



**Literacy Design
Collaborative**

Population Ecology - Human Impact on Ecosystems and Natural Resources

by Jen Varrella, Gena D. Rowell, Joanna Bruno, and Cathrine N. Prenot

This module is meant to be taught independently or in conjunction with the Colorado Department of Education Instructional Unit Sample for High School Biology, "Population Ecology", found at: <http://www.cde.state.co.us/standardsandinstruction/instructionalunits-science>

The Colorado Department of Education unit focuses on ecological interactions between populations of organisms and their environment. The unit describes biotic interactions, trophic levels and energy flow, cycles of matter, abiotic and biotic resources, and population and community dynamics. Beginning with ecosystem components, across the unit students will explore ecological concepts such as biotic and abiotic factors, biomes, niche, keystone species, communities, populations, ecosystems, and the biosphere. The unit culminates in a performance assessment that asks students to create a presentation for a local authority (county commissioner, city council, zoning board, etc.) to present an analysis of the impacts of the eradication of a top level consumer.

This module, on its own or within Learning Experiences 9, 10, and 11 of the above unit, will ask students to research and write a public service announcement that discusses differing opinions on human impacts on ecosystems and natural resources, specifically either the habitat or food web of a particular local or global area.

GRADES

9 - 12

DISCIPLINE

 **Science**

COURSE

 **Biology**

Section 1: What Task?

Teaching Task

Task Template 22 - Informational or Explanatory

How do humans impact local or global ecosystems and natural resources? After researching a variety of case studies, informational websites, and videos on human impacts on ecosystems and natural resources in a local or global area, write a public service announcement that includes a visual representation in which you compare the long-term and short-term effects of the human impacts on either the cycles (carbon, nitrogen, water, etc.), habitat, or food web of an area. Support your discussion with evidence from your research.

D 1

Be sure to acknowledge competing views.

Common Core State Standards

Reading Standards for Literacy in Science and Technical Subjects 6—12

RST.11-12.1

Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

RST.11-12.2

Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

RST.11-12.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11—12 texts and topics.

RST.11-12.6

Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

RST.11-12.10

By the end of grade 12, read and comprehend science/technical texts in the grades 11—CCR text complexity band independently and proficiently.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6—12

- WHST.11-12.2** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
- WHST.11-12.2.e** Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
- WHST.11-12.2.d** Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.
- WHST.11-12.2.c** Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- WHST.11-12.2.b** Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- WHST.11-12.2.a** Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- WHST.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- WHST.11-12.5** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
- WHST.11-12.9** Draw evidence from informational texts to support analysis, reflection, and research.
- WHST.11-12.10** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Additional Standards

Colorado

Colorado Academic Standards for Science

- CO** Develop, communicate, and justify an evidence-based scientific explanation showing how ecosystems follow the laws of conservation of matter and energy
- CO** Matter tends to be cycled within an ecosystem, while energy is transformed and eventually exits an ecosystem
- CO** Analyze how energy flows through trophic levels
- CO** Evaluate the potential ecological impacts of a plant-based or meat-based diet
- CO** Analyze and interpret data from experiments on ecosystems where matter such as fertilizer has been added or withdrawn such as through drought
- CO** Develop, communicate, and justify an evidence-based scientific explanation showing how ecosystems follow the laws of conservation of matter and energy
- CO** Define and distinguish between matter and energy, and how they are cycled or lost through life processes
- CO** Describe how carbon, nitrogen, phosphorus, and water cycles work
- CO** Use computer simulations to analyze how energy flows through trophic levels
- CO** Describe how carbon, nitrogen, phosphorus, and water cycles work
- CO** The size and persistence of populations depend on their interactions with each other and on the abiotic factors in an ecosystem
- CO** Analyze and interpret data about the impact of removing keystone species from an ecosystem or introducing non-native species into an ecosystem
- CO** Describe or evaluate communities in terms of primary and secondary succession as they progress over time
- CO** Evaluate data and assumptions regarding different scenarios for future human population growth and their projected consequences
- CO** Examine, evaluate, question, and ethically use information from a variety of sources and media to investigate ecosystem interactions

CO

Evaluate data and assumptions regarding different scenarios for future human population growth and their projected consequences

Texts

- 🔗 **Researching the Effects of Rising Atmospheric CO₂ on Plant Communities**
- 🔗 **Project Noah and Project Blitz, citizen science for wildlife population**
- 🔗 **National Wildlife Research Center - Human and Wildlife Conflict links**
- 🔗 **Images for the components of an ecosystem**
- 🔗 **Human Activity & Climate Change**
- 🔗 **National Geographic - Climate Change Resources**
- 🔗 **Information and videos around climate change**
- 🔗 **Gould league Food web creators**
- 🔗 **Images for trophic levels or food webs**
- 🔗 **Information on trophic levels and energy transfer**
- 🔗 **(Videos and information around food webs)**
- 🔗 **Food web study jams, animations**
- 🔗 **Video on deforestation and climate change**
- 🔗 **(Bill Nye Season 1 Episode on Populations) Prentice Hall (2009). Interactive Science Ecology and Environment.**
- 🔗 **Human Actions are Putting Pressure on Species, Sites, and Habitats - Case Studies in links**
- 🔗 **Human Impact on Marine Ecosystems - case studies**
- 🔗 **Helping Pacific Salmon Survive Impact of Climate Change on Freshwater Habitat - case study**
- 🔗 **Study of the impact of human disturbances on habitat selection and on calf survival for forest-dwelling caribou**
- 🔗 **Impact of Wind Farms on Habitat - Case Study**
- 🔗 **OIL A LIFE CYCLE ANALYSIS OF ITS HEALTH AND ENVIRONMENTAL IMPACTS**
- 🔗 **Causes and Consequences of Dispersal in Plants and Animals**
- 🔗 **Natural and Human Impacts on Wildlife**
- 🔗 **Climate Impacts on Ecosystems**
- 🔗 **Climate Change and the Arctic Ecosystem**
- 🔗 **Marine Habitat Destruction**
- 🔗 **Impacts on Food Chains and Food Webs**
- 🔗 **Food Web Simulation Studies on Aquatic Ecosystems**
- 🔗 **Human Impact on the Ocean**

LDC Student Work Rubric - Informational or Explanatory

	Not Yet	Approaches Expectations	Meets Expectations	Advanced
	1	2	3	4
Focus	Attempts to address prompt, but lacks focus or is off-task.	Addresses prompt appropriately, but with a weak or uneven focus.	Addresses prompt appropriately and maintains a clear, steady focus. D: Addresses additional demands sufficiently.	Addresses all aspects of prompt appropriately and maintains a strongly developed focus. D: Addresses additional demands with thoroughness and makes a connection to controlling idea.
Controlling Idea	Attempts to establish a claim, but lacks a clear purpose.	Establishes a controlling idea with a general purpose.	Establishes a controlling idea with a clear purpose maintained throughout the response.	Establishes a strong controlling idea with a clear purpose maintained throughout the response.
Reading/Research	Attempts to present information in response to the prompt, but lacks connections or relevance to the purpose of the prompt.	Presents information from reading materials relevant to the purpose of the prompt with minor lapses in accuracy or completeness.	Presents information from reading materials relevant to the prompt with accuracy and sufficient detail.	Accurately presents information relevant to all parts of the prompt with effective selection of sources and details from reading materials.
Development	Attempts to provide details in response to the prompt, including retelling, but lacks sufficient development or relevancy.	Presents appropriate details to support the focus and controlling idea.	Presents appropriate and sufficient details to support the focus and controlling idea.	Presents thorough and detailed information to strongly support the focus and controlling idea.
Organization	Attempts to organize ideas, but lacks control of structure.	Uses an appropriate organizational structure to address the specific requirements of the prompt, with some lapses in coherence or awkward use of the organizational structure.	Maintains an appropriate organizational structure to address the specific requirements of the prompt.	Maintains an organizational structure that intentionally and effectively enhances the presentation of information as required by the specific prompt.
Conventions	Attempts to demonstrate standard English conventions, but lacks cohesion and control of grammar, usage, and mechanics. Sources are used without citation.	Demonstrates an uneven command of standard English conventions and cohesion. Uses language and tone with some inaccurate, inappropriate, or uneven features. Inconsistently cites sources.	Demonstrates a command of standard English conventions and cohesion, with few errors. Response includes language and tone appropriate to the audience, purpose, and specific requirements of the prompt. Cites sources using an appropriate format with only minor errors.	Demonstrates and maintains a well-developed command of standard English conventions and cohesion, with few errors. Response includes language and tone consistently appropriate to the audience, purpose, and specific requirements of the prompt. Consistently cites sources using an appropriate format.
Content Understanding	Attempts to include disciplinary content in explanations, but understanding of content is weak; content is irrelevant, inappropriate, or inaccurate.	Briefly notes disciplinary content relevant to the prompt; shows basic or uneven understanding of content; minor errors in explanation.	Accurately presents disciplinary content relevant to the prompt with sufficient explanations that demonstrate understanding.	Integrates relevant and accurate disciplinary content with thorough explanations that demonstrate in-depth understanding.

Background for Students

You will be focusing on ecological interactions between populations of organisms and their environment, including biotic interactions, trophic levels and energy flow, cycles of matter, abiotic and biotic resources, and population and community dynamics. Beginning with ecosystem components, across the unit you will explore ecological concepts such as biotic and abiotic factors, biomes, niche, keystone species, communities, populations, ecosystems, and the biosphere.

Extension

The public service announcement may actually go public through an actual radio spot, podcast, youtube presentation, etc.

Section 2: What Skills?

Preparing for the Task

BRIDGING CONVERSATION > TASK ENGAGEMENT: Ability to connect the task and new content to existing knowledge, skills, experiences, interests, and concerns.

TASK AND RUBRIC ANALYSIS > TASK ANALYSIS: Ability to understand and explain the task's prompt and rubric.

Reading Process

PRE-READING > TEXT SELECTION: Choose from case studies and articles supplied by teacher, or find a case study that fits the task prompt and is approved by teacher.

ACTIVE READING > NOTE-TAKING: Ability to select important facts and passages for use in one's own writing.

ACTIVE READING > ESSENTIAL VOCABULARY: Ability to identify and master terms essential to understanding a text.

Transition to Writing

BRIDGING CONVERSATION > PREPARING FOR WRITING: Ability to begin linking reading results to writing task.

Writing Process

PLANNING > PLANNING THE WRITING: Ability to develop a line of thought and text structure appropriate to the task.

DEVELOPMENT > INTRODUCTORY PARAGRAPH: Make an opening statement that will be a clear statement of the issue being addressed.

DEVELOPMENT > BODY PARAGRAPHS: Explain points of human impact on animal life cycles, food webs, or habitat. Support with evidence from text.

REVISION, EDITING, AND COMPLETION > PEER EDITING: Self and Peer Editing of PSA.

REVISION, EDITING, AND COMPLETION > FINAL DRAFT: Ability to submit final piece that meets expectations.

Section 3: What Instruction?

PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
<i>Preparing for the Task</i>				
20 mins	<p>BRIDGING CONVERSATION > TASK ENGAGEMENT: Ability to connect the task and new content to existing knowledge, skills, experiences, interests, and concerns.</p>	<p>QUESTION DEVELOPMENT PROMPT: Working with your group, look at the images at your table. You will have five minutes to write down as many questions as you can. When time is up, label your closed-and open-ended questions. Then, circle the 4 most important questions. Lastly, write about why 1 of your important questions is so important.</p> <p>PRODUCT: Question Lists; Brief Explanation of an Important Question</p>	<ul style="list-style-type: none"> • Forms relevant questions. • Appropriately labels closed- and open- ended questions. • Explains why a particular question is important, reflecting content knowledge. 	<p><i>This activity works well to help build prior knowledge about a topic or reinforce content knowledge.</i></p> <p><i>Materials:</i></p> <ul style="list-style-type: none"> • Handouts • Printed images related to your topic of study (each small group will need at least two printed images) <ol style="list-style-type: none"> 1. Read aloud the Questions Development Article and Questions handout. Project an image using a Powerpoint or Overhead Projector. Model how to form two strong Open-Ended and Closed-Ended questions. 2. Assign students to small groups. Explain to students that they will have 5 minutes to look at the images at their table and write down as many questions as they can. Explain they should follow the "Rules for Creating Questions" - <ul style="list-style-type: none"> • Ask as many questions as you can. • Do not stop to judge, discuss or answer any question. • Write down every question exactly as it is stated. • Change any statement into a question. 3. When time is up, students should label their questions as either closed-ended or open-ended questions. Next, they need to circle the 4 most important questions. Lastly, they should write about why 1 of their important questions is so important. 4. Have students share out their responses. <p><i>Mini-task author school/organization:</i> Middle College HS, Queens, NY/National Writing Project</p>
<p>Standards:</p> <p>CCSS.ELA-LITERACY.CCRA.W.10 : Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.</p> <p>CCSS.ELA-LITERACY.CCRA.W.5 : Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.</p>				

PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
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Additional Attachments:

 Oil spill image with bird



 Question Development Article

 Question Development Handout (Word Version)



 Question Development Handout (PDF)

 image of owl in deforestation

 images of different animals in habitat destruction situations

 ocean animals in habitat destruction situations

 Image of Polar Bear Climate Change

30 mins

TASK AND RUBRIC ANALYSIS > TASK ANALYSIS:

Ability to understand and explain the task's prompt and rubric.

TASK ANALYSIS

As a class we will analyze the prompt and rubric(s) for this module and break them down so we know what the expectations are for this module.

Meets Expectations:

- Sheet is fully filled out and student responses reflect understanding of the task.

- Read / share important background knowledge about the unit/module with your students.
- Explain to the class that the goal of this unit/module is to _____ and learn more about _____. After doing all this learning they will _____ [insert task].
- Pass out Prompt Reflection Sheet and guide a class discussion about what each part of the prompt means. Use questions like:
 - What will you have to do to successfully answer this part of the prompt?
 - What do you need to learn to be able to do this?
 - What parts of this seem easy / what parts seem hard?
- Review the reflection sheets and read them over so you have a good sense of how well each student understands the task – provide additional feedback and support as necessary in the following days.
- Prior student experience will determine how much time will need to be spent deconstructing rubrics. If needed, groups of students can be assigned portions of the rubric to analyze and reword to present to class.
 - *In addition to the Informational rubric that is uploaded to this module, a Public Service Announcement rubric is uploaded if it is your desire to also score the elements particular to PSAs.

Standards:

CCSS.ELA-LITERACY.CCRA.R.1 : Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCSS.ELA-LITERACY.CCRA.W.5 : Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.



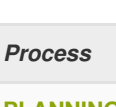
PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
	Additional Attachments: 📄 Prompt Reflection TEMPLATE 📄 Prompt Reflection 📄 Public Service Announcement rubric			
25 mins	TASK AND RUBRIC ANALYSIS > TASK ANALYSIS: Ability to understand and explain the task's prompt and rubric.	WHAT IS A PUBLIC SERVICE ANNOUNCEMENT? We will look at and/or listen to a variety of sample Public Service Announcements so that you will have an idea of how they need to grab the audience's attention, be informative and concise. We will then discuss what you feel is effective and not.	Discussion participation or written statement of one technique you plan to use.	<ol style="list-style-type: none"> 1. Show students a variety of samples of Public Service Announcements either from uploaded resources on this module, local literature, television or radio. They can also be found on sites like youtube.com. 2. Have a classroom discussion about what types of PSA's they felt were effective, and why some were not. As a class, write down what techniques were most effective in making them listen to a PSA and remember its message. 3. You may choose to have the students write down down the effective strategies they will use in their own PSA.
Standards: CCSS.ELA-LITERACY.WHST.11-12.2 : Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. CCSS.ELA-LITERACY.WHST.11-12.2A : Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. CCSS.ELA-LITERACY.WHST.11-12.2B : Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.				
Additional Attachments: 📄 Samples of Public Service Announcements 📄 Public Service Announcements on youtube.com				
Reading Process				

PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
50 mins	<p>PRE-READING > TEXT SELECTION: Choose from case studies and articles supplied by teacher, or find a case study that fits the task prompt and is approved by teacher.</p>	<p>CASE STUDY SELECTION From a given set of case studies or scientific articles, choose one or more texts about a particular aspect of human impact on animals that interests you or that you feel needs to be addressed through a public service announcement. If there is a particular local or global issue of this nature that is of importance to you, and there is not text provided on this topic, special arrangements may be made with your teacher to find reliable case studies or information for you to use as your text.</p>	<ul style="list-style-type: none"> • A brief sentence or two will be turned in explaining which case study(ies) were chosen and why. *If the student chooses to do research to find his/her own resources on a different topic not provided, that will need to be turned in and explained for approval by the teacher. 	<ol style="list-style-type: none"> 1. Show or provide a variety of public service announcements in order that students will know what type of product they are trying to create. 2. Explain the importance of choosing an issue that matters to them. Model with a mock demonstration of trying to do an announcement on something that is unimportant to you, when you feel no passion for the issue. Feel free to make the demonstration humorous or boring as you attempt to talk about this "unimportant" issue. 3. Pass out either a list of possible topics or print outs of actual case studies or scientific articles that can be used as possible texts for this module. Many possible case studies and articles are uploaded to this module as resources. Those or others may be used. If there are particular local issues of this nature going on in your area, you may choose to provide resources for students to use since they are likely to feel invested in a local issue. 4. You may require students to use only one text, or multiple sources. You may provide one case study and ask students to research and find another reliable source of information to also use. 5. If students wish to use a topic for which you provided no resource, you will have to determine with those students what is a reliable source, how many sources they need, and by what date they are to have those texts ready to use in class. 6. After students have chosen their topic and/or case studies and articles, have them briefly write a statement describing the topic they chose and the texts that will support this topic.
<p>Standards:</p> <p>CCSS.ELA-LITERACY.RST.11-12.7 : Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p>CCSS.ELA-LITERACY.RST.11-12.8 : Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p>CCSS.ELA-LITERACY.RST.11-12.9 : Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p>CCSS.ELA-LITERACY.RST.11-12.10 : By the end of grade 12, read and comprehend science/technical texts in the grades 11—CCR text complexity band independently and proficiently.</p>				
<p>Additional Attachments:</p>				


PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
1 hr	<p>ACTIVE READING > NOTE-TAKING: Ability to select important facts and passages for use in one's own writing.</p>	<p>NOTETAKING <i>Prompt:</i></p> <p>a. First, from the given available case studies, you will read the case study(ies) on your own. Determine from your particular case study whether you will be addressing the effects on an animal's life cycle, habitat, or food web.</p> <p>b. Read texts for a second time and highlight information needed to answer the prompt, using one color for information about the effects on the animal's life cycle, habitat, or food web (Topic 1) and another color for information about how humans caused those effects. (Topic 2)</p> <p>c. Read the case study/article and take Cornell notes.</p> <p><i>Product:</i></p> <p>a. Annotated (color-coded) texts</p> <p>b. Cornell Notes</p>	<p><i>Work meets expectations if:</i></p> <ul style="list-style-type: none"> • Students text code (highlight with two colors as described above) case study(ies) • Students participate in a discussion after text coding • Cornell notes for the third text reading 	<p>1. Students will read a case study individually or as a class.</p> <p>2. Students will go back and read the case study(ies) for a second time. This time, they will highlight information that they feel will help them answer the prompt. Students will use text coding to classify the texts.</p> <p>Two different colored highlighters will also be used. They will use one color for information about the effects on the animal's life cycle, habitat, or food web (Topic 1) and another color for information about how humans caused those effects.(Topic 2)After highlighting, students will lead a discussion and identify items they highlighted and give evidence on why they assigned it the code they did. The discussion groups can be sorted by students who chose to use similar case studies, initially, so students with similar case studies can help to check for one another's understanding. Optional: Students may go into a second small group or partnership with those who have different case studies and may discuss with the others what their own case study is about, in order to further enhance their own understanding of the text.</p> <p>3. Students will read the case study again and take Cornell notes. (Depending on prior experience with taking Cornell notes, students may need instruction in this area. Modeling, a Cornell note-taking form, etc. can be used)</p> <p><i>Notes</i></p> <ul style="list-style-type: none"> • The teacher will explain to the class the purpose and importance of text coding (highlighting). Teacher will show how text coding helps students organize notes and ideas which in turn will make writing the report much easier. • The teacher will facilitate while the students collaborate as a whole group in identifying ____ (Topic 1) and ____ (Topic 2) notes. • The teacher may help students learn how to correctly create Cornell notes by providing them with a teaching tool he/she calls 'skeleton' Cornell notes. This technique shows students the proper format for Cornell notes, but leaves out some of the information. Students have to go back to the text to find the missing information. Not only are they more closing analyzing the text and find main ideas, but they are also learning how to create Cornell Notes.
<p>Standards:</p> <p>CCSS.ELA-LITERACY.CCRA.R.4 : Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.</p> <p>CCSS.ELA-LITERACY.CCRA.R.1 : Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.</p>				

PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
	Additional Attachments: 📄 Cornell Note-taking form 🔗 How to Take Cornell Notes			
50 mins	<p>ACTIVE READING > ESSENTIAL VOCABULARY: Ability to identify and master terms essential to understanding a text.</p>	<p>FRAYER MODEL VOCABULARY <i>Product:</i> Frayer Model <i>Prompt:</i> In groups that are reading the same case studies or are on similar topics, work to identify 5 essential words or terms from each reading. Be prepared to post and facilitate the learning of your peers.</p>	<p><i>Meets expectations if:</i> Provides accurate definitions and or explanations.</p>	<ol style="list-style-type: none"> 1. Model the use of a Frayer Model (a word mapping strategy), by identifying essential vocabulary words from the reading and thinking aloud how you complete each step of the Frayer Model and filling in the Student Handout. 2. Assign students to groups that are reading the same or similar case studies. They will work to identify 5 words from the reading. For each word, they need to complete the steps of the Frayer model (write a definition, offer examples, write characteristics and non-characteristics of the word). Provide students with dictionaries or thesauri if necessary. Use of on-line dictionaries or thesauri are beneficial. 3. Each group will present their words and maps to the class.
<p>Standards:</p> <p>CCSS.ELA-LITERACY.CCRA.W.4 : Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>CCSS.ELA-LITERACY.CCRA.R.10 : Read and comprehend complex literary and informational texts independently and proficiently.</p>				
Additional Attachments: 🔗 Student Handout				
<p>Transition to Writing</p>				

PACING	SKILL AND DEFINITION	PRODUCT AND PROMPT	SCORING GUIDE	INSTRUCTIONAL STRATEGIES
1 hr	<p>BRIDGING CONVERSATION > PREPARING FOR WRITING: Ability to begin linking reading results to writing task.</p>	<p>TWO-CIRCLE DISCUSSION PRODUCT: Inner circle discussion and outer circle notes</p> <p>PROMPT: During your turn in the inner circle, discuss the prompting questions, supporting your responses by referencing evidence in the given article. During your turn in the outer circle, take notes on the inner circle's ideas and discussion strategies. Share around your observations when it is your turn.</p>	<ul style="list-style-type: none"> • Responses to questions during the inner and outer discussions are relevant and reference the texts. • Notes are mostly complete with ideas from the inner circle discussion and the correct discussion strategy. • Observations from notes are shared with classmates. 	<p>*All students will need to complete the reading of the uploaded article "Natural and Human Impacts on Animals" prior to participating in the Two-Circle Instruction Part B (Student Practice).</p> <p>(A) MODELING - Only do this Modeling step if your students have no prior experience with Two-Circle Discussions or Socratic Seminars</p> <ol style="list-style-type: none"> 1) Pass out the Two-Circle Discussion Strategies Handout and read the handout aloud. Provide additional examples of each strategy. 2) Ask four students to model a mini Two-Circle Discussion. Provide them with a sample script (on a different, but related topic) that includes questions and responses. Provide the entire class with this script, along with sample notes. 3) Ask students to identify strengths and weaknesses about the observed discussion. What questions were relevant? What questions could have been improved? 4) Ask students to pose other questions they might want answers to about this sample topic. <p>(If students don't generate adequate responses, teacher can model for them using the Sample Questions Handout).</p> <ol style="list-style-type: none"> 5) Ask students to provide answers to the questions posed. <p>(Teacher can model answers for students).</p> <p>(B) STUDENT PRACTICE - Prior to completing this portion, all students need to read uploaded article "Natural and Human Impacts on Animals"</p> <ol style="list-style-type: none"> 1) Assign all students their role for the discussion (1/2 of the class will form an inner circle and 1/2 of the class the outer circle) and pass out the Two-Circle Notes Handout. 2) For the first half of the class period allow the students in the inner circle to discuss the topic for the day. (It might be wise to select a discussion chairman to conduct the discussion, keep it going, keep order, if needed.) 3) Students in the outer circle are to listen attentively to the discussion, but they may not speak. They should listen and complete the Notes handout. 4) Following a set time, the students in the outer circle may ask questions or elaborate on what the inner circle has said. No questions are to be addressed to any particular student. Instead, each student just asks his/her question and it is up to the inner circle as a whole to deal with it. 5) Students switch roles and continue the discussion. <p>(C) CLOSING</p> <ol style="list-style-type: none"> 1) Ask students to reflect on the discussion. What did they do well? What could have been improved?

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				*Adapted from: http://www.edmondschools.net/Portals/0/docs/Inner-OuterCircle.pdf
Standards: CCSS.ELA-LITERACY.CCRA.SL.4 : Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. CCSS.ELA-LITERACY.CCRA.SL.3 : Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. CCSS.ELA-LITERACY.CCRA.SL.1 : Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.				
Additional Attachments: 🔗 "Natural and Human Impacts on Animals" article 📄 Two-Way Discussion Strategies (Word Version)  📄 Two-Way Discussion Strategies (PDF Version)  📄 Sample Module (Including this Mini-Task) 				
Writing Process				
40 mins	PLANNING > PLANNING THE WRITING: Ability to develop a line of thought and text structure appropriate to the task.	WHAT IS A PUBLIC SERVICE ANNOUNCEMENT? HOW DO I WRITE ONE? You will read a document that describes the what a Public Service Announcement is and how to write one. As you are reading, underline anything you have heard of before in a PSA, anything that sounds familiar. Place stars next to pieces of information that are completely new to you.	Article with underlining and stars.	1. Give students uploaded information "How To Write A Public Service Announcement That Is Worth Airing, Worth Hearing, And Worth Writing!". Read through first section together, modeling how to underline familiar information, and how to star new information. 2. Point out familiar slogans from familiar PSA's, such as "This is your brain...this is your brain on drugs. Any questions?" Ask why they remember PSA's like that. 3. Give students time to read the rest of the article and do coding. 4. Have a class discussion on common points.
Standards: CCSS.ELA-LITERACY.RST.11-12.2 : Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. CCSS.ELA-LITERACY.RST.11-12.5 : Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. CCSS.ELA-LITERACY.RST.11-12.10 : By the end of grade 12, read and comprehend science/technical texts in the grades 11—CCR text complexity band independently and proficiently.				

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50 mins	<p>PLANNING > PLANNING THE WRITING: Ability to develop a line of thought and text structure appropriate to the task.</p>	<p>STORYBOARD PLAN FOR PSA</p> <p>1. You will make a storyboard plan that has the main points you will make in your PSA.</p>	<p>Completed storyboard to serve as outline for PSA.</p>	<p>1. Have students read Storyboarding Instructions 101 from link below.</p> <p>2. Model storyboarding as though it is a comic strip. Add a sentence for each main point and evidence in each box. A pic may be added if you choose to add a visual image for each point.</p> <p>3. Give students time to develop a short story board in a flow chart type format in which they put the main points they will make in each box.</p>
<p>Standards:</p> <p>CCSS.ELA-LITERACY.WHST.11-12.2A : Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>CCSS.ELA-LITERACY.WHST.11-12.2B : Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p>				
<p>Additional Attachments:</p> <p>🔗 Rock Your World - Student Instruction on How to Write a PSA</p> <p>🔗 Lesson and steps for completing a storyboard</p> <p>🔗 Storyboarding Instructions 101 for Student</p>				
30 mins	<p>DEVELOPMENT > INTRODUCTORY PARAGRAPH: Make an opening statement that will be a clear statement of the issue being addressed.</p>	<p>OPENING STATEMENT OF PUBLIC SERVICE ANNOUNCEMENT</p> <p>Develop an effective and engaging opening statement for your public service announcement that will state what environment and animal is being affected and by whom. Include a visual to be used prior or during your opening statement that will grab the attention of your audience.</p>	<p>Meets expectations if:</p> <ul style="list-style-type: none"> • Hook is engaging and relevant. • Opening statement is specific, well articulated, and the actual topic of the public service announcement. • An included visual grabs the attention of the audience and is relevant to the opening statement. 	<p>*This tool should be used with students who already know their thesis, not as a tool to develop one.</p> <p>1. Using the handout, do a think aloud in which you walk through the steps to develop an introduction. Think about several hooks, and chose the best one (emphasizing that the first idea isnt always the best).</p> <p>2. Allow students to complete the handout independently.</p> <p>3. Give students time to find or create a visual that will be used prior or during the opening statement to grab audience attention.</p> <p>4. Finish with a share, either class wide or between partners.</p>
<p>Standards:</p> <p>CCSS.ELA-LITERACY.CCRA.W.5 : Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.</p> <p>CCSS.ELA-LITERACY.CCRA.W.4 : Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>				

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	Additional Attachments:  Ways to Write and Introduction or Opening Statement			
1 hr	DEVELOPMENT > BODY PARAGRAPHS: Explain points of human impact on animal life cycles, food webs, or habitat. Support with evidence from text.	WRITING THE PUBLIC SERVICE ANNOUNCEMENT BODY You will now use your outline and storyboard to write your Public Service Announcement.	Written Public Service Announcement	<ol style="list-style-type: none"> 1. Have students review sample PSA's used in prior tasks. 2. Remind students to consider who their audience will be because that will dictate their formality and tone in writing. 3. Model using an outline or storyboard to write a PSA. 4. Set a time limit that their PSA should end up being. Generally, they do not go over 2 minutes in order to be effective. 5. Remind them that this particular assignment is not a persuasive task. Tell them to present facts and information, and that in and of itself will lead viewers or listeners to draw conclusions. 6. Give students time to write the PSA. <p>*If you choose to do the task prompt demand and alter this module task by having students offer an argument and counterclaims, you will be changing the task to an argumentative/persuasive task. Some PSAs are argumentative. As the instructor, you will need to determine whether this option fits your goals. If you choose to allow the task to become argumentative, an argumentative rubric will need to be used for scoring rather than the informational rubric that is uploaded in this module.</p> <p>*A public service announcement rubric is uploaded in the Task Analysis section of the module if you would like to use it as an additional rubric to address the particular elements of a PSA.</p>
Standards: CCSS.ELA-LITERACY.WHST.11-12.2A : Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. CCSS.ELA-LITERACY.WHST.11-12.2B : Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. CCSS.ELA-LITERACY.WHST.11-12.2C : Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. CCSS.ELA-LITERACY.WHST.11-12.2D : Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers. CCSS.ELA-LITERACY.WHST.11-12.2E : Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic). CCSS.ELA-LITERACY.WHST.11-12.4 : Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.				

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1 hr	<p>REVISION, EDITING, AND COMPLETION > PEER EDITING: Self and Peer Editing of PSA.</p>	<p>EDIT AND REVISE PUBLIC SERVICE ANNOUNCEMENT You will read your PSA to a partner, and discuss any revisions they suggest. Have them name one part they feel was very effective, and one that they feel can be more effective. You will make changes, view your own performance of PSA, and then make further changes.</p>	<p>Revised and edited written PSA, as well as an initial recording or filming.</p>	<ol style="list-style-type: none"> 1. Students will read their PSA to a partner, and discuss any revisions they suggest. Have them name one part they feel was very effective, and one that they feel can be more effective. 2. Students will make changes in the written PSA. 3. Students will then do an audio or video recording of PSA and view it themselves to make further revisions and editing. (Uploaded link below explains how to do in-depth editing in film and audio if that is desired).
<p>Standards:</p> <p>CCSS.ELA-LITERACY.WHST.11-12.5 : Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p> <p>CCSS.ELA-LITERACY.WHST.11-12.6 : Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p>				
<p>Additional Attachments:</p> <p>🔗 Revision and Editing to Film or Audio PSA</p>				
1 hr	<p>REVISION, EDITING, AND COMPLETION > FINAL DRAFT: Ability to submit final piece that meets expectations.</p>	<p>FINAL PUBLIC SERVICE ANNOUNCEMENT You will now finalize your written PSA and visuals. Please review the rubric and make sure you have included all informational parts in your written PSA.</p>	<p>Final written PSA will be scored with the LDC rubric. Optional: If the PSA is performed on audio, visual, etc. a separate rubric may be used for that particular part of the module.</p>	<ol style="list-style-type: none"> 1. Review rubric for LDC Informational writing pieces. 2. If your student is also creating a podcast, radio spot, etc., that may be performed for class or other audience.

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Instructional Resources

No resources specified

Section 4: What Results?

Student Work Samples

No resources specified

Teacher Reflection

Not provided