of their surroundings. Reactions that take place in their bodies, like photosynthesis and digestion, can be affected by temperature. It is also important to know that when the temperature goes up, water will hold more dissolved solids (like salt or sugar) but fewer dissolved gases (like oxygen). The opposite is true for colder water. Plants and algae that use photosynthesis prefer to live in warm water, where there is less dissolved oxygen. Generally, bacteria tend to grow more rapidly in warm waters. Colder water contains more oxygen, which is better for animals like fish and insect larvae.

Dissolved Oxygen (DO)

Oxygen is necessary for many aquatic species to survive. This test tells you how much oxygen is dissolved in water for fish and other organisms to breathe. Most healthy water bodies have high levels of DO. Lots of organic debris (fallen leaves, sewage leak) can cause a decrease in DO concentration. Microorganisms, in the process of decomposing the organic material, use all the oxygen in water. How does oxygen get in water in the first place? Much of the oxygen in water comes from plants during photosynthesis and also from air as wind blows across the water's surface.

pH (acidity)



The potential of Hydrogen, also known as pH, is a measure of acidity and ranges from 0 (extremely acidic) to 14 (extremely basic) with 7 being neutral. Most water is in the range of 6.5–8.5. Let's see some examples to compare pH values. Lemon juice has a pH of 3 — this makes it an acid. We all know how it feels to accidentally get lemon juice on a cut finger. Stronger acids have the ability to eat through solid objects if spilled. Strong bases, just like acids, can burn your skin. Let's think about why. Our bodies are made mostly of water. Water has a pH of 7. Things that are close to pH 7 work well with our bodies. The same holds true for aquatic organisms. If the water becomes too acidic or basic, it can kill them.

Turbidity

Turbidity refers to the clarity of water, or how clear it is. This determines how much light gets into the water and how deep it goes. Excess soil erosion, dissolved solids or excess growth of microorganisms can cause turbidity. All of these can block light. Without light, plants die. Fewer plants mean less dissolved oxygen. Dead plants also increase the organic debris, which microorganisms feed on. This will further reduce the dissolved oxygen. No dissolved oxygen means other aquatic life forms cannot live in the water.

Water quality issues influence human and environmental health, so the more we monitor our water the better we will be able to recognize and prevent contamination problems. When possible, share your data with local scientists who can use your data along with other peoples to monitor the health of our local waters.

Performance Task: Water Quality Monitoring

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1. **Explain what water quality monitoring is using specific examples from the videos and the article. Cite your sources.** ***(Claim 4, Target 2)***

2. **Which of the three sources, Puget Sound video, the Virginia video, or the Informational Article, would best help a student to understand the importance of water quality monitoring? Reference information from each of the sources in your response. Cite your sources.** ***(Claim 4, Target 3)***

3. **Read this statement: *Water quality Monitoring is essential to the health of our local waters.* Use information from the sources to support this statement. Cite your sources.**

(Claim 4, Target 4)

Part 2: Field Investigation

Students should have the opportunity to conduct water quality testing, preferably at a local site and keep data on this site over time. If it is not possible to take students to a site, then bring water samples into the classroom that you or a parent helper collect from a local river, lake or stream. Create a data base that students contribute to each year to monitor water quality over time.

Discussion questions might include the following:

- What do we mean by water quality monitoring?
- Why is it important to test our water on a regular basis?
- What test can we use and how does each work?
- What local body of water might we adopt to monitor over time?

In addition, teachers may want to consider one or more of the following field investigations:

Project WET-Healthy Water Healthy People Student Journal pages
Sound Salmon Solutions Student pages.

River & Stream Water Quality Monitoring
https://ecology.wa.gov/Research-Data/Monitoring-assessment/River-stream-monitoring/Water-quality-monitoring

Other ideas for field investigations:

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Part 3: Essay

Student Directions:

You will now have time to review your notes and sources, plan, draft, and revise your essay. You may use your notes and refer to the sources. You may also refer to the answers you wrote to questions at the end of part 1, but you cannot change those answers. Now read your assignment and the information about how your essay will be scored, then begin your work.

Your assignment:

You and your classmates will participate in a school service project where you will collect water quality data and share your data with local scientists who are monitoring the health of our rivers, streams and Puget Sound. In preparation for this important work, you have been asked to write an essay where you explain what water quality monitoring is, why it is so important, and how monitoring is done. Use information from both print and video sources in your essay. Cite your sources.

How your essay will be scored:

The people scoring your essay will be assigning scores for

- **Statement of Purpose / Focus**– how well you clearly state and maintain your controlling idea or main idea
- **Organization** – how well the ideas progress from the introduction to the conclusion using effective transitions and how well you stay on topic throughout the essay
- **Elaboration of Evidence**– how well you provide evidence from sources about your topic and elaborate with specific information
- **Language and Vocabulary**– how well you effectively express ideas using precise language that is appropriate for your audience and purpose
- **Conventions**– how well you follow the rules of usage, punctuation, capitalization, and spelling

Now begin work on your essay.

Manage your time carefully so that you can:

- Plan your essay
- Write your essay
- Revise and edit for a final draft

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Planning My Essay

Introduction	
***What*: water quality monitoring is**	
***Why:* Monitoring our water is important**	
***How*: Specific tests we use to monitor the quality of the water**	
Conclusion	

Scoring Notes: Water Quality Monitoring

Water Quality Volunteer

1. **Explain what water quality monitoring is using specific examples from the videos and the article. Cite your sources.** ***(Claim 4, Target 2)***

Analyze/Integrate Information Rubric (Claim 4, Target 2)	
2	• The response gives sufficient evidence of the ability to gather, analyze, and integrate information within and among multiple sources of information.
1	• The response gives limited evidence of the ability to gather, analyze, and integrate information within and among multiple sources of information.
0	• A response gets no credit if it provides no evidence of the ability to gather, analyze, and integrate information within and among multiple sources of information.

Scoring Notes:

- **Four Mile Run Stream Video: Determining how safe the water is for critters and humans by running tests. We can see what critters live in the water. With water quality monitoring, we figure out what is wrong so we can fix it.**
- **Marine Flight Program Video: Collecting different types of data like water clarity and dissolved oxygen to figure out the health of the water over time.**
- **Water Quality Monitoring Article: Water quality monitoring is looking at different types of pollution in the water like bacteria, dirt, nutrients, and chemicals. The water is tested for temperature, dissolved oxygen, pH, and turbidity.**

2 Points:

- **Explains what water quality monitoring is: Testing the water to determine how healthy or safe it is**
- **Uses specific examples of water quality monitoring from the videos and the article**
- **Cites sources**

1 Point:

- **Explains what water quality monitoring is: Testing the water to determine how healthy or safe it is**
- **Uses specific examples from one or two of the sources**
- **May or may not cite sources**

0 Points:

- **Inaccurate or incomplete definition**
- **Little or no references to sources**
- **Vague and confusing response**
- **Off topic**

Scoring Notes: Water Quality Monitoring

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Sample 2 Point Responses:

Example #1: Water quality monitoring is using tests to check for healthy and unhealthy water. According to the article, it is important to monitor for oxygen in the water because "Oxygen is necessary for many aquatic species to survive." Also, you should monitor the temperature. Most aquatic animals are cold blooded and need cold water to survive. Based on Video #1, stream monitoring is looking for little critters. You can analyze the diversity. You want lots of critter types for the water to be healthy. According to video #2, if there is sufficient oxygen in the water, then more aquatic species can survive. Testing the water for things like temperature, oxygen, and diversity is what water quality monitoring is all about!

Example #2: Water quality monitoring is very important! We need to know if our water is safe to drink and for our fish to live. To check the quality of our water, we can run a lot of different tests. In video #1, the students are testing the water for the types of critters that are in it. The more types of critters, the healthier the water! In video #2, the people are using a piece of equipment called a CTD. One thing this equipment measures is temperature. Data is collected and analyzed to see how healthy the water is. In the article, there are four tests that are used to monitor the quality of the water. These include temperature, dissolved oxygen, pH, and turbidity. People use data from all of these tests to monitor the quality of the water.

Sample 1 Point Responses:

Example #1: What is water quality monitoring? Every living thing needs water to survive. According to video number 1, if we don't take care of our bodies of water, they will turn into dead zones. When you wash your car or use objects with chemicals or when sewer leaks happen, that gets into our streams or other water bodies. The water gets polluted the fish can die. We test the water to see if it is healthy for fish and for humans. (Only one source is referenced.)

Example #2: Water quality monitoring is about doing different things to test the water. In the two videos, they stated different things they did like use a C.T.D. in video 2. In video 1, they used buckets, brushes, and microscopes. (References two of the three sources; lacks specific examples of the tests that are used to monitor water quality.)

Sample 0 Point Responses:

Example #1: Everything in the world needs water. If we don't have clean water, nothing can live. So water quality is very important. (Off topic response)

Example #2: Water quality monitoring is the test we do to make sure water is clean so that water animals can live. Fish are cold blooded and every living thing on earth needs water to survive. (Incomplete definition–no tests are described. No reference to sources)

Scoring Notes: Water Quality Monitoring

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2. **Which of the three sources, the Puget Sound video, the Virginia video, or the informational article, would best help a student to understand the importance of water quality monitoring? Reference information from each of the sources in your response. Cite your sources.** ***(Claim 4, Target 3)***

Use Evidence Rubric (Claim 4, Target 3)	
2	• The response gives sufficient evidence of the ability to evaluate the credibility, completeness, relevancy, and/or accuracy of the information and sources.
1	• The response gives limited evidence of the ability to evaluate the credibility, completeness, relevancy, and/or accuracy of the information and sources.
0	• A response gets no credit if it provides no evidence of the ability evaluate the credibility, completeness, relevancy, and/or accuracy of the information and sources.

Scoring Notes:

- **Puget Sound Video:** Local video so we can relate to the problems and be motivated to look for solutions. Narrator is from Shelton, WA and loves the water. She wants to protect it from pollution and water quality monitoring is a way to do this. The video focuses on data collection and analysis. Data is collected from all over the Puget Sound.
- **Virginia Video:** Shows students testing the water at Four Mile Stream. Students can relate to other students and see firsthand how to monitor the water. Also, this video has a politician explaining how important it is for future generations to have clean water. His message is: Students can make a difference!
- **Article**: There is a lot more information in the article, and the article tells us more about the importance of water quality monitoring. The article says that "Monitoring the quality of the surface water will help to protect our waterways from pollution." Farmers, the government, and all of us can help. The article gives us details about pollutants such as dirt and bacteria. We need to monitor for these pollutants.

2 Points:

- **Selects one of the three sources as best in helping students to understand the importance of water quality monitoring**
- **Provides at least one specific reason for the source selected**
- **References the other two sources in comparison**
- **Cites sources**

1 Point:

- **Selects one of the three sources as best**
- **Provides a specific reason for the sources selected**
- **Fails to reference the other sources in comparison**
- **Fails to cite sources**

Scoring Notes: Water Quality Monitoring

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0 Points:

- **Fails to select one source as best or selects a source with no clear rationale**
- **Vague and confusing response**
- **Off topic**

Sample 2-point Responses:

Example #1: I think that the Virginia video is the best source for a student to learn about water quality monitoring and its importance. First, this video teaches you that water quality monitoring saves the animals in the water, so they don't die. In the Virginia video it says that we should try not to pollute or litter or use certain chemicals and I think that this is important to know. Next, the Virginia video tells us that we need healthy water for future generations and neither of the other two sources talks as much about this need. Lastly, the Virginia video stresses that it is our job to undo the damage that has been done to our waters. The congressman in the video emphasizes that we must "stop pollution and fix what is wrong." The Virginia video focuses on the importance of water quality monitoring while the Puget Sound video and the article focus more on how we monitor water quality.

Example #2: I think that the informational article would be the best to help students to understand the importance of water quality monitoring for many reasons. My first reason is that there is more detail in the article. The article talks about what pollutes our water and about the tests we can do. It is easier to understand than the Puget Sound Video and has more information about how to monitor water quality than the Virginia video. Also, the article gives a lot more detail about how the water becomes polluted. It mentions dirt, bacteria, nutrients and chemicals. The other two sources don't talk as much about pollutants. Finally, the article talks a lot about the importance of clean water. Farmers need the water to grow crops; people need water to drink - 60% of our bodies are water! In conclusion, what the article says would help a student to know about the importance of water quality monitoring.

Example #3: The informational article would be the most help to students in understanding the importance of water quality monitoring for many reasons. The Puget Sound video shows the water from the air but does not talk about it enough. The article has much more detail. For example, the article tells us what the pollutants are and gives us ideas about how to keep the water healthy. The Virginia video has a lot of information but in my opinion, it is not enough information. The article would help a student to understand how to measure bacteria in the water, so we can have clean water to drink. The article also describes the tests we can use to monitor the water quality. For all these reasons, I think the informational article is the best choice.

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Sample 1-point responses:

Example #1: I think the Puget Sound video is the best choice. It has the most we can recognize. It shows the Puget Sound and talks about pollution. It shows how to test the water. It tells us to keep the water clean. We live in the Puget Sound. (Identifies one of the sources as best and provides a reason. Does not reference the other two sources in comparison.)

Example #2: The article best helps a student to understand why water quality is important for a few reasons. First, aquatic life need clean water! The text says fish can get mud in their gills which will suffocate them. If we don't have fish, the food chain will be mixed up. Next, we need water. According to the article, everything needs water. If animals drink dirty water, they will get sick and maybe die. As you can see I think keeping water clean is important. (Identifies one of the sources as best and provides specific reasons. Does not reference the other two sources in comparison.)

Sample 0-point responses:

Example #1: I like all of the sources! The videos were fun to watch. The article had a lot of good information. I learned something about what quality monitoring from each of the sources. (Fails to identify one source as best in understanding why water quality monitoring is important. Provides no details.)

Example #2: The article is the best source. I like to read. Reading is the best way to learn anything. The article was fun to read and I liked the pictures! (Off topic response.)

Scoring Notes: Water Quality Monitoring

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3. **Read this statement: *Water quality monitoring is essential to the health of our local waters.* Use information from the sources to support this statement. Cite your sources. *(Claim 4, Target 4)***

Use Evidence Rubric (Claim 4, Target 4)	
2	• The response gives sufficient evidence of the ability to cite evidence to support arguments and/or ideas.
1	• The response gives limited evidence of the ability to cite evidence to support arguments and/or ideas.
0	• A response gets no credit if it provides no evidence of the ability to cite evidence to support arguments and/or ideas.

Scoring Notes:

- **Puget Sound Video: The video looks at how our local region is affected by water quality. It says that we need to protect our water so that our region stays healthy. Our choices affect the health of the Puget Sound. Data collection and analysis helps us to see trends over time. Data informs the choices we make to keep the Puget Sound healthy.**
- **Virginia Video: The video shows how diversity in the types of critters in the water indicates the health of the water. We can then take action to make the water healthier. If we did not monitor the water, we would not know what is happening and how to fix it.**
- **Article: The article says that monitoring water quality will help to protect us from pollution in our waterways. "The more we monitor our water the better we will be able to recognize and prevent contamination problems."**

2 Points:

- **Defends the statement that Water Quality Monitoring is essential to the health of our local water**
- **Uses information from at least two of the three sources**
- **Cites sources**
- o

1 Point

- **Defends the statement that Water Quality Monitoring is essential to the health of our local water**
- **Uses information from only one of the sources**
- **May or may not cite sources**

0 Points:

- **Defends the statement but does not use information from any of the sources**
- **Vague and/or confusing response**
- **Off topic**

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Sample 2-point responses:

Example #1: Water quality monitoring is essential to the health of our local waters for several reasons. First, in the Virginia video, the congressman said "It is our mission to undo the damage done to our environment." This video also talks about water quality monitoring to make sure we don't have parking lot run off like oil, fuel, and grease. According to the article, we need clean water for many uses such as farming, crops, and raising animals. We also need to monitor pollution levels so that the water is safe for us to drink. Our bodies are 60% water and we need clean water to survive!

Example #2: Water quality monitoring is essential to the health of our local water. According to Video #1, the congressman said "It is your mission so your kids can have clean water to drink." Based on the article, it says "We use water to grow crops, operate factories, swimming, surfing, and sailing. Every living thing on earth needs water to survive." If living things do not get water they will very likely die or be sick. This is why water quality monitoring is essential to the health of our local waters.

Example #3: Water quality monitoring is essential to the health of our local waters. Based on the article, we humans need water to drink, grow crops, and many other things. If our water bodies are not healthy, then we can become unhealthy as well. For example, if we drink unhealthy water, we can get very sick. Next, it's not just humans that unhealthy water affects. Almost every critter that lives in our polluted water bodies is likely to suffer from it. According to video #1, the more critters that live in our water, the less polluted our water is. When we monitor water quality, we see how polluted the lakes, rivers, or other water bodies are. According to the article, the government uses our information to control pollution levels. As you can see water quality monitoring is essential!

Sample 1-point responses:

Example #1: Water quality monitoring is essential to the health of our local waters for many reasons. First, if we do water quality monitoring it saves the animals in our water. Cold-blooded animals need cold water to survive. If the water turns warmer, then these animals will die. I think these animals are part of the food chain which means other animals could also die. Next, if we monitor water quality, then we won't have to drink dirty water. We need water quality monitoring to check the waters and if they are not clean, to fix it so we won't have to drink dirty water of have the water be a dead zone. As you can see that's why water quality monitoring is important to us and to animals. (Relevant information but no reference to any of the sources.)

Example #2: Water quality monitoring is essential to the health of our local waters. Yes, that's true! Water quality monitoring is important to our local water for many reasons like making plants grow. Also, it helps animals live. We monitor and we analyze. We make sure the water is clear. We use indicators and CTD in the Puget Sound video. We check for invertebrates. We look for erosion and look at the color of the water. We try to undo damage done to lakes, streams, oceans, and rivers. We use microscopes and color indicators. Those are the many, many reasons water quality is important. (References only one source)

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Sample 0-point responses:

Example #1: Water quality monitoring is very important! We must have clean water! Don't litter or our fish and other animals will die. Also, if animals eat our junk, then they will choke. If our water is dirty, people won't be able to do fun stuff like swim. You can still swim but you will have to swim in gross junk. In conclusion, keep our water clean! (Off topic response: focus is on keeping water clean, not monitoring water quality; no reference to any of the sources.)

Example #2 Water quality is important because the health of the water. I think that it is a good thing because we do the right thing for several reasons. According to the video, it said that you can find animals and you can protect them from going anywhere. The earth needs water because it helps you stay alive and to keep water safe. (Vague and confusing response.)

Informative / Explanatory Writing Rubric (Grades 6-11)
Scoring Version

Score	4	3	2	1
Statement of Purpose/Focus	**The response is fully sustained and consistently and purposefully focused:** • consistent or main idea of a topic is clearly communicated, and the focus is strongly maintained for the purpose, audience, and task	**The response is adequately sustained and generally focused:** • controlling or main idea of the topic is clear, and the focus is mostly maintained for the purpose, audience, and task	**The response is somewhat sustained and may have a minor drift in focus:** • controlling or main idea of a topic may be somewhat unclear, and the focus may be insufficiently sustained for the purpose, audience, and task	**The response may be related to the topic but may provide little or no focus:** • controlling or main idea of the topic may be somewhat confusing or ambiguous; response may be too brief or the focus may drift from the purpose, audience, and task
Organization	**The response has a clear and effective organizational structure creating unity and completeness:** • consistent use of a variety of transitional strategies to clarify the relationships between and among ideas • effective introduction and conclusion • logical progression of ideas from beginning to end; strong connections between and among ideas, with some syntactic variety	**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:** • adequate use of transitional strategies with some variety to clarify the relationships between and among ideas • adequate introduction and conclusion • adequate progression of ideas from beginning to end; adequate connections between and among ideas	**The response has an inconsistent organizational structure, and flaws are evident:** • inconsistent use of transitional strategies with little variety • introduction and conclusion, if present, may be weak • uneven progression of ideas from beginning to end; and/or formulaic; inconsistent or unclear connections between and among ideas	**The response has little or no discernible organizational structure:** • few or no transitional strategies are evident • introduction and conclusion, if present, may be missing • frequent extraneous ideas may be evident; ideas may be randomly ordered or have an unclear progression
Elaboration of Evidence	**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.** • comprehensive evidence from sources is integrated; references are relevant and specific • effective use of a variety of elaborative techniques*	**The response provides adequate support/evidence for the controlling idea and supporting idea(s) that includes the use of sources, facts, and details:** • adequate evidence from sources is integrated; some references may be general • adequate use of some elaborative techniques*	**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:** • some evidence from sources is weakly integrated, imprecise, or repetitive; references may be vague • weak or uneven use of elaborative techniques*; development may consist primarily of source summary	**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:** • evidence from the source material is minimal or irrelevant; references may be absent or incorrectly used • minimal, if any, use of elaborative techniques*
Language	**The response clearly and effectively elaborates ideas, using precise language:** • vocabulary is clearly appropriate for the audience and purpose • effective, appropriate style enhances content	**The response adequately elaborates ideas, employing a mix of precise with more general language**: • vocabulary is generally appropriate for the audience and purpose • generally appropriate style is evident	**The response elaborates ideas unevenly, using simplistic language:** • vocabulary is uneven or somewhat ineffective for the audience and purpose • inconsistent or weak attempt to create appropriate style	**The response is vague, lacks clarity, or is confusing:** • vocabulary is limited or ineffective for the audience and purpose • little or no evidence of appropriate style

Score	2	1	0
Conventions	**The response demonstrates a command of conventions:** • adequate use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling	**The response demonstrates 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

NS	**Unintelligible, in a language other than English, off-topic, insufficient evidence (incomplete) or copied text. (Off-purpose writing will still receive a score in Conventions.)**

*Elaborative techniques may include the use of personal experiences that support the controlling idea.