

Unit Title: Is Your Spot Hot?

Grade: 8

Time: 2-3 Class Periods

Background

Human destruction of habitats through direct harvesting, pollution, atmospheric changes, and other factors is threatening current global stability, and if not addressed, ecosystems will be irreversibly affected.

We are already seeing changes, and if the warming continues, we can expect catastrophic consequences.

Content standards

***State of Michigan High School Content Expectations (HSCE)
Earth Science***

E1.1 Scientific Inquiry

E1.1A Generate new questions that can be investigated in the laboratory or field.

E1.1D Identify patterns in data and relate them to theoretical models.

E1.1E Describe a reason for a given conclusion using evidence from an investigation.

E2.4 Resources and Human Impacts on Earth Systems

E2.4B Explain how the impact of human activities on the environment (e.g., deforestation, air pollution, coral reef destruction) can be understood through the analysis of interactions between the four Earth systems.

***State of Michigan High School Content Expectations (HSCE)
Social Studies***

K1 General Knowledge

K1.3 Understand and analyze temporal and spatial relationships and patterns.

K1.8 Apply social studies concepts to better understand major current local, national, and world events, issues, and problems.

Lesson plan objective

Students will be able to answer the following questions:

- What evidence do we have that global warming exists?
- What possible effects on both the natural environment and human life can be attributed to global warming?

Relevant Vocabulary

Fingerprints

- Events that are direct manifestations of a widespread and long-term trend toward warmer global temperatures as projected by models of a changing climate.

Harbingers

- Events that foreshadow the types of impacts likely to become more frequent and widespread with continued warming.

Materials

Computer with internet access

Outline map of world

Colored pencils

Procedures

1. Students will begin their research by using the website <http://www.climatehotmap.org/index.html> to familiarize themselves with the early warning signs of Global Warming.
2. Students will use the website to investigate *fingerprints* and *harbingers* in different regions of the world.
3. Students will use a blank outline map of the world to record the total number of *fingerprints* and *harbingers* affecting each region. Students will then use their results to draw conclusions regarding which region has

experienced the greatest widespread and long-term trend toward warmer global temperatures.

4. Students will use the results of their investigation to write a persuasive paper predicting which region of the world is at greatest risk in the future, based on the number and type of fingerprints and harbingers present in the region.

Assessment

See attached writing rubric. Assessment for this assignment will focus on voice.

Plot Elements Project

Student Name: _____

Teacher Name: _____

**Total
Points:**

Score Results

A C
B D

LOOK FORS	4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
Cover Page	Uses construction paper and markers for color. Clearly states a name, and title. Is decorative, and appealing to the eye. (4 pts.)	Uses construction paper and markers for color. Clearly states a name, and title. (3 pts.)	Uses construction paper and markers for color. No name and or title is given. (2 pts.)	Looks like something was just put together last minute. Very little time or care was put into this project. (0-1 pts.)
Characters	Page is titled properly, and BOTH definitions are given and correct. Title is unique and catches my attention. All of the main characters are listed. All of the minor characters are listed. (4 pts.)	Page is titled properly, and BOTH definitions are given. All of the main characters are listed. All of the minor characters are listed. (3 pts.)	Page is titled properly, but both definitions are not given. Some of the characters are missing.	Title is non-existent, characters are not listed. (0 pts.)
Setting	Page is titled "setting" and the correct definition is given. Setting is vivid and clear in the readers mind. (4 pts. X 4 = 16 pts.)	Page is titled "setting" and the correct definition is given. (3 pts. X 4 = 12 pts.)	Title or definition is missing. OR the definition is incorrect. 2 pts. X 4 = 8 pts.)	Title and setting are non-existent.



LOOK FORS		4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
	Conflict	<p>Page is labeled "conflict" and the correct definition is given. Conflict is directly related to the climax. The type of climax is stated (man vs. man) with an example.</p> <p>(4 pts. X 2 = 8 pts.)</p>	<p>Page is labeled "conflict" and the correct definition is given. Conflict is directly related to the climax. The type of climax is stated (man vs. man)</p> <p>(3 pts. X 2 = 6 pts.)</p>	<p>Title or definition is missing or incorrect.</p> <p>(2 pts. X 2 = 4 pts.)</p>	<p>There is no conflict.</p> <p>(0 pts. X 2 = 0)</p>
		<p>Order of information matches the purpose of the writing - just enough information is given at just the right time! Pacing is great! (Slows down and speeds up at just the right times!)</p> <p>(4 pts. X 2 = 8 pts.)</p>	<p>Order of information is clear but it is predictable. Pacing is okay. (Sometimes goes too fast or too slow.)</p> <p>(3 pts. X 2 = 6 pts.)</p>	<p>Order of information is random and hard to follow. Pacing is awkward. (The reader feels like he/she is starting and stopping for no logical reason!)</p> <p>(2 pts. X 2 = 4 pts.)</p>	<p>Order of information is very confusing and awkward. There is no sense of pacing. (Confusion and awkwardness keep a sense of rhythm from developing.)</p> <p>(0 pts. X 2 = 0)</p>
	Beginning and End	<p>The beginning of the piece "catches" the reader and the ending provides a strong sense of closure.</p>	<p>The beginning and the ending are appropriate - do not necessarily add to the reader's experience.</p>	<p>The beginning and/or the ending are not developed and do not add to the reader's experience.</p>	<p>The beginning and/or the ending are extremely weak or not present. Neither the beginning or the ending add anything to the reader's</p>

					experience.
		(4 pts.)	(3 pts.)	(2 pts.)	(0 pts.)

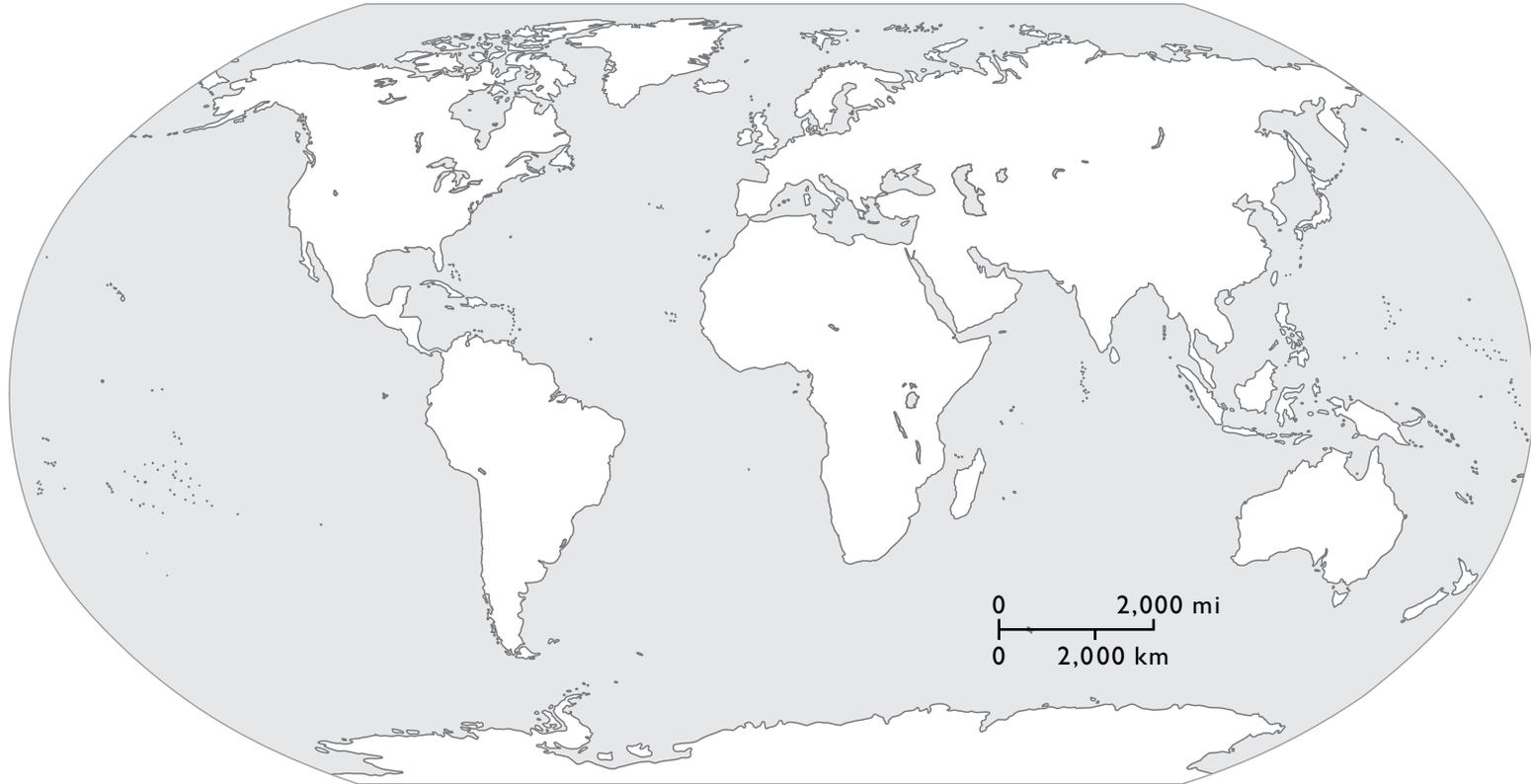
LOOK FORS		4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
Voice W.PR.07.01 W.PR.07.03 W.PR.07.04	Attention to Audience	<p>Writer connects strongly with audience through topic, selection of details, and use of natural, engaging language.</p> <p>(4 pts.)</p>	<p>Writer attempts to connect with the audience in an honest, pleasing, but impersonal manner.</p> <p>(3 pts.)</p>	<p>Writer's connection to audience is minimal when topic, details, and language are examined - one or more are inappropriate for audience.</p> <p>(2 pts.)</p>	<p>Writer does not connect to the audience due to an incorrect or inappropriate use of topic, details, and language.</p> <p>(0 pts.)</p>
	Expressive Language	<p>Writing is consistently expressive, engaging, and sincere. There is a sense of the writer behind the words and the reader feels a strong connection to him/her.</p> <p>(4 pts.)</p>	<p>Writing has sections that are expressive and/or engaging. The reader has a sense of the writer, but does not develop a strong connection with him/her.</p> <p>(3 pts.)</p>	<p>Writing tends to be stiff and impersonal. There may be "flashes" of the writer, but not enough to develop a connection between the reader and the writer.</p> <p>(2 pts.)</p>	<p>Writing is flat and lifeless. There is no sense of the writer behind the words. There is no connection between the reader and the writer.</p> <p>(0 pts.)</p>
	Personal Commitment	<p>Writer seems deeply committed to the topic as seen through the words, details and emotions used.</p> <p>(4 pts.)</p>	<p>Writer seems committed to the topic as seen through the words and details used. However, strong emotions are not evident.</p> <p>(3 pts.)</p>	<p>Writer provides little sense of involvement or commitment as seen through the use/choice of words, and the lack or inappropriateness of details and emotions.</p> <p>(2 pts.)</p>	<p>Writer seems to lack a total sense of involvement or commitment. He/She is just going through the motions of putting words on a page as seen through the careless choice of words and the lack of details and emotions.</p> <p>(0 pts.)</p>

LOOK FORS		4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
<p style="text-align: center;">Word Choice W.ST.07.01</p>	Vocabulary	<p>Words are specific and accurate and catch the reader's attention. Vivid verbs add energy and specific nouns and modifiers add depth. (4 pts. X 2 = 8 pts.)</p>	<p>Words are correct for the most part, but they are ordinary and don't catch the reader's attention. (3 pts. X 2 = 6 pts.)</p>	<p>Words are colorless and vague and don't add anything for the reader - in fact, they might even cause some confusion. (2 pts. X 2 = 4 pts.)</p>	<p>Words are so vague, inadequate or wrong that they frustrate and confuse the reader. (0 pts. X 2 = 0 pts.)</p>
	Language	<p>Words and phrases are natural, effective, and show a complete awareness of topic and audience. All of this adds to the overall meaning. (4 pts. X 2 = 8 pts.)</p>	<p>Words and phrases are ordinary - they are not anything special or unique; however, the words and phrases do not take away from the overall meaning. (3 pts. X 2 = 6 pts.)</p>	<p>Words and phrases are unimaginative, monotonous, and/or inappropriate. Attempts at slang, colorful language, or overused expressions take away from the meaning and show little awareness of topic and/or concern for audience. (2 pts. X 2 = 4 pts.)</p>	<p>Words and phrases are so unimaginative and lifeless that they take away from the meaning and show no awareness of topic and/or concern for audience. (0 pts. X 2 = 0 pts.)</p>
	Imagery	<p>Words are so precise and clear (exactly the right word or figurative language) that they paint pictures in the reader's mind that help to capture and clarify the main idea. (4 pts.)</p>	<p>Words are "correct" and an attempt is made to use figurative language - verbal pictures may be created, but they are not as vivid or as helpful as the ones created at the Exemplary Level. (3 pts.)</p>	<p>Words are vague and clichés and/or slang phrases are overused and do not create helpful mental pictures for the reader. (2 pts.)</p>	<p>Words are so vague they don't even make sense - let alone paint a picture in the reader's mind! (0 pts.)</p>

LOOK FORS		4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
Sentence Fluency W.ST.07.01 W.GR.07.01	Flow/Rhythm	Writing has an effective, easy flow and rhythm. Expressive oral reading is easy and enjoyable. (4 pts. X 2 = 8 pts.)	Writing has a flow but every once in a while there is a break in the rhythm caused by a choppy or awkward sentence. Smooth oral reading is possible. (3 pts. X 2 = 6 pts.)	Writing is not smooth. It gets going and then jerks to a stop. This doesn't happen enough to be labeled choppy, but it is awkward to read orally and is frustrating for reader. (2 pts. X 2 = 4 pts.)	Writing is choppy, awkward, and difficult to follow. Smooth oral reading is almost impossible because of having to stop, go back, and reread multiple times. (0 pts. X 2 = 0 pts.)
	Sentence Structure	Wide variation in sentence structure and length add interest to the text. (Some long and stretchy sentences- some short and snappy) (4 pts. X 2 = 8 pts.)	Some variation in sentence structure is attempted. The attempt at variety is apparent at times, but this does not take away from the text. (3 pts. X 2 = 6 pts.)	<u>Minimal</u> variation is present. Most of the sentences are exactly the same. Periodically a different structure is used, but it appears very artificial. (2 pts. X 2 = 4 pts.)	Sentence patterns are extremely monotonous and could easily put the reader to sleep! (0 pts. X 2 = 0 pts.)
	Connectives	The use of creative and appropriate connectives between sentences and thoughts shows how each relates to, and builds upon, the one before it. (4 pts.)	Connectives are used throughout the text; however, the reader sometimes has to hunt for clues that show how sentences interrelate. (3 pts.)		Endless connectives or a complete lack of connectives create a massive jumble of language. (0 pts.)
	Transitions	Transitions are used consistently and where appropriate, but not overdone. The use of transitions is natural. (4 pts.)	Transitions are used in some places; however, there are not used consistently. Use of transitions seems forced. (3 pts.)		Transitions are not used at all or are totally overdone. It is very clear that an understanding of how to use transitions is missing. (0 pts.)

LOOK FORS		4 Exemplary	3 Accomplished	2 Developing	0 or 1 Beginning
Conventions W.GR.07.01 W.SP.07.01	Punctuation	Strong use of punctuation guides reader through text. (4 pts.)	Correct end-of-sentence punctuation, internal punctuation may sometimes be incorrect. (3 pts.)	Many end-of-sentence errors; internal punctuation contains frequent errors. (2 pts.)	Basic punctuation tends to be omitted, haphazard, or incorrect. (0 pts.)
	Spelling	Correct spelling, even difficult words. (4 pts.)	Spelling is usually correct, especially common words. (3 pts.)	Spelling errors frequently distract the reader; misspelling of common words often occurs. (2 pts.)	Frequent spelling errors take away from meaning and readability. (0 pts.)
	Paragraphs	Paragraph breaks are used appropriately and help to clarify and strengthen the meaning of the writing (4 pts.)	Paragraph breaks are used; however, some errors are made - too many paragraph breaks or not enough paragraph breaks. (3 pts.)		Paragraph breaks are nonexistent or so frequent that they cause confusion and take away from the organization and meaning of the text. (0 pts.)
	Over-All Effect	Correct conventions contribute clarity and style. No need for editing! (4 pts.)	Occasional errors in conventions, but problems are not severe enough to distort meaning or confuse the reader. Some editing is necessary. (3 pts.)	Errors in conventions do not block meaning, but they do distract the reader. Substantial need for editing. (2 pts.)	Very frequent errors greatly interfere with meaning. Extensive need for editing. (0 pts.)

THE WORLD



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