



The Minnesota Literacy Council created this curriculum with funding from the MN Department of Education. We invite you to adapt it for your own classrooms.

Advanced Level (CASAS reading scores of 221-235)

The Environment: Week 1 of 3

Unit Overview

This is a 3-week unit in which learners discover the significance of the 3 R's; the consequences of climate change; and the pros/cons of nuclear energy. Learners practice categorizing and writing evidence-based essays. They explore count/non-count nouns and the use of "because/because of" to express cause and "so/therefore" to express effect.

Focus of Week 1

- **Reading an article on climate change.**
- **Interpreting data and statistics** on climate change.
- Reading, writing, and speaking **scientific vocabulary in a variety of forms, or parts of speech.**
- **Debating the issue of who should pay for the consequences of climate change** with an assigned stance.
- **Writing a short essay** using evidence.
- Defining and using **academic transition words.**

The Environment Unit: Week 1, Monday

Objectives <i>Learners will be able to...</i>	Materials
<p>Literacy: read an article on climate change.</p> <p>Listening/speaking: pronounce vocabulary relevant to the sciences, understanding that with many, if different syllables are stressed the words have different functions.</p> <p>Transition & Critical Thinking: use dictionaries to infer words of similar connotation but different parts of speech from those on their Focus Word list.</p> <p>Grammar: determine when to use each form of Focus Word (e.g. verb, noun, adj., etc.).</p>	<p>Make Student Copies</p> <ul style="list-style-type: none"> • Handout: Word Generation Unit 1.08, pp. 43, 44 (copy back to back to save paper) • Handout: Climate Change Text Questions • Handout: Focus Word Chart <p>Make Single Copies or Reference</p> <ul style="list-style-type: none"> • Handout: Word Generation Teacher Ed Unit 1.08, p. 43 • Handout: Focus Word Chart: Suggested Answers <p>Props, Technology, or Other Resources</p> <ul style="list-style-type: none"> • A projector • highlighters • a set of dictionaries

Lesson Plan

Warm up for today's Lesson

Description: Small Group Word Webs for the words CLIMATE CHANGE

Materials/Prep: notebooks

Activity 1: Listening/Speaking

Description: Read through the Focus Words as learners chorally repeat, stressing the stressed syllables of multisyllabic words.

Materials/Prep: Handout: **Word Generation Unit 1.08, p 44**

Activity 2: Literacy

Description: Read the passage, "Global Warming: What Should Be Done?"

Materials/Prep: Handout: **Word Generation, Unit 1.08, p. 43**; Handout: **Climate Change Text Questions**; highlighters

Activity 3: Grammar/Literacy/Critical Thinking

Description: Fill in the Forms/Examples Chart in pairs or small groups.

Materials/Prep: Handout: **Focus Word Chart**; American English student dictionaries

Activity 4: Checking for Understanding

Description: Volunteers share example sentences containing forms of the Focus Words with the whole class.

Materials/Prep: a projector

Teacher Directions: Warm up: Word Webs

Learners get into small groups and create word webs for the words CLIMATE CHANGE, writing down the words, ideas and questions that they associate with the words. After about 5 min, a representative from each small group shares out with the whole class.



Teacher Directions: Activity 1: Listening/speaking –Materials: Handout: *Word Generation, Unit 1.08, p. 43, 44*; highlighters (optional)



Step 1: Context

Project a copy of page 43 of *Word Generation Unit 1.08*. Locate the focus words at the top of the page. Read through the Focus Words one-by-one, pointing out the stressed syllable of each multisyllabic word. For example, the first word is “attribute” (v.)

It is pronounced with a stressed second syllable.

1. attribute (v.)
2. (in someone’s) interest (n.)
3. project (v.)
4. relocate (v.)
5. statistics (n. plural)

Step 2: Guided Practice

Learners chorally repeat after instructor, clapping on stressed syllable or tapping a table/thigh.

Learners denote which syllable is stressed by copying the words and placing a mark above the letters or by highlighting the stressed sounds/syllable with highlighters (as demonstrated within the plan).

Note: The parts of speech for each Focus Word are as they appear within the text. Inform learners that some of the vocabulary can have different parts of speech if stressed differently, such as attribute and project. Interest, on the other hand, does not change in stress/pronunciation when used as a verb.

Unfortunately, stressing the wrong syllable is often cause for misunderstandings.

Step 3: Partner Practice



Pass out **Word Generation, Unit 1.08, p. 44** (p. 43 is on the back and will be used in the next activity). Elicit from learners what additional words are in this list (alternative parts of speech for *attribute, interest, and project*). Learners silently read the definitions and sample sentences of the focus words.

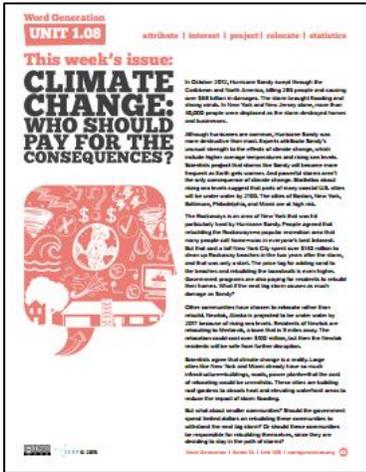
Note: Step 2 is a literacy activity and not a pronunciation exercise. For this reason, learners need to follow the text and not the instructor. You can explain to learners that they may grow in their appreciation for literature by listening to a passage, but they will not improve their reading or spelling skills by simply listening.

Learners pair up and take turns reading the Focus Words to one another. Learners may give each other feedback on whether or not the correct syllable is being stressed. If pronunciation/stress is in question, call upon the instructor for guidance. This should take no more than a few minutes.

Step 4: Turn and Talk

Learners continue to work with partners and answer the **turn and talk** questions on *Word Generation* p. 44.

Teacher Directions: Activity 2: Literacy –Materials: Handout: “Climate Change: Who Should Pay for the Consequences?” Word Generation, Unit 1.08, p.43 (continuing with the same handout); Handout: Climate Change Text Questions; highlighters



Step 1: Independent Reading

Learners independently read through the passage “Climate Change: Who Should Pay for the Consequences?” and should be encouraged to question the text as they read. Since they are reading reproducible documents, they should take advantage of the opportunity to write in the margins and to highlight or underline confusing vocabulary. Learners should strive for fluency at this point and attempt to use context clues instead of their dictionaries as much as possible.

Step 2: Guided Reading

Listen to the instructor read the passage aloud while following along to the text.

Before reading, inform learners to:

- 1) Follow the text, not your face--no matter how animated, concerned, etc. you might be!

- 2) Listen closely for the pronunciation of words they highlighted or underlined.
- 3) If they questioned the text, did the second reading help to answer any or did some new questions arise?

Step 3: Class Discussion

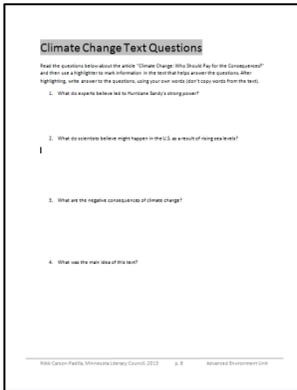
Discuss the text. Draw the answers to the following questions out of the learners; DO NOT tell the answers to the learners!

What vocabulary was so confusing that it hindered, or blocked, comprehension of a large part of the text? Are there any context clues or parts of the words themselves that can help in understanding?

Step 4: Text Questions

Pass out highlighters or check that all students have pens and then pass out **Climate Change Text Questions**. Instruct students to reread the text independently and to highlight or underline the parts of the text that answer the questions. After highlighting, students write answers to the questions on their handouts.

Circulate and make note of students to call on to share their answers with the class. As students finish writing answers, pair them up to compare answers. Once everyone has finished, call on students to share their answers with the class.



Teacher Directions: Activity 3: Grammar, Literacy, & Critical Thinking –Materials: SERP: Word Generation, Unit 1.08, p. 58; American English student dictionaries; a projector

Focus Word Chart				
"Climate Change: Why It Should Pay for Its Services"				
attribution	(1) "Climate that... attribution... responsibility... causing something"			
inferred	(1) "The main... inferred... result"			
principal	(1) "The... principal... cause"			
released	(1) "The... released... issue"			
attribution	(1) "The... attribution... cause"			

Focus Word Chart: Suggested Answers				
"Climate Change: Why It Should Pay for Its Services"				
attribution	(1) "Climate that... attribution... responsibility... causing something"	attribution	What is the... attribution... result	
inferred	(1) "The main... inferred... result"	inferred	The... inferred... result	
principal	(1) "The... principal... cause"	principal	The... principal... cause	
released	(1) "The... released... issue"	released	The... released... issue	
attribution	(1) "The... attribution... cause"	attribution	The... attribution... cause	

Student Copy

Teacher Copy

Step 1: Instructor Demonstration

Place a copy of the Definitions/Forms/Examples Chart on a projector and demonstrate “attribute” for learners. Be very explicit in your instructions and show learners what each column of the chart represents (i.e. vocabulary, definitions & parts of speech, other possible parts of speech, and examples of usage in sentences). It is suggested that the instructor use the teacher copy from the teacher’s edition of Word Generation as a personal reference only.

Step 2: Pair Work

Learners partner up and work together to find the Focus Words in classroom dictionaries. Learners may also use electronic dictionaries, but must be familiar with how the parts of speech are denoted on their personal devices.

If learners copy an example sentence from the dictionary, encourage them to add one of their own as well.

Teacher Directions: Activity 4: Checking for Understanding

Volunteers approach the projector and share one or two of their example sentences with the class as the instructor facilitates corrections.

Remind learners as they work, if the term doesn't have the root word, it isn't a form of the word. If they are only finding a prefix or suffix, but not the root, it is a different word. The first step in identifying forms is to be aware of the roots, or base forms. For example, if "project" is the root, then every form of the word must contain "project," not only "pro."

This week's issue:

CLIMATE CHANGE: WHO SHOULD PAY FOR THE CONSEQUENCES?



In October 2012, Hurricane Sandy swept through the Caribbean and North America, killing 286 people and causing over \$68 billion in damages. The storm brought flooding and strong winds. In New York and New Jersey alone, more than 40,000 people were displaced as the storm destroyed homes and businesses.

Although hurricanes are common, Hurricane Sandy was more destructive than most. Experts **attribute** Sandy's

unusual strength to the effects of climate change, which include higher average temperatures and rising sea levels. Scientists **project** that storms like Sandy will become more frequent as Earth gets warmer. And powerful storms aren't the only consequence of climate change. **Statistics** about rising sea levels suggest that parts of many coastal U.S. cities will be under water by 2100. The cities of Boston, New York, Baltimore, Philadelphia, and Miami are at high risk.

The Rockaways is an area of New York that was hit particularly hard by Hurricane Sandy. People agreed that rebuilding the Rockaways—a popular recreation area that many people call home—was in everyone's best **interest**. But that cost a lot! New York City spent over \$140 million to clean up Rockaway beaches in the two years after the storm, and that was only a start. The price tag for adding sand to the beaches and rebuilding the boardwalk is even higher. Government programs are also paying for residents to rebuild their homes. What if the next big storm causes as much damage as Sandy?

Other communities have chosen to **relocate** rather than rebuild. Newtok, Alaska is projected to be under water by 2017 because of rising sea levels. Residents of Newtok are relocating to Mertarvik, a town that is 9 miles away. The relocation could cost over \$100 million, but then the Newtok residents will be safe from further disruption.

Scientists agree that climate change is a reality. Large cities like New York and Miami already have so much infrastructure—buildings, roads, power plants—that the cost of relocating would be unrealistic. These cities are building roof gardens to absorb heat and elevating waterfront areas to reduce the impact of storm flooding.

But what about smaller communities? Should the government spend limited dollars on rebuilding these communities to withstand the next big storm? Or should these communities be responsible for rebuilding themselves, since they are deciding to stay in the path of storms?

CLIMATE CHANGE: WHO SHOULD PAY FOR THE CONSEQUENCES?



attribute | interest | project | relocate | statistics

USE THE FOCUS WORDS *and alternate parts of speech

attribute (*verb*) to attach; to associate

➡ *Sample Sentence:* George **attributes** his basketball skills to the hours he spends playing HORSE with his older brother.

🗣️ *Turn and Talk:* Think of something that you are good at. To what or to whom do you **attribute** your success? For example: I **attribute** my success at playing poker to lessons from my great-uncle Jack.

***attribute** (*noun*) a good or useful quality

➡ *Sample Sentence:* One **attribute** of a successful swimmer is the discipline to practice every day.

🗣️ *Turn and Talk:* What is a typical **attribute** of a good student?

(**In someone's**) **interest** (*idiom*) helpful to someone; for the benefit of someone

➡ *Sample Sentence:* Freedom of speech is **in the interest** of all citizens.

🗣️ *Turn and Talk:* If you are having a conflict with someone you care about, what action might be **in your best interest**?

***interest** (*verb*) to make someone curious; to attract

➡ *Sample Sentence:* The stars **interested** Juliet, so it was no surprise that she wished to attend Space Camp.

🗣️ *Turn and Talk:* Why does your dream career **interest** you?

relocate (*verb*) to move to a new place

➡ *Sample Sentence:* After a tornado, sometimes people choose to **relocate** rather than rebuild.

🗣️ *Turn and Talk:* If you were given the opportunity to **relocate** anywhere in the world, where would you move and why?

project (*verb*) to predict; to estimate a future amount or direction

➡ *Sample Sentence:* Scientists **project** that temperatures will keep rising if we continue to ignore the impact of our activities.

🗣️ *Turn and Talk:* Based on your current interests, what do you **project** you will be doing when you're 20 years old?

***project** (*noun*) a task that requires a lot of time and effort

➡ *Sample Sentence:* Last year the sixth grade art class **project** was to paint a new mural on the schoolyard's wall.

🗣️ *Turn and Talk:* What **project** around your school would you like your class to be involved in?

statistics (*noun*) numerical information

➡ *Sample Sentence:* According to popular **statistics**, the average person consumes four sodas a day.

🗣️ *Turn and Talk:* Do you think that **statistics** about obesity make people more likely to watch what they eat?

Focus Word Chart

“Climate Change: Who Should Pay for the Consequences?”

Word	Meaning	Forms	Examples of Use	Notes
attribute	(v.) – to say that someone is responsible for doing or saying something			
interest	(n.) – an advantage for someone; a good result			
project	(v.) – to predict; to estimate the size or amount of something in the future			
relocate	(v.) – to move to a new place			
statistics	(n.) – information shown in numbers			

Focus Word Chart: Suggested Answers

“Climate Change: Who Should Pay for the Consequences?”

Word	Meaning	Forms	Examples of Use	Notes
attribute	(v.) – to say that someone is responsible for doing or saying something	attributes attributed attributing attribute (n.) attribution	Mary attributed her improved reading skills to her teacher.	
interest	(n.) – an advantage for someone; a good result	interests interesting (adj.) interested (adj.) interestingly (adv.)	They skipped the first few questions in the interest of saving time.	This meaning is used with the phrase <i>in someone’s interest</i> or <i>in the interest of something/someone</i> .
project	(v.) – to predict; to estimate the size or amount of something in the future	projects projected projecting project (n.) projection (n.)	We project a 5% increase in student attendance next year.	
relocate	(v.) – to move to a new place	relocates relocated relocating relocation (n.)	The school relocated a few blocks away.	
statistics	(n.) –information shown in numbers	statistic statistical (adj.) statistically (adv.)	Some statistics we can measure in education include attendance and test scores.	

The Environment Unit: Week 1, Tuesday

Objectives <i>Learners will be able to...</i>	Materials
<p>Literacy: read information about climate change, infer and make predictions.</p> <p>Listening/speaking: discuss a math problem addressing water consumption</p> <p>Listening/speaking: dictate sentences to classmates and listen to others in order to write comprehensive sentences.</p> <p>Transitions & Critical Thinking: address the question, “What are some strategies that communities and governments could adopt to reduce water consumption?”</p> <p>Grammar: identify and define academic transition words.</p>	<p>Make Student Copies</p> <ul style="list-style-type: none"> • Handout: Word Generation Unit 1.08, p.45 • Handout: Memory Cards (one set per 3-4 players) • Handout: Effective Academic Writing, pp. 163-164 • Handout: Word Generation Unit 1.08, p.43 (from Monday) <p>Make Single Copies or Reference</p> <ul style="list-style-type: none"> • Handout: Climate Change Sentence Dictation (single sheet can be passed from reader to reader, no need for multiple copies) • Handout: Climate Change Sentence Dictation (Parts of Speech Answers) • Handout: Find Your Match Cards (one set per class) <p>Props, Technology, or Other Resources</p> <ul style="list-style-type: none"> • Computers with Internet access (optional)

Lesson Plan

Warm up for today’s Lesson (Review of vocabulary)

Description: Find Your Match or Memory (Dependent on class size—Find Your Match is suitable for 9-12 learners; whereas Memory is suitable for smaller classes of 4-8.)

Materials/Prep: Handout: **Find Your Match/Memory Cards**

Activity 1: Grammar

Description: Introduce academic transition words and return to yesterday’s article to find examples of their usage.

Materials/Prep: Handout: **Effective Academic Writing, pp. 163-164; Word Generation Unit 1.08, p.43 (from Monday)**

Activity 2: Literacy, Listening/speaking & Critical Thinking

Description: Read “Problem of the Week” and address the Math Discussion Question.

Materials/Prep: Handout: **Word Generation, p. 45**

Activity 3: Listening/speaking & Literacy

Description: Complete a learner-given sentence dictation.

Materials/Prep: Handout: **Climate Change Sentence Dictation**

Activity 4: Checking for Understanding

Description: Correct sentence dictation at the board with learner volunteers completing sentences that were dictated to them. Underline and label parts of speech of Focus Words.

Materials/Prep: None

Teacher Directions: Warm up: Find Your Match Cards/Memory

attribute (v)	To say that someone is responsible for doing or saying something
interest (n)	An advantage for someone
relocate (v)	To move to a new place
project (v)	To predict; to estimate
statistics (n)	Information in numbers
attribute (v)	To say that someone is responsible for doing or saying something

Nikki Carson-Padilla, Minnesota Literacy Council, 2013 p. 18 Advanced Environment Unit

If the class consists of at least 10 learners, consider playing the **Find Your Match** version of the warm-up by giving the first 10 people to walk into the room a card with either a Focus Word or a definition on it. If there are an odd number of learners, the instructor will have to participate. Ask the learners to circulate the room and mingle until they find their matches and to stay together once they've found one another. As other learners enter the room, ask them to assist those who are having trouble finding their matches. Have pairs report out to the whole class, so everyone can determine whether the matches are accurate or not. ***What were the key words in the definition that told the two people they were a match?***

If the class consists of fewer than 10 learners, consider playing the **Memory** version of the warm-up by making one or two sets of the cards to be placed face down on a table in two rows of five. Learners take turns turning over two cards at a time, being careful to keep them in the exact same position and making sure all players have an opportunity to view the two cards before turning them back over. If a learner turns over a Focus Word and its definition, he/she can take the pair. The learner with the most pairs wins!

Note: You may also play this version with a larger class, but it will require more prep, because every 3-4 learners must have a set of cards.

Teacher Directions: Activity 1: Grammar –Materials: Handout: Effective Academic Writing, pp. 163-164; Word Generation Unit 1.08, p. 43 (p. 7 of this document in Monday’s lesson)

Step 1: Distribute p. 163-164 to students. Explain that students may keep and use this chart for reference throughout the week.

Step 2: Go through each section as a class and introduce the connector words described under each category (Giving Examples, Showing Contrast, etc.) Have students read the example sentences and discuss as a class. (Note: Don’t get bogged down too much in each individual example—it is most important for students to understand the general meaning of each type of connector.)

Step 3: Have students return to *SERP p. 43* (distributed in Monday’s lesson—you may need to make additional copies for students who weren’t in attendance). Instruct students to read it again and underline examples of connector words used in the article. (Find one or two as a group for an example, and then have students complete the rest.) After students complete this activity, come back together as a group and discuss each connector example. Which category does each connector fit into? (Showing Contrast, Giving Reasons, etc.)

Step 4 (optional extension): If there is extra time, have students write example sentences in their notebooks using one connector word from each category, and share with the group.



Teacher Directions: Activity 2: Literacy, Listening/speaking & Critical Thinking-Materials *Word Generation, Unit 1.08, p. 45*

Step 1: Context

The teacher reads the first paragraph and questions aloud as the whole class follows along. Learners should save their questions for later and focus on figuring out the main idea.

Instruct learners to underline the following words in the text: *precipitation, flooding, drought, famine, and conservation*. Then ask learners to read the text again, looking carefully for clues about the meaning of these words.

Step 2: Think-Pair-Share

Learners discuss with a partner what their best guess is for the meanings of the words. Listen carefully as students talk and call on students with good definitions to share with the class.

Step 3: Think-Pair-Share

Learners read options 1 and 2 and think about their responses, then pair up again and share their ideas. Teacher should circulate to address questions as necessary.

Note: if learners choose option 1 and finish quickly, encourage them to begin to answer option 2 by designing a question and writing the X and Y axis labels for a line plot.

Step 4: Whole Class Discussion

The teacher reads the Math Discussion Question aloud. Ask learners to underline the question “What are some strategies and communities and governments could adopt to reduce water consumption in the United States?” It may be necessary to explain word *consumption*. Inform the class that there is no one correct answer, but it is necessary to base any suggestions on knowledge of American lifestyles and laws.

Give learners a couple minutes to brainstorm ideas in their notebooks and then hold a class discussion. Encourage learners to elaborate by asking, “Tell me more.” and “What makes you say that?”

Climate Change Sentence Dictation

INSTRUCTIONS: Volunteers to read in front of the class and read a sentence so those listening can write it down in their notebooks. When you dictate a sentence to the class, leave a space in your notebook, numbering it so as not to lose track of which sentence is next. Use a marker to underline the words in the sentence you read.

1. Many people contribute to climate change.
2. Severe droughts will get worse in the coming years.
3. Statistics show that the average American uses about 100 gallons of water per day.
4. Using water carefully is of international importance.
5. Droughts and famines force people to relocate.
6. The dramatic decline in water resources that we lose most save money.
7. The scientific report confirms that sea levels are rising.
8. Should people who live in coastal areas relocate?

Nikki Carson-Padilla, Minnesota Literacy Council, 2013 p. 15 Advanced Environment Unit

Teacher Directions: Activity 3: Grammar, Literacy & Listening/speaking –Materials: Handout: Global Warming Sentence Dictation

Step 1: Dictate to Class

Individual students volunteer to stand in front of the class and read sentences so those listening can write them down in their notebooks. If a learner dictates a sentence to the class, remind him/her to leave a space in

his/her notebook, numbering it so as not to lose track of which sentence is next. (In other words, when students dictate, they are not responsible for writing down the sentences that they read. Tell them they will get their sentences during corrections.)

Convey the following rules for dictation before beginning:

1. Listeners should **not interrupt** mid-sentence. This is discouraging to the reader and rude to fellow classmates as well.
2. Listeners should **not have side conversations**.
3. Readers need to **read with teacher voices**. Every person in the room should be able to hear them.
4. Readers should **read slowly, but naturally**, not stopping after each word and not reading punctuation signs.
5. Readers should repeat each sentence for **a total of three readings**.

Step 2: Focus Word Practice

Learners underline the Focus Words in each dictated sentence in their notebooks. Label the part of speech (e.g. verb, noun, adjective, etc.) above each.

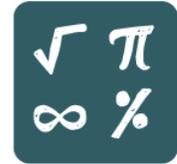
Teacher Directions: Activity 4: Grammar/Checking for Understanding

Correct sentence dictation at the board with learner volunteers completing sentences that were dictated to them. Underline and label parts of speech of Focus Words. Teacher should serve as facilitator of discussion of what was done well and what could be changed or added to improve each sentence at the board (i.e. spelling, word order, punctuation, etc.). Correct parts of speech of Focus Words are provided for teacher reference.

attribute (v)	To say that someone is responsible for doing or saying something
interest (n)	An advantage for someone
relocate (v)	To move to a new place
project (v)	To predict; to estimate
statistics (n)	Information in numbers

CLIMATE CHANGE: WHO SHOULD PAY FOR THE CONSEQUENCES?

UNIT 1.08



attribute | interest | project | relocate | statistics

DO THE MATH

Many people **attribute** hurricanes and heat waves to climate change. But those are not the only effects. Climate change can cause more precipitation than usual in some places. This extra rain or snow can lead to flooding and the need to strengthen buildings and shorelines. Other areas will receive far less precipitation than normal. Areas experiencing drought, the prolonged absence of water, may have famines (lack of food) that force people to **relocate** to other areas. Experts **project** that severe droughts will get worse in the coming years, making water conservation more than just a national **interest**, but an international priority.

Option 1: About 30% of home water usage can be **attributed** to toilet flushes. Toilets installed before 1992 use about 5 gallons of water per flush. Newer toilets use about 1.5 gallons per flush. If people flush the toilet an average of 5 times a day, about how many gallons of water could one person save in one year by using a newer toilet?

- A. 800
- B. 2,700
- C. 6,400
- D. 9,100

Option 2: Statistics show that it takes 1,000 gallons of water to feed one American for one day, which is much higher than the global average. The high water use can be largely **attributed** to meat production. Consider this fact: Between feeding the growing cow and processing the meat, about 630 gallons of water go into one hamburger.

Develop a quantitative question that **interests** you about your classmates' meat consumption. For example, your question could be, "How many hamburgers do you eat per week?" Record your classmates' responses on a line plot and describe the range, median, and mean of your data set.



Discussion Question: Many **attribute** the severity of California's long-term drought to climate change. Californians have taken steps to reduce their water waste, like fixing leaks at home and using brooms instead of water hoses to clean sidewalks. Californians may be decreasing water consumption, but **statistics** show that the average American uses about 100 gallons of water per day. This is twice the amount an average European uses, and more than 50 times the amount residents of sub-Saharan Africa use. Since scientists **project** more frequent and severe droughts, what are some strategies that communities and governments could adopt to reduce water consumption in the United States?



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Climate Change Sentence Dictation

INSTRUCTIONS: Volunteer to stand in front of the class and read a sentence so those listening can write it down in their notebooks. When you dictate a sentence to the class, leave a space in your notebook, numbering it so as not to lose track of which sentence is next. Use a teacher voice! Repeat twice, so the sentence is read a total of three times.

1. Many people attribute heat waves to climate change.
2. Experts project severe droughts will get worse in the coming years.
3. Statistics show that the average American uses about 100 gallons of water per day.
4. Using water carefully is of international interest.
5. Droughts and famines force people to relocate.
6. The class projects that families that eat less meat save money.
7. The statistical report confirms that sea levels are rising.
8. Should people who live in coastal areas relocate?

Climate Change Sentence Dictation—Parts of Speech Corrections **Teacher Reference**

1. Many people attribute (v.) heat waves to climate change.
2. Experts project (v.) severe droughts will get worse in the coming years.
3. Statistics (n.) show that the average American uses about 100 gallons of water per day.
4. Using water carefully is of international interest (n.).
5. Droughts and famines force people to relocate (v.).
6. The class did a project (n.) to see learn ways to save water.
7. The statistical (adj.) report confirms that sea levels are rising.
8. Should people who live in coastal areas relocate (v.)?

The Environment Unit: Week 1, Wednesday

Objectives <i>Learners will be able to...</i>	Materials
<p>Literacy: read graphs on carbon dioxide emissions and write 2-3 sentences summarizing the information.</p> <p>Transitions & Critical Thinking: provide evidence for a stance even if it is not of their personal opinion.</p> <p>Listening/speaking: orally share a stance drawn and the evidence determined to support the stance with the entire class.</p> <p>Grammar: identify and use academic transition words.</p>	<p>Make Student Copies</p> <ul style="list-style-type: none"> • Handout: <i>Word Generation</i>, p. 46 <p>Make Single Copies or Reference</p> <ul style="list-style-type: none"> • Handout: “Debating the Issue,” <i>Word Generation</i>, p. 47 • Handout: Teacher Prompts for Flyswatter Game <p>Props, Technology, or Other Resources</p> <ul style="list-style-type: none"> • Two flyswatters

Lesson Plan

Warm up for today’s Lesson (Review of vocabulary)

Description: Flyswatter Game to review vocabulary from this unit

Materials/Prep: Teacher prompts for flyswatter game; two flyswatters

Activity 1: Literacy, Listening/speaking & Critical Thinking

Description: “Debating the Issue”

Materials/Prep: Handout: *Word Generation*, p. 47 (cut into pieces)

Activity 2: Literacy, Listening/speaking & Critical Thinking

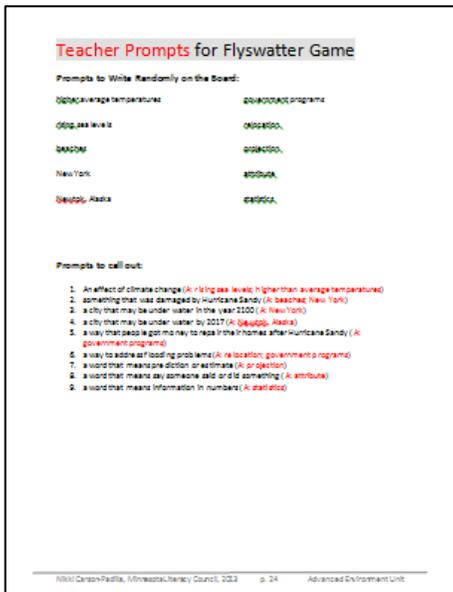
Description: Science Activity: The experiment was already completed by others; learners answer questions to draw on the conclusion.

Materials/Prep: Handout: *Word Generation*, p. 46

Activity 3: Grammar & Checking for Understanding (Exit Tickets)

Description: Draw slips of paper that begin with clauses that show no effect and complete them with logical “because” or “because of” clauses before leaving class.

Materials/Prep: Handout: **Because/Because of Prompt Slips**



Teacher Directions: Warm up: Flyswatter Game-Materials: Handout: Teacher prompts for flyswatter game and 2 flyswatters

Set up:

Write each “correct swat” for the flyswatter game randomly around the classroom board, but within student reach. If learners with disabilities, such as those who use wheelchairs or other mobility supports play the game, lower all correct responses for accessibility. Make sure there is plenty of space between each “correct swat,” so it isn’t too crowded and it is obvious which response they are swatting. If board space is too limited, consider using a large open wall space. If this is your only option, you will need to write the correct swat responses on sheets of paper and tape them up.

How to play:

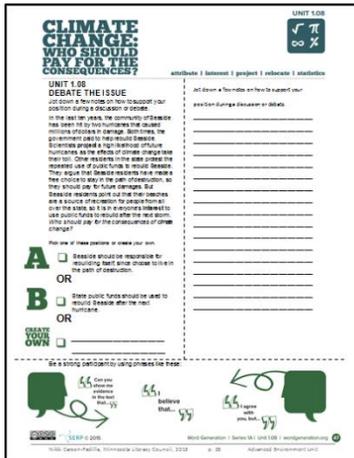
Divide the class into two teams and assign one learner from each team to hold a flyswatter. Inform the teams that they must speak only in English during game time. If they choose to shout out the location of the paper, the other team’s player may also hear and get to it first, so it is probably best to remain quiet or develop a secret strategy for advising one another. Read a prompt aloud and ask the flyswatter holders to swat the correct answer. Afterwards, the two players go to the back of their team lines and two new players from each team come forward as the teacher reads a new prompt.

How to score:

Whoever swats the correct answer first and leaves the flyswatter on the answer gets a point for his/her team. If a learner removes the flyswatter from the correct answer and the learner from the other team swats it, the team with the flyswatter on the correct answer gets the point, not simply the team that touched it first. If both teams swat the correct answer at nearly the same time, the team with the flyswatter on the bottom gets the point. (In other words, the team that swats first, but with certainty, gets the point.)

Note: A few questions have more than one acceptable answer. If this is the case, ask learners to explain the reason why they chose the answer. Make sure everyone is actively listening and thinking critically!

**Teacher Directions: Activity 1: Listening/speaking & Critical Thinking –Materials:
Handout: *Word Generation*, p. 47 “Debate the Issue”**



Make several copies and then cut out the first paragraph and stance A and B. These will be drawn by small groups as assigned positions/stances.

Step 1: Context

Explain to learners that addressing climate change is **a controversial issue** because people don't agree about who is responsible for the costs. Something that is controversial is a public argument.

Step 2: Assign Stances

Learners pair up or form small groups of no more than 4. Randomly give the groups stance A or B. Learners should be **unaware** of the specific positions at this point. Once all groups have a stance, ask one person per group to be the designated reader and to slowly, loudly and clearly read the first paragraph and the stance aloud to his/her group. *Even if members of the group disagree with what is stated, that is the stance the group must support!*

Step 3: Group Discussion/Preparation

Pairs or small groups work together to choose at least two pieces of evidence to support their stance. Evidence does not have to be researched for today's in-class mini-debates. "Evidence" should be any fact from daily life or from in-class reading that supports the group's stance. Be sure learners understand that statements such as, "We believe this is true," or "We support this," are not considered evidence. Evidence *shows* that something is true or provides *an example* of support. If the statement, "We believe this is true," is followed by "because..." and the reason is strong and logical, the team making that statement will get credit. If not, no evidence was provided and no credit will be given to that group.

Step 4: Report Out

One person from each group stands and reports out its stance and evidence.

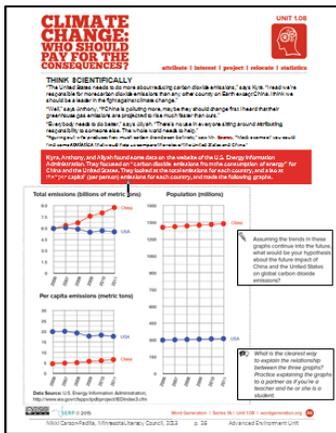
As a class, discuss:

- Which team had the strongest evidence?

“Why would I want to defend a position that I don’t personally support?” A couple of responses might be:

- To learn **empathy** (to be understanding of how it would feel to be in the opposition’s shoes)
- To **“play devil’s advocate”** (to know what attacks might come at your personal stance in the future and to be prepared for them)

- Did your personal opinion change in any way, or if you didn't have one, do you now?
- Do you have a new appreciation or any empathy for another view on global warming?



Teacher Directions: Activity 2: Literacy, Listening/speaking & Critical Thinking –Materials: Handout: *Word Generation, p. 46* “Think Scientifically”

Step 1: Context

Elicit from students the question we’ve been focused on this week: Who should pay for the consequences of climate change? Write the words *carbon dioxide* and *emissions* on the board and give these definitions:

carbon dioxide: a gas that people and animals breathe out and is sent out when fuels such as coal or gasoline are burned

emissions: to send out or produce

carbon dioxide emissions: one of the causes of climate change

Pass out the handout and students read it independently.

Step 2: Check for Understanding

Call on a student to share what Krya thinks, then ask another student what Anthony thinks and another student what Aliyah thinks about who is responsible for making changes to reduce carbon dioxide emissions.

Step 3: Interpret the Graphs

Ask students to pair up and explain to each other what each graph shows. Listen carefully and then call on different pairs to explain what each graph shows.

Read the discussion question at the bottom of the page and then pairs discuss the question: What is the relationship between the graphs? Give students sufficient time to find a way to explain the relationships. If they need hints, ask them to look at two graphs at a time first.

Step 4: Writing

Read the writing prompt about the future impact of the United States and China on carbon dioxide emissions. Students will individually write their thoughts.

Begin by eliciting a first sentence that the class can use by looking at the question, such as “I hypothesize that the future impact of carbon dioxide emissions by the United States and China will be that... because...”

As students finish writing, pair them up to compare their answers and discuss their agreement or disagreement. Then have a couple students share with the class.

Teacher Directions: Activity 3: Grammar & Checking for Understanding–Materials: Handout: Understanding and Using English Grammar, p. 242-243; Effective Academic Writing, p. 163-164 (for reference)

Step 1: Have students take out their grammar charts from yesterday (p. 163-164 from Effective Academic Writing). Briefly review the categories of connector words: Giving Examples, Showing Contrast, Giving Reasons, Showing Results, Adding Information, Showing Similarities, Showing Time Relationships, and Drawing Conclusions. Ask students to briefly list which connectors fit into each category.

Step 2: Now, distribute the exercise (Practice 10 on p. 242-243.) Go through each word in the list with the students and have them assign each word to the appropriate connector words category.

Step 3: Do the first 2-3 examples with students, then have them complete the rest of the 16 questions individually. Circulate around the room to help students who may be struggling.

Step 4: As a group, review the correct answers to the questions and discuss any questions students have.

Teacher Prompts for Flyswatter Game

Prompts to Write Randomly on the Board:

higher average temperatures

government programs

rising sea levels

relocation

beaches

projection

New York

attribute

Newtok, Alaska

statistics

Prompts to call out:

1. An effect of climate change (A: rising sea levels; higher than average temperatures)
2. something that was damaged by Hurricane Sandy (A: beaches; New York)
3. a city that may be under water in the year 2100 (A: New York)
4. a city that may be under water by 2017 (A: Newtok, Alaska)
5. a way that people got money to repair their homes after Hurricane Sandy (A: government programs)
6. a way to address flooding problems (A: relocation; government programs)
7. a word that means prediction or estimate (A: projection)
8. a word that means say someone said or did something (A: attribute)
9. a word that means information in numbers (A: statistics)

CLIMATE CHANGE: WHO SHOULD PAY FOR THE CONSEQUENCES?



attribute | interest | project | relocate | statistics

THINK SCIENTIFICALLY

“The United States needs to do more about reducing carbon dioxide emissions,” says Kyra. “I read we’re responsible for more carbon dioxide emissions than any other country on Earth except China. I think we should be a leader in the fight against climate change.”

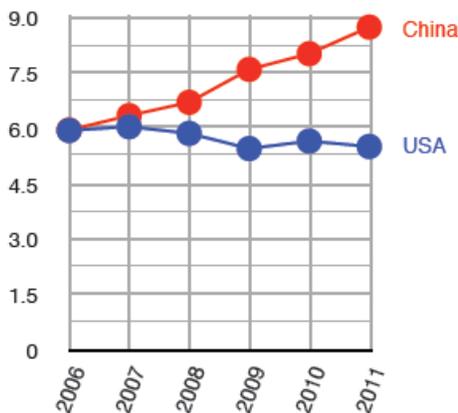
“Well,” says Anthony, “if China is polluting more, maybe they should change first. I heard that their greenhouse gas emissions are **projected** to rise much faster than ours.”

“Everybody needs to do better,” says Aliyah. “There’s no use in everyone sitting around **attributing** responsibility to someone else. The whole world needs to help.”

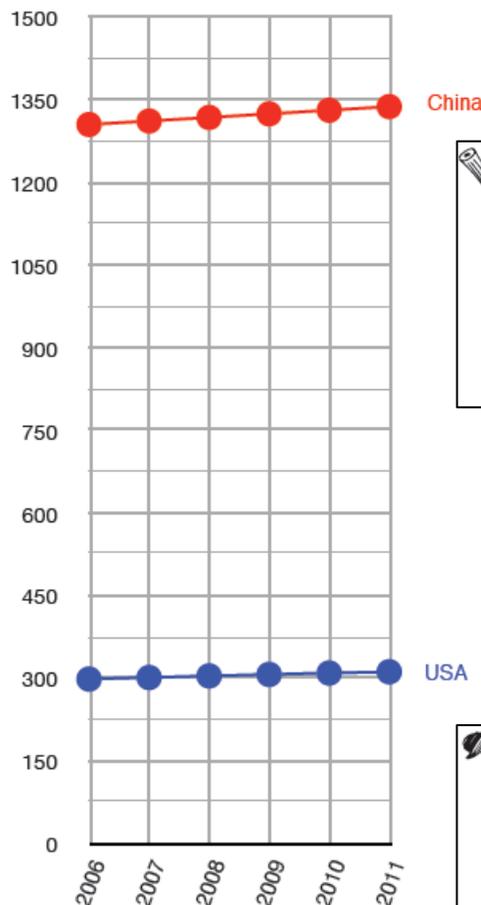
“Figuring out who produces how much carbon dioxide can be tricky,” says Mr. Seemy. “Maybe some of you could find some **statistics** that would help us compare the roles of the United States and China.”

Kyra, Anthony, and Aliyah found some data on the website of the U.S. Energy Information Administration. They focused on “carbon dioxide emissions from the consumption of energy” for China and the United States. They looked at the total emissions for each country, and also at the “per capita” (per person) emissions for each country, and made the following graphs.

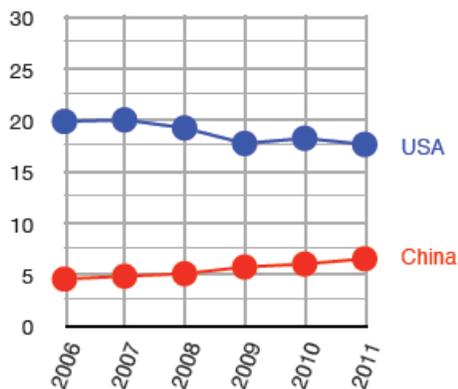
Total emissions (billions of metric tons)



Population (millions)



Per capita emissions (metric tons)



Data Source: U.S. Energy Information Administration, <http://www.eia.gov/cfapps/lpdpbproject/IEDIndex3.cfm>

Assuming the trends in these graphs continue into the future, what would be your hypothesis about the future impact of China and the United States on global carbon dioxide emissions?

What is the clearest way to explain the relationship between the three graphs? Practice explaining the graphs to a partner as if you’re a teacher and he or she is a student.



The Environment Unit: Week 1, Thursday

Objectives <i>Learners will be able to...</i>	Materials
<p>Literacy: write an essay on the topic of climate change using evidence and Focus Words.</p> <p>Listening/speaking: listen and take notes on criteria for exemplary writing. Ask clarification questions as they arise.</p> <p>Transitions & Critical Thinking: consider counterarguments as they write their essays while incorporating Focus Words and because clauses to show cause & effect.</p> <p>Grammar: use academic transition words as appropriate in a short essay.</p>	<p>Make Student Copies</p> <ul style="list-style-type: none"> • Handout: Word Generation, p. 48 • Handout: Climate Change Crossword Puzzle • Handout: Using Transition Words worksheet • Handout: Suggestions for Exemplary Criteria Improvements (can be copied back of <i>Word Generation</i>, p. 48) • Handout: Climate Change PRO/CON Article <p>Make Single Copies or Reference</p> <p>Props, Technology, or Other Resources</p> <ul style="list-style-type: none"> • Laptops (optional) • highlighters

Lesson Plan

Warm up for today's Lesson (Review of vocabulary)

Description: Crossword Puzzle

Materials/Prep: Handout: **Climate Change Crossword Puzzle**

Activity 1: Grammar review

Description: Review connector/transition words and how they are used to connect ideas in essay writing

Materials/Prep: Handout: **Using Transition Words [worksheet](#)**

Activity 2: Listening/speaking & Critical Thinking

Description: Discuss criteria for exemplary writing.

Materials/Prep: Handout: **Suggestions for Exemplary Criteria Improvements**

Activity 3: Literacy & Grammar

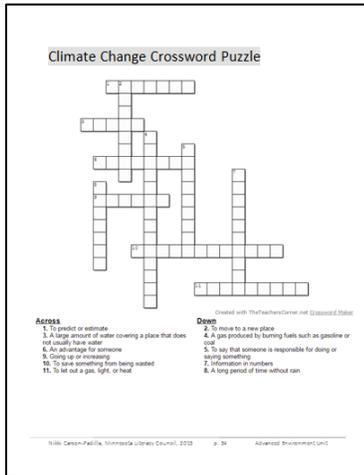
Description: Write an essay on global warming following criteria for exemplary writing.

Materials/Prep: Handout: **Word Generation, p. 63**

Activity 4: Literacy & Critical Thinking

Description: Students will read a Pro/Con essay about the climate effects of eating meat and discuss

Materials/Prep: **Climate Change PRO/CON Article**



Teacher Directions: Warm up: Crossword Puzzle-Materials: Handout: Global Warming Crossword Puzzle

Demonstrate the first response to the puzzle for the whole class at a projector, so all learners understand that one letter must go in each box, even boxes containing numbers. Make sure that learners understand the across and down system. In addition, be sure that learners understand that this is a vocabulary and spelling exercise, in no way is it a copying exercise, so the answers are not embedded within the clues/definitions. **Learners must generate the answers on their own.**

Correct together as a class, either by having volunteers come up to the projector and fill in the correct answers or by having volunteers spell out the correct answers.

Teacher Directions: Activity 1: Literacy & Grammar:

Materials: Handout: "Using Transition Words" worksheet

<http://www.englishworksheetsland.com/grade7/writing/3/2transwords.pdf>

Step 1: Have students briefly discuss the positives and negatives ('pros' and 'cons') of owning a pet before distributing the worksheet.

Step 2: Distribute the worksheet and read aloud to the students the introductory paragraph. Then, look below the exercise to the word list. Read these words with the students and explain that students will need to use these words to complete the blank spaces in the exercise.

Step 3: Complete the first one or two blanks in the exercises with the group. Then allow students a few minutes to read the essay and fill in the correct transition words.

Step 4: When students are finished, go through the exercise together and fill in the correct words. Do not get bogged down in the more difficult vocabulary words in this exercise.

Teacher Directions: Activity 2: Listening/Speaking & Critical Thinking-Materials: Handout: Suggestions for Exemplary Writing Criteria Improvements

Suggestions for Exemplary Writing Criteria

INSTRUCTIONS: Read aloud. Check off each criterion you meet after you write to know your level of item attainment. The criteria do not include grammatical considerations, such as grammar and punctuation. This does not mean that grammar and mechanics are not important. They are still highly considered when grading essays.

Good Start

- Stated position
- Included one Focus Word

Pretty Good

- Stated position clearly
- Included 1-2 supportive arguments
- Included 2 Focus Words
- Included 1 transition word

Exemplary

- Stated position clearly
- Included 3 supportive arguments
- Refuted a likely counterargument
- Included 3-5 Focus Words
- Included 2 or more transition words

Nikki Carson-Padilla, Minnesota Literacy Council, 2013 p. 38 Advanced Environment Unit

Step 1: Context

Explain to learners what a rubric is and how it is used to grade objectively. The GED, college entrance, and licensure writing tests usually use some form of rubric. A writing rubric can help learners as they prepare for the GED, college entrance, or those tricky open-ended job application questions. A rubric has been provided here with the handout **Suggestions for Exemplary Writing Criteria**.

Step 2: Read and Discuss

Learner volunteers read each grading criteria aloud. Discuss as a whole class.

Teacher Directions: Activity 3: Literacy & Critical Thinking-Materials: Handout: *Word Generation*, p. 48, “Writing Prompt”



Step 1: Prewrite

Learners brainstorm on scratch paper or in their notebooks before writing on the **Writing Prompt** handout. Learners should brainstorm a thesis statement and ideas to support it (ways to prevent global warming). They may choose to list or to draw a word web/diagram, but some pre-writing should be encouraged. If learners try to organize their ideas as they develop them, it will be more difficult to incorporate the Focus Words and concentrate on staying on topic (avoiding irrelevant comments).

Step 2: Write

Learners write a short essay on the prompt **“Who should pay for the consequences of climate change?”** striving for exemplary writing as described in the rubric. A short essay may be 1-5 paragraphs depending on the learner’s ability and the amount of class time remaining.

Approximately 20 minutes are needed for the Checking for Understanding activity.

Teacher Directions: Activity 4: Literacy & Critical Thinking-Materials: Handout: *Climate Change PRO/CON Article*; highlighters; projector

Step 1: Context

Ask learners to share out all the ways this week they’ve discussed or studied to address the effects of climate change (relocate coastal cities, save water, rebuild damaged buildings higher up to avoid flood damage).

They will read two opinions about another way to reduce climate change—eating less meat. Ask who has heard of this approach before and to make guesses as to how this would reduce the rate of climate change.

Step 2: Read for the Gist

Ask learners read the *Climate Change PRO/CON* article with the purpose of learning the two main ideas, or the gist of the two opinions.

Note: save vocabulary questions for later, as time allows in the last few minutes of class, after they have had a chance to build their understanding through reading and discussion.

Note: Ideally, a teacher or coordinator will read learner essays and check off criteria met, so learners get an idea of what they should work on concerning development of their writing.

As students finish writing, ask them to write two sentences in their own words explaining each writer's opinion in the space at the bottom of the last page.

As students finish, they can share their sentences with other learners.

Call on a few students to share their sentences with the class and confirm that everyone understands the two opinions.

Step 3: Highlighting Evidence

Write the word *evidence* on the board and explain that evidence is the reasons that support your opinion. They can be facts, stories, or quotes.

Use a projector to demonstrate to students how to highlight evidence. Skip to paragraph 4, which states to claim and then continue reading out loud to paragraph 6 and pause to ask students if this is evidence (No, "Nothing could be more ridiculous," is an opinion.).

Continue reading until paragraph 7 and ask if this is evidence (Yes, "New studies show that half the world's greenhouse gas is created by livestock," is a fact).

Ask students to continue reading their texts until they think they find evidence and to raise their hands when they find some. Wait for a few hands to give everyone a chance to read and search. Call on a student to come to the projector and point to the evidence. Ask the student explain why it is evidence. If it is evidence, have the student highlight it.

Pass out highlighters and students continue reading and highlighting evidence in the article for both opinions.

Use the projector to go over the answers—elicit all the evidence students found and highlight it.

Step 4: Evaluating Evidence

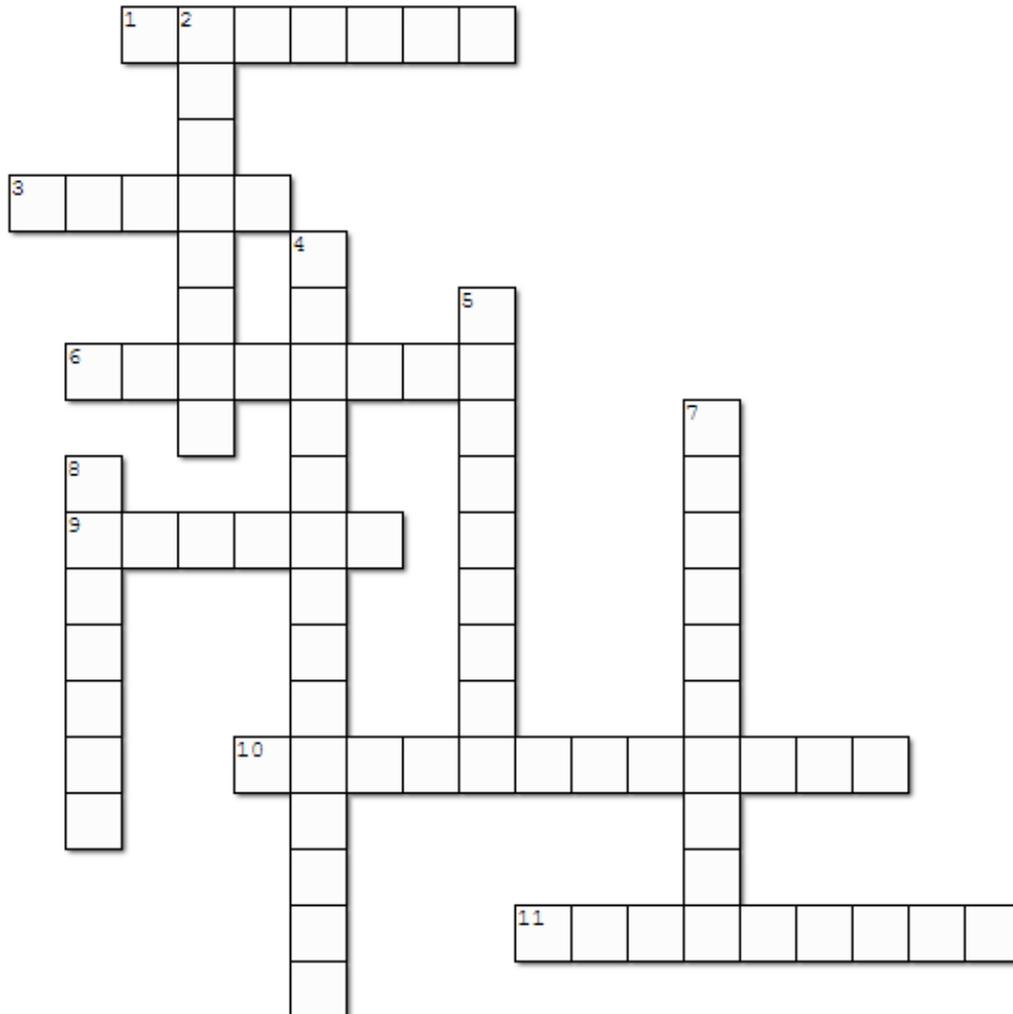
Learners talk to partners to discuss which writer had stronger evidence. Then they circle the evidence in the text that is stronger.

Ask all students who think the PRO article is stronger to raise their hands, and then all students who think the CON article is stronger to raise their hands. Call on students to state the reasons why they think on is stronger.

Step 5: Vocabulary Question

Use any time that is left (if there is any) to answer learner's questions about vocabulary in the text.

Climate Change Crossword Puzzle



Created with TheTeachersCorner.net [Crossword Maker](#)

Across

1. To predict or estimate
3. A large amount of water covering a place that does not usually have water
6. An advantage for someone
9. Going up or increasing
10. To save something from being wasted
11. To let out a gas, light, or heat

Down

2. To move to a new place
4. A gas produced by burning fuels such as gasoline or coal
5. To say that someone is responsible for doing or saying something
7. Information in numbers
8. A long period of time without rain

Answer Key: Climate Crossword Puzzle

Across

1. project
3. flood
6. interest
9. rising
10. conservation
11. emission

Down

1. relocate
2. carbon dioxide
3. attribute
6. statistics
9. drought

Suggestions for Exemplary Writing Criteria

INSTRUCTIONS: Read aloud. Check off each criterion you meet after you write to know your level of essay development. The criteria do not include sentence-level considerations, such as grammar and punctuation. This does not mean that grammar and mechanics are not important. They are still highly considered when grading essays.

Good Start

- Stated position
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Pretty Good

- Stated position clearly
- Included 1-2 supportive arguments
- Included 2 Focus Words
- Included 1 transition word

Exemplary

- Stated position clearly
- Included 3 supportive arguments
- Refuted a likely counterargument
- Included 3-5 Focus Words
- Included 2 or more transition words

Climate Change PRO/CON Article

Excerpted from "PRO/CON: Less steak on the table, cooler planet?"
<http://newsela.com>

PRO: To help the environment, we should eat less meat

- 1 People around the world are eating more and more meat these days. As a result, giant farms are raising more and more animals. Cattle, sheep, pigs, chickens and other livestock give off methane gas. The gas is released as their bodies break down the food they eat.
- 2 Methane gas is one of the greenhouse gases. Other greenhouse gases are created when fuels such as coal and oil are burned.
- 3 When greenhouse gases are released, they remain in the air. They build up in the atmosphere and trap heat. Over time, they have caused a steep rise in average global temperatures.
- 4 One way Americans can help is by changing their eating habits.
- 5 Livestock produce a big part of the world's greenhouse gas. The situation is not getting any better. Indeed, it is quickly getting worse.
- 6 Big livestock companies are trying to convince us that eating meat is not part of the problem. They have even suggested that vegetarians cause more greenhouse gas buildup than meat eaters. Nothing could be more ridiculous.
- 7 New studies show that half the world's greenhouse gas is created by livestock. Farm animals produce more greenhouse gas than all the cars, trucks, airplanes, trains and ships in the world put together.
- 8 The Environmental Protection Agency (EPA) is an agency of the U.S. government responsible for protecting the environment. The environment is the natural world we all live in.
- 9 Like many scientists, the EPA believes methane gas released by livestock is a serious problem. It says such gas accounts for one-third of all greenhouse gas created by U.S. agriculture. Greenhouse gases are also produced when farmers burn fuels to power their tractors and other machines.
- 10 No one is saying we should never eat another hamburger or steak again. However, the

United States and other rich countries do need to eat less meat.

- 11 The big livestock companies say there is no link between climate change and farm animals. Many scientists do not agree with them. One study found that eating just a half cup less of meat a day would greatly lower the amount of methane gas released. We can all make that small sacrifice. It is easy to do and will help save our planet. Farming has to change so it does less damage to the environment.
- 12 Eating less meat is not only good for the environment. Doctors say it is also good for your health.
- 13 The big livestock companies say there is no link between climate change and farm animals. Many scientists do not agree with them. One study found that eating just a half cup less of meat a day would greatly lower the amount of methane gas released. We can all make that small sacrifice. It is easy to do and will help save our planet.

CON: Eating less meat might actually hurt the environment

- 14 Recently, many of the world's leaders met in Paris. Together, they reached an agreement on what must be done to fight global warming. Each country agreed it would work hard to lower the amount of greenhouse gas released every year.
- 15 One of the big things such people want is a tax on meat. The added tax would make meat more expensive. As a result, many people might decide to start eating less of it. The change would be good for the planet, they say. Supporters of the tax say raising livestock produces too much greenhouse gas. They believe it is worse for the environment than raising other kinds of food.
- 16 Tax supporters say we could greatly slow climate change if we can change how people eat. If fewer people ate meat, farms would raise fewer animals. Then, less methane gas would be released and global warming would slow.
- 17 The idea sounds reasonable. However, it would not actually work. People who say eating less meat is the answer are not thinking things through. They are not looking closely at what would happen if many people switched away from meat and began eating more of the other kinds of food.
- 18 For years, the U.S. Department of Agriculture (USDA) has pushed Americans to eat less red meat, and more fruits, vegetables and grains. Doctors have long said eating that way is healthier.
- 19 Suppose Americans did follow these suggestions. What effect would it have on the level of greenhouse gases?

- 20 Scientists at Carnegie Mellon University looked at just that question. They found that a shift toward eating more fruits and vegetables would actually raise the amount of greenhouse gas released.
- 21 The reason is that growing fruits and vegetables requires a lot of machinery. The machinery needs fuel to run. When that fuel is burned, greenhouse gases are released. In the end, more greenhouse gas would be produced than what farm animals cause.
- 22 Growing fruits and vegetables also uses up a huge amount of water. Farmers would both use more water and burn more fuel if they switched to growing more fruits and vegetables.
- 23 In the end, raising farm animals for meat is both less wasteful and less harmful for the environment. Of course, people still need their fruits and vegetables. However, it would not be healthier for the planet if we all began to eat less meat.
- 24 The Carnegie Mellon study is not the only one to challenge the idea that meat is bad for the environment. A University of Michigan study also found that growing more fruits and vegetables would raise the level of greenhouse gasses.
- 25 The truth is, science does not support the idea of a meat tax. It also does not support a move away from eating meat. Neither step will help the environment. Indeed, both are likely to make the greenhouse gas problem even worse.