

# Human Impact on the Environment: An Analysis of its Costs and Benefits

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## Introduction

As a DTI fellow in the Organisms—Adaptations for Survival in Aquatic Environments Seminar, my eyes have been opened to the many dangers humans have posed to organisms and their environments. Though I was aware that humans have overharvested some animals, while bulldozing the habitats of others and introducing harmful pollutants into still others, I did not understand the full scope or extent of this damage until now.

Though I am an English teacher, and not a science teacher, I feel it is my role to expose students to issues that our world is facing so that this generation of students grows up aware and ready to take action. I feel that this is of particular importance at Howard, where so many of students are familiar only with Wilmington.

## Demographics

Howard High School of Technology is one of the four technical high schools in the New Castle County Vocational Technical School District (NCCVT). Students apply to Howard and the other NCCVT schools in order to enter one of the school's career areas, of which Howard offers thirteen, ranging from carpentry to cosmetology to legal administrative assisting.

Howard has a significantly higher population of low-income students than does its sister schools. 29.2% of Delcastle's students are low income, 23.8% of Hodgson's, 11.6% of St. George's, but 43.4% of Howard's fall into this category<sup>1</sup>. Similarly, though we take students from all over New Castle County, the majority of Howard's students come from the city of Wilmington, where Howard is located. Wilmington has recently been dubbed "Murder Town USA," by *Newsweek*--a title that explains the many hardships, tragedies, and academic distractions that our students face daily.

## Rationale

For some of our students, Wilmington is the only world they know. I vividly recall a conversation with one of my homeless students during my first year of teaching. When I asked her if she had ever left Wilmington, she excitedly declared to me that "[she had] been to Maryland once!" The limited world view that many of our students have makes it all the more important to incorporate texts into our curricula that expose them to global issues and challenges, and that is exactly what I hope to do in incorporating texts from the Organisms—Adaptations for Survival in Aquatic Environments Seminar.

Though it may seem as if these texts are overly scientific for an English course, it is a sad fact that as a ninth grade English teacher, I get to spend double the amount of time with my students that our ninth grade science teachers do. Not surprisingly, state test data shows that while over 80% of our tenth grade score proficiently on their English standardized tests, less than 20% do so on their science standardized tests<sup>ii</sup>. Science and Social Studies teachers are too often enlisted to bolster their students' skills in English, with it being one of the focus subjects for state testing. I feel it is necessary for the tables to turn, by incorporating science texts into my English course. Doing so will also benefit my students in comprehending complex informational texts, which make up the majority of the Smarter Balanced Assessment. Moreover, I will use these texts as a foundation for writing an expository essay since Common Core demands that students write more often than they have been previously asked to under DCAS.

Our focus for this unit will be on how to synthesize information across multiple texts to establish argumentative writing. We will do so by considering the following question: Have humans ultimately harmed or benefitted the environment? This unit will help us transition from a unit in which students are writing expository pieces which explain both the benefits and costs of such things as the murder of Emmett Till and of Rites of Passage to writing an essay of argument in which they must develop their own research question and conduct their own research.

#### Common Core Standards

##### CCSS.ELA-Literacy.RI.9-10.1

Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

##### CCSS.ELA-Literacy.RI.9-10.2

Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

##### CCSS.ELA-Literacy.RI.9-10.3

Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

##### CCSS.ELA-Literacy.RI.9-10.4

Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

##### CCSS.ELA-Literacy.RI.9-10.5

Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

CCSS.ELA-Literacy.RI.9-10.6

Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.

CCSS.ELA-Literacy.RI.9-10.7

Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.

CCSS.ELA-Literacy.RI.9-10.8

Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.

CCSS.ELA-Literacy.W.9-10.1.a

Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.

CCSS.ELA-Literacy.W.9-10.1.b

Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.

CCSS.ELA-Literacy.W.9-10.1.c

Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

CCSS.ELA-Literacy.W.9-10.1.d

Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

CCSS.ELA-Literacy.W.9-10.1.e

Provide a concluding statement or section that follows from and supports the argument presented.

CCSS.ELA-Literacy.W.9-10.8

Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

## Content

As students read the texts for this unit, they will be determining the central idea of a text and analyzing its development over the course of the text (CCSS.ELA-Literacy.RI.9-10.2) In order to determine the central idea of a text and track its development, students will need to understand the text structure and rhetorical devices that the author employs (CCSS.ELA-Literacy.RI.9-10.3) as well as how details across the text help to refine the author's position (CCSS.ELA-Literacy.RI.9-10.5). Going hand in hand with determining the author's central idea will be determining the author's point of view on the subject (CCSS.ELA-Literacy.RI.9-10.6).

Students will be reading various texts in various media, some of which will pertain to the same topic. As they evaluate these texts they will need to analyze what details are emphasized in the different media (CCSS.ELA-Literacy.RI.9-10.7). They will also have to determine when a source uses fallacious reasoning (CCSS.ELA-Literacy.RI.9-10.8)

As a culminating activity, students will write an in-class essay in which they have to synthesize information from the sources that they have analyzed and evaluated to respond to a research question: Have Humans Ultimately Benefited or Harmed the Environment?

#### Study: Bumblebees Feeling Climate's Sting

We will read this article as an example of how authors use the ethos of scientists to gain credibility for their point of view. Through this ethos, the author develops the graveness of the problem that he outlines at the beginning of the article and, what's more, emphasizes the even graver quality of this argument, that it does not offer a solution. The fact that this article employs the standard problem/solution text structure but does not have a real solution to offer helps develop the author's panicked point of view. This article will be utilized to argue that humans have harmed the environment.

#### Scientists: Coral Blight Spreading World Wide

We will read this article as an example of an article written in a cause and effect text structure. This article expounds upon the bleaching of coral reefs, particularly those in the vicinity of the United States. It first explains the cause of this phenomenon: the warming of the waters triggered by global warming and El Nino.<sup>iii</sup> Of particular interest in this article is not that it simply concludes with the effects of the global warming (the coral bleaching) but on the effects of the coral bleaching itself. The article concludes with this harrowing fact: "Even though coral reefs are one-tenth of 1 percent of the ocean floor by area, they are home to 25 percent of the world's fish species," Eakin said. "You kill coral, you destroy reefs, you don't have a place for the fish to live"<sup>iv</sup> Additionally, this article makes use of all three rhetorical appeals in the development of its central idea and point of view. This article will support the side of the argument that humans have harmed the environment.

#### Lobsters Move North

We will read this article as an example of an article written in a cause and effect text structure. It also utilizes both ethos and logos to achieve its central idea and point of view. It will support the argument that humans have harmed the environment.

#### The Point of No Return: Climate Change Nightmares Are Already Here

This article, one of those which argues that humans have harmed the environment, explains that the effects of climate change are already being seen in a devastating way. We will read this article as an example of an article written in the problem and solution text structure. It also uses a great deal of ethos, pathos, and logos to achieve its central idea and its point of view. The article cites a logical reasoning in the form of examples to introduce the author's central idea that global warming is having a tangible effect in the year 2015. The article begins, "In just the past few months, record-setting heat waves in Pakistan and India each killed more than 1,000 people. In Washington State's Olympic National Park, the rainforest caught fire for the first time in living memory. London reached 98 degrees Fahrenheit during the hottest July day ever recorded in the U.K.; *The Guardian* briefly had to pause its live blog of the heat wave because its computer servers overheated. In California, suffering from its worst drought in a millennium, a 50-acre brush fire swelled seventyfold in a matter of hours, jumping across the I-15 freeway during rush-hour traffic. Then, a few days later, the region was pounded by intense, virtually unheard-of summer rains. Puerto Rico is under its strictest water rationing in history as a monster El Niño forms in the tropical Pacific Ocean, shifting weather patterns worldwide."<sup>v</sup> By beginning in this manner, the author makes immediately clear the gravity of the situation so that the reader sees the need for a solution. This solution comes in a very straightforward manner: End fossil-fuel use as quickly as possible."<sup>vi</sup> Unfortunately, though, solving global warming is not that simple, so the author offers some caveats, such as, "Even if these novel challenges succeed, it will take years before a bend in the curve is noticeable. But maybe that's enough. When all feels lost, saving a few species will feel like a triumph."<sup>vii</sup>

### What We Do to Stop Invasive Species

This article expounds upon what humans do to counteract the harms of invasive species. It is written in a classification text structure. It begins by introducing the topic, and then focuses on stopping the invasion and lists specific ways NWF goes about doing so. Because this article is produced by NWF and concerns the actions that NWF has taken, it exemplifies an article with a biased point of view. For instance, the article proudly announces "NWF is leading the charge to ensure the Illinois and Federal governments take all necessary immediate measures to prevent Asian carp from entering the Great Lakes, while working towards permanent separation of Lake Michigan from the Mississippi River System"<sup>viii</sup> This article will be useful in supporting the counterargument that humans have benefited the environment.

### Invasive Species

This article, too, is written in a classification text structure. It begins with "What makes a species invasive?" and stems off into "How do invasive species spread?"

“Why do invasive species pose such a threat?” and “Examples of invasive species,” which includes a list of Asian carp, brown marmorated stink bugs, West Nile virus, cogongrass, feral pigs, zebra mussels, European green crabs, Dutch elm disease, and water hyacinth.<sup>ix</sup> It will be used as one of the articles arguing that humans have harmed the environment and can easily refute the counterargument from the previous article. Though, indeed, organizations like NWF are fighting to prevent the damages done by invasive species, invasive species would never have been an issue had it not been for human intervention in the environment.

### Jersey Shore Oyster Industry Growing Again

This article touches both upon the harm and the benefit of human involvement in the environment, with its greater emphasis being the benefit. It begins by focusing on the problem—that oysters in the Jersey Shore had been overharvested—and progresses onto its solution: Raising triploid oysters with three chromosomes instead of two. These oysters are hardier and grow faster, which has brought the oyster industry back to life. Again, this article can be used to refute the argument that humans have benefited the environment, as the efforts by Rutgers scientists would not be necessary had humans not overharvested the oysters in the first place.

### Washington’s Wolves

This article serves as an example of one written in a chronological text structure. It begins by emphasizing human’s harm to the environment, namely that human trapping and poisoning of wolves brought the Pacific North West population of wolves from “one or more wolf packs [making] their homes in every major river valley” to “wolves [being] eradicated from the U.S. Pacific Northwest.”<sup>x</sup> However, as the text progresses through its chronological order, the text transitions to show how humans are now helping the wolf population. Beginning in the 1990’s, the text explains, wolves began to return to the Pacific North West from British Columbia such that, as of 2015, there were a minimum of 68 wolves in Washington, divided into 16 wolf packs, with at least five successful breeding pairs.<sup>xi</sup>

Now that the wolf population in Washington is recovering, Conservation North West is stepping in to ensure that the wolves continue to thrive. They are taking such actions as organizing a “Range Rider Pilot Program,” which seeks to help ranchers protect their livestock in a way that prevents conflict with wolves, lobbying for sustainable wolf recovery with the state government, selling vanity license plates to fund predator conflict prevention, and more.<sup>xii</sup>

This article, like those before it, can be used to support the counterclaim that humans have benefited the environment; however, like the other articles, this article makes clear that helpful human intervention is simply a reaction to harmful human intervention.

## Strategies

### Close Reading

I will direct students to particular passages from the readings that are rich in rhetorical strategies and logical fallacies and pose questions to students so that they can see how these particular passages impact the central idea and point of view of the author.

### Annotations

Students will annotate the text for features that contribute to the central idea of the articles as well as for features that provide hints as to the author's point of view. They will also annotate the texts for sections that can be used as evidence for their synthesis essay.

### CSET

CSET (an acronym standing for Claim, Setup, Evidence, Tie-in) is a structured response for crafting text-dependent questions which will ensure that students properly utilize evidence to support their claims (CCSS.ELA-Literacy.RI.9-10.1)

### Graphic Organizers

Graphic organizers will help students visualize the relationships between the concepts that the articles discuss. They will also help them see the different strategies that the articles employed to convey their central ideas and points of view.

### Activities

#### Lesson 1 – How do I determine the credibility of a source?

In the unit that will follow this one, students will need to conduct their own research and find their own sources. As such, it is vital that they understand that the first task when conducting research is to ensure that the sources they are utilizing are credible. Students will largely be using print sources from the library and sources from databases, which have already been checked for credibility; however, if they should choose to use sources from the Internet, they will need to verify the credibility of the sources using the skills they will gain in this lesson.

This lesson begins with an activator in which students read an article published in a Scranton Newspaper entitled “Woman Rolls Off Landing Dock.” This article makes such unrealistic claims as the wheel chair-bound woman “bolting” for the door and evading capture by others. This activator introduces students to the idea that they have to be critical readers of sources and not simply believe all that they read.

Students then take notes that introduce them to the lesson vocabulary: reliable sources, credibility, domain, and bias. These notes instruct students to analyze sources for the purpose of the website, the author’s intent, any bias, the content of the website, and the design of the website before finally evaluating a website for its credibility. At the end of each section of notes there are distributed summaries and think-pair-shares that force students to analyze a section of a website for the current criteria under study and share their findings.

Then, I model how to fill in a graphic organizer that guides students in analyzing websites for each of the criteria. To model the concept, I use the website [globalclimatescam.com](http://globalclimatescam.com). We note that the purpose of the site is to persuade viewers that global warming is not a true phenomenon. Additionally, we note that the domain is .com, which is our first indication that this website may be of questionable credibility. We then note that there is no direct contact information available; however there is a “contact us” link which at least gives the illusion that the website viewers can contact the creator. In terms of the website’s bias, we note that the website is clearly biased, as the word “scam,” in the URL indicates. We note that the word “scam” has a very strong negative connotation which reveals the bias. Additionally, the website only treats the “scam” of global warming and does not elaborate on any data which may suggest otherwise. Regarding the website’s content, we notice that it is not well-written and tends to rely on rhetorical questions rather than actual proof, though at least there are no mistakes in grammar or in spelling. It is relatively up-to-date, having been written in January of 2015. We also note that, for the most part, links lead to relevant information. In terms of the website’s design, it is well-organized but contains a distracting meme-style photo of Al Gore, which reflects questionable credibility. It also features many advertisements, such as an ad for State Farm and for essay writing tutorials. As a class, we make a final evaluation that determines that this is not a credible website.

From there, students work in groups of four to determine the credibility of an additional six sources. Each student in the group has a specific role: Credibility expert, recorder, presenter, and time keeper. Groups share their findings with the class, who all need to fill in the final evaluation of each of the sources. The sources that students are evaluating, which are available via <http://tinyurl.com/TeacherInstituteUnit>, are as follows:

1. <http://dailycaller.com/2015/03/31/scientists-say-new-study-is-a-death-blow-to-global-warming-hysteria/>

2. <http://www.newsmax.com/MKTNews/global-warming-hoax-facts/2014/10/17/id/601458/>
3. <http://www.rollingstone.com/politics/news/the-point-of-no-return-climate-change-nightmares-are-already-here-20150805?page=4>
4. <http://www.pbs.org/wgbh/nova/next/earth/climate-change-acceptance/>
5. <http://townhall.com/columnists/johnhawkins/2014/02/18/5-scientific-reasons-that-global-warming-isnt-happening-n1796423/page/full>
6. <http://climate.nasa.gov/evidence/>

Lesson 2 - How do I determine the central idea of a source and trace its development across the source?

During this lesson, we will consult the eight sources that either support or attempt to disprove that humans have ultimately harmed the environment. As we read each source, we will determine the author's central idea and point of view. In so doing, we will need to determine the text structure in which the text is written, and the ethos, pathos, and logos reasoning that the authors use to support their claims.

The lesson will begin with an activator in which students are shown three advertisements, one that utilizes pathos, one that utilizes ethos, and one that utilizes logos. Students will have to interpret what each advertisement is arguing and which one they believe to be the most effective. We will share our responses.

We will then take notes on how authors develop a central idea and point of view in their writing. We will identify rhetorical appeals and text structures as the fundamental tools that nonfiction authors use. As students take notes on ethos, pathos, and logos, they will complete distributed summaries in which they have to identify the rhetorical appeals being used and analyze how they are used to create an argument. They will then have to identify the text structures that short, example texts are written in. This lesson will conclude with students writing three short texts: each written in a different text structure, and each using a different rhetorical appeal. They will explain how they used the text structure and the appeals to help them achieve the central idea and their point of view.

Students will then annotate one of our longer text for text structure and rhetoric as I model how I interpret a longer text. They will then use this modeling as they get into groups. Each group will be assigned to one of the other seven texts. They have to analyze the central idea and point of view of their assigned article.

Groups will then share out their findings. Students will take notes in a graphic organizer that will help them see which articles support the idea that humans have helped the environment and which support the idea that humans have harmed the environment. They will copy in quotes that exemplify logos used to support the author's claims.

### Lesson 3 - How do I synthesize information from multiple sources to form and support an opinion?

As a class, we will review our findings in our graphic organizers. We will decide which side of the argument will be our claim and which will be our counterclaim. Since the evidence from the articles is overwhelmingly in favor that humans have harmed our environment, that will become our claim.

It will now be our task to create a “quote organizer,” which is a form of an outline in which we determine what the topic sentence of each of our paragraphs will be and we choose the most fitting evidence to support those claims.

Before we create a quote organizer, we will take brief notes on the terms claim, counterclaim, and refutation and students will read a model essay of argument on the topic “Should the school week be extended to six days?” as a way of visualizing how an essay of argument progresses through claim, counterclaim, and refutation. Students will annotate each paragraph to indicate what part of the argument they represent. In so doing, we will see how the refutation paragraphs treat the same topic as the counterclaim paragraphs, but redirect the evidence or pinpoint a caveat in the evidence to show how the counterclaim is in fact incorrect while the claim is correct.

I will then show my students how I went about selecting my topics for my counterclaim and refutation for the model essay and I how formulated my synthesis graphic organizer and quote document to reflect that. I will then begin guiding students in filling in the refutation column of their synthesis graphic organizer before leaving them to formulate their own quote documents.

#### Lesson Materials

The lesson materials can be found via <http://tinyurl.com/TeacherInstituteUnit>

## Honors ELA 1 Student Learning Map

### Unit Essential Question

How does one use research to form and support an opinion?

<b>Concept</b> Source Credibility	<b>Concept</b> Determining the central idea of a source	<b>Concept</b> Presenting research findings
		
<b>Lesson Essential Questions:</b> <ul style="list-style-type: none"> <li>• How do I determine the credibility of a source?</li> </ul>	<b>Lesson Essential Questions:</b> <ul style="list-style-type: none"> <li>• How do I determine the central idea of a source and trace its development across the source?</li> </ul>	<b>Lesson Essential Questions:</b> <ul style="list-style-type: none"> <li>• How do I synthesize information from multiple sources to form and support an opinion?</li> </ul>
		
<b>Vocabulary</b> <ol style="list-style-type: none"> <li>1. Reliable Sources</li> <li>2. Credibility</li> <li>3. Domain</li> <li>4. Fallacious reasoning</li> </ol>	<b>Vocabulary</b> <ol style="list-style-type: none"> <li>1. Central idea</li> <li>2. Rhetoric</li> <li>3. Rhetorical Appeals               <ol style="list-style-type: none"> <li>a. Ethos</li> <li>b. Pathos</li> <li>c. Logos</li> </ol> </li> <li>4. Text structures               <ol style="list-style-type: none"> <li>a. Chronological approach</li> <li>b. Cause and effect approach</li> <li>c. Compare and contrast approach</li> <li>d. Problem and solution approach</li> </ol> </li> </ol>	<b>Vocabulary</b> <ol style="list-style-type: none"> <li>5. Plagiarism</li> <li>6. Notetaking</li> <li>7. Paraphrase</li> <li>8. Integration of quotations</li> <li>9. In-text citation</li> <li>10. Synthesize information</li> <li>11. Transitions</li> <li>12. Thesis</li> <li>13. Quote document</li> <li>14. Outline</li> <li>15. APA format</li> <li>16. Annotated bibliography</li> </ol>

	5. Point of View 6. Bias 7. Objective Summary	
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Borenstein, Seth. "Scientists: Coral Blight Spreading Worldwide." *Associated Press*, October 8, 2015. Accessed October 25, 2015. [http://www.philly.com/philly/news/nation\\_world/20151008\\_Scientists\\_\\_Coral\\_blight\\_spreading\\_worldwide.html](http://www.philly.com/philly/news/nation_world/20151008_Scientists__Coral_blight_spreading_worldwide.html).

This article explains that global warming-induced and El Nino-induced warming of the ocean is bringing about the death of coral reefs.

Conservation Northwest. "Washington's Wolves." Conservation Northwest. Accessed October 25, 2015. <http://www.conservationnw.org/what-we-do/wildlife-habitat/gray-wolf>.

This website provides a chronology of wolves in Washington state, from their extinction to their repopulation.

Holthaus, Eric. "The Point of No Return: Climate Change Nightmares Are Already Here." *RollingStone*, August 5, 2015. Accessed October 25, 2015. <http://www.rollingstone.com/politics/news/the-point-of-no-return-climate-change-nightmares-are-already-here-20150805>.

This article provides many statistics that illustrate that the effects of global warming are already tangible.

National Wildlife Federation. "Invasive Species." National Wildlife Federation. Last modified 2015. Accessed October 25, 2015. <https://www.nwf.org/Wildlife/Threats-to-Wildlife/Invasive-Species.aspx>.

This website introduces the concept of invasive species including what they are, how they get here, and what species are involved.

National Wildlife Federation. "What We Do to Stop Invasive Species." National Wildlife Federation. Last modified 2015. Accessed October 25, 2015. <https://www.nwf.org/What-We-Do/Protect-Wildlife/Invasive-Species.aspx>.

This website explains what the National Wildlife Federation is doing stop the damage done by invasive species.

State of Delaware. "Howard High School of Technology." Delaware Department of Education. Last modified 2015. Accessed October 25, 2015.  
<http://profiles.doe.k12.de.us/SchoolProfiles/School/Default.aspx?checkSchool=26&districtCode=38>.

This website provides statistics and demographic information on Howard High School of Technology.

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<sup>i</sup> "Howard High School of Technology," Delaware Department of Education, last modified 2015, accessed October 25, 2015,  
<http://profiles.doe.k12.de.us/SchoolProfiles/School/Default.aspx?checkSchool=26&districtCode=38>.

<sup>ii</sup> Ibid.

<sup>iii</sup> Seth Borenstein, "Scientists: Coral Blight Spreading Worldwide," *Associated Press*, October 8, 2015, [Page #], accessed October 25, 2015,  
[http://www.philly.com/philly/news/nation\\_world/20151008\\_Scientists\\_\\_Coral\\_blight\\_spreading\\_worldwide.html](http://www.philly.com/philly/news/nation_world/20151008_Scientists__Coral_blight_spreading_worldwide.html).

<sup>iv</sup> Ibid.

<sup>v</sup> Holthaus, Eric. "The Point of No Return: Climate Change Nightmares Are Already Here." *RollingStone*, August 5, 2015. Accessed October 25, 2015.  
<http://www.rollingstone.com/politics/news/the-point-of-no-return-climate-change-nightmares-are-already-here-20150805>.

<sup>vi</sup> Ibid.

<sup>vii</sup> Ibid.

<sup>viii</sup> National Wildlife Federation. "What We Do to Stop Invasive Species." National Wildlife Federation. Last modified 2015. Accessed October 25, 2015.  
<https://www.nwf.org/What-We-Do/Protect-Wildlife/Invasive-Species.aspx>.

<sup>ix</sup> National Wildlife Federation. "Invasive Species." National Wildlife Federation. Last modified 2015. Accessed October 25, 2015. <https://www.nwf.org/Wildlife/Threats-to-Wildlife/Invasive-Species.aspx>.

<sup>x</sup> Conservation Northwest. "Washington's Wolves." Conservation Northwest. Accessed October 25, 2015. <http://www.conservationnw.org/what-we-do/wildlife-habitat/gray-wolf>.

<sup>xi</sup> Ibid

<sup>xii</sup> Ibid

**Curriculum Unit**

Human Impact on the Environment: An Analysis of its Costs and Benefits

Title

Author

Katie Galgano

**KEY LEARNING, ENDURING UNDERSTANDING, ETC.**

Students will understand how to use research to form and support an opinion.

**ESSENTIAL QUESTION(S) for the UNIT**

How does one use research to form and support an opinion?

**CONCEPT A**

Source Credibility

**CONCEPT B**

Determining the central idea of a source

**CONCEPT C**

Synthesis

**ESSENTIAL QUESTIONS A**

- How do I determine the credibility of a source?

**ESSENTIAL QUESTIONS B**

- How do I determine the central idea of a source and trace its development across the source?

**ESSENTIAL QUESTIONS C**

- How do I synthesize information from multiple sources to form and support an opinion?

**VOCABULARY A**

13. Reliable Sources
14. Credibility
15. Domain
16. Fallacious reasoning

**VOCABULARY B**

1. Central idea
2. Rhetoric
3. Rhetorical Appeals
  - a. Ethos
  - b. Pathos
  - c. Logos
4. Text structures
  - a. Chronological approach
  - b. Cause and effect approach
  - c. Compare and contrast approach
  - d. Problem and solution approach
5. Point of View
6. Bias
7. Objective Summary

**VOCABULARY C**

1. Plagiarism
2. Notetaking
3. Paraphrase
4. Integration of quotations
5. In-text citation
6. Synthesize information
7. Transitions
8. Thesis
9. Quote document
10. Outline
11. APA format
12. Annotated bibliography

