WRITING Claim # 2 - Students can produce effective writing for a range of purposes and audiences.

LANGUAGE Claim #5 - Students can use oral and written language skillfully across a range of literacy tasks.

Title of Performance Task: Interdisciplinary Writing: Biodiesel Production

Grade Level: 11

Task Source: Adapted from CT Released Writing Task

How this task addresses the "sufficient evidence" for this claim:

In order to complete the assessment, students must:

1. Compose, revise, and edit text in proper format
2. Write a text in support of an argument in response to texts read
3. Address Purpose and Audience (setting a context – topic, question(s) to be answered, and establishing a focus/thesis/claim
4. Organize and Develop Ideas using a structure consistent with purpose (providing overall coherence using organizational patterns and transitions to connect and advance central ideas
5. Provide supporting evidence/details/elaboration consist with focus/thesis/claim
6. Use Language Effectively (including word choice, sentence variety, precise/nuanced language, domain-specific language, and voice)
7. Apply Conventions of Standard English

Intended Depth of Knowledge Level: DOK 4 (integrating information from multiple sources)

Scoring Focus/Reporting Categories (See page 16)

- **Claim 2**
  - Organize & Develop Ideas
  - Provide Evidence & Elaboration
  - Apply Conventions
- **Claim 5**
  - Understand & Apply Written and Oral Language

Standards Assessed with this Task

Writing Standards:

11-12.W.1. Write arguments (a-e)

11-12.W.4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience

11-12.W.5. 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

11-12.W.7. Perform short, focused research projects and more sustained research; synthesize multiple authoritative sources on a subject to answer a question or solve a problem.

(formative) 11-12.W.8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose and audience;

integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

11-12.W.9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned.

Language Standards:

11-12.L.1. Observe conventions of grammar and usage

11-12.L.2. Observe conventions of capitalization, punctuation, and spelling

11-12.L.3. Make effective language choices.

11-12.L.6. Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts

Description of task setting: Phase 1 and Phase 2, individual work

Duration of the activity: Phase 1: 1.5 hours; Phase 2: 1 hour; Total time: 2.5 hours (150 minutes)

Operational logistics and Materials Required: Graphic organizers and paper for note taking/prewriting and writing; computer for independent research, composing, and editing

Writing Text Type: Argument/Persuasive Writing: Letter format

Reading Texts: Two newspaper articles and additional resources selected through student independent research

Title: Interdisciplinary Writing: Biodiesel Production

Task Summary: In Phase 1, students prepare for writing by reading source material provided, locating at least one additional source*, and organizing notes. Prewriting/planning involves finding additional information on the topic and writing notes in graphic organizers. Students decide on a claim, as well as explore supporting and opposing arguments. In Phase 2, students write a letter either in support of or in opposition to biodiesel production based on the material presented in the two newspaper articles and evidnce from the additional source.

*Novice version of task would provide the third source for students or be limited to two sources

Phase 1

1. Students read source material provided
2. Students locate additional source material through independent research
3. Students make notes in support of and in opposition of biodiesel production in graphic organizers

Phase 2

4. Students draft letter using evidence gathered from source materials
1. Revise letter using evidence gathered from articles

Actual prompt for student

The purpose of this assessment is to determine how well you can establish and support a claim about a specific topic. In Phase 1, you will read two short articles about a controversial issue, take a position on the issue, and find at least one additional resource to support your position. You must support your position with relevant information from *all* of the source materials. In Phase 2, you will draft and revise your persuasive letter.

Your score will be based on the following criteria:

1. Position-Did you take a clear position on the issue?
2. Comprehensiveness-Did you use information from all three sources to sy]upport claims or counter claims?
3. Support-Did you support your position with accurate and relevant information?
4. Organization-Did you organize your ideas in a logical and effective manner so that your audience can understand and follow your thinking?
5. Clarity and Fluency-Did you express your ideass clearly and fluently using your own words?
6. Did you edit for grammar, usage, and mechanics?

Texts

The Issue: BIODIESEL PRODUCTION

Should states encourage biodiesel production? Biodiesel is non-petroleum-based diesel fuel made from processing vegetable oils or animal fat. As a result of the federal Energy Policy Act of 2005, some states offer financial incentives to encourage citizens to produce biodiesel from such products as soybeans, peanuts, used cooking oil, and chicken fat. Supporters of biodiesel production claim that the fuel is a clean, renewable energy source. Biodiesel's opponents question the safety of the production process and the environmental impact of the fuel.

You will read articles about the issue and take a position for or against biodiesel production. Connecticut legislators are considering legislation that would encourage biodiesel production. Using information from *both* articles, you must write a letter to your state senator either supporting or opposing biodiesel production.

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Source One

The following article appeared in *The Charlotte (North Carolina) Observer* on December 27, 2007. It presents reasons both for and against the production of biodiesel.

For Fuel, N.C. Looks Homeward

BY KATHRYN THIER

Iredell farmers want to make biodiesel for local use, but neighbors concerned

Dec. 27—Tired of watching the uncertainty in world petroleum markets, the McLain family decided to produce biodiesel from soybeans, canola and sunflowers on their north Iredell farm.

With that decision, the McLains joined a growing number across the state and nation turning to this home-grown fuel to reduce the country's reliance on foreign oil.

The McLains' neighbors, though, oppose the plant and are suing the county to stop it, citing safety concerns. They say a fuel plant doesn't belong in a residential, rural area, in case of explosions, collisions with tankers and possible environmental pollution.

Supporters point to benefits, such as reductions in air pollution and new markets for farmers. Unlike some renewable fuel technologies that are years away, biodiesel can be used today in modern diesel engines.

Said farmer Phil McLain: "Our family feels like this is a good thing, not only for us, but for the neighborhood and the nation. This is the new face of agriculture . . . and we're just adapting to the new environment we're in as farmers."

Nationally, government and military fleets, tractor-trailers and farm equipment have used biodiesel for years.

It's starting to catch on in the Carolinas as well.

This year, the N.C. General Assembly approved $5 million to establish the Biofuels Center of North Carolina. The goal: to have N.C. feedstock supply 10 percent of the state's fuel needs through biodiesel and ethanol by 2017.

Commercial biodiesel production is already growing. Seven production facilities are scattered across North Carolina, with more planned, plus 39 distributors, 44 retailers and six co-ops, with some in both the wholesale and retail business. South Carolina has at least one distributor and 15 retailers.

Unlike petroleum, biodiesel is meant to be produced and used within a small area. Because it's used locally, it also cuts down on pollution from long-haul transportation to market, supporters say.

In Gaston County, the school district uses reclaimed cooking and food production oils to make biodiesel for its school buses.

And in Monroe, the city has run its entire fleet on biodiesel from local sources since 2004.

Mike Keziah, who manages Monroe's program, said the city has seen less wear and tear on its vehicle engines because biodiesel is more lubricating. Employees also are exposed to less "black smoke billowing up in their face," he said.

Some in the private sector also see biodiesel's promise.

A little over a year ago, Randy Dellinger and two partners opened a biodiesel plant in a former Lenoir adhesives factory that supported Caldwell County's furniture industry.

In August, a fire at his plant, Foothills Bio-Energies, gave the McLains' opponents ammunition for their contention that biodiesel production is unsafe.

Dellinger said the plant had been closed two days when the fire occurred. The cause hasn't been determined. A week later, the plant was back in production.

each year, said Marshall Lamb, the laboratory's research leader. The laboratory has found certain peanuts are better for biodiesel than others. The Georganic peanut, for example, produces 120 gallons of oil per acre and costs $1.75 per gallon to grow. And the U.S. Department of Agriculture provides credits for farmers who grow crops for biofuel.

Peanuts used for fuel don't require the care—such as pesticides—that edible peanuts require, Lamb said.

"We're not after making edible peanuts; we're not after competing with edible peanuts," he said.

Glen Zorn, deputy commissioner with the Alabama Department of Agriculture and Industries, said biofuels mean the opportunity to use alternative fuels and give farmers another outlet for their crops.

As far as ethanol is concerned, Glen Zorn said timber could be a source for cellulose ethanol in Alabama. And he said partnerships like the one with Montgomery show how biofuels can work on local levels.

"We're actually educating the public on what we can do with what we have," Glen Zorn said. ". . . I'm the most optimistic I've been about agriculture in some time because I do see some options out there, and those options are in alternative fuels."

"Farmers May Have New Options with Alternative Fuels" by Peggy Ussery, *Dothan Eagle*, February 13, 2008. Reprinted with permission.

Source Two

The following article appeared in the *Dothan (Alabama) Eagle* on February 13, 2008. It provides the views of people on both sides of the biodiesel debate.

Farmers May Have New Options with Alternative Fuels

BY PEGGY USSERY

Feb. 13—Jeff Breeden and his portable classroom have seen a lot of county fairs. He's shown the classroom off to students and most recently to peanut farmers at the Alabama-Florida Peanut Trade Show in Dothan.

Breeden, the president of Biodiesel Logic in Albertville, Ala., shows people how feedstock can be converted to fuel in as little as seven hours.

"This is the process," Breeden said. "Everything you need to make biodiesel."

And after the start-up cost to buy the equipment, making the biodiesel fuel costs about 75 cents per gallon, Breeden said. The machinery, he said, pays for itself within 140 to 150 days.

It seems to make sense. If you have a way to create fuel from a renewable resource, shouldn't you do it? Especially if it's cheaper and can help wean Americans off foreign oil?

Across the country, most people equate biofuels with corn, soy and even sugarcane to make ethanol. Breeden and others have been using vegetable oils, recycled cooking oil from restaurants and even peanut oil to create biodiesel fuels.

Just last year, the Alabama Legislature paved the way for the creation of the state's Center of Alternative Fuels, and Agriculture and Industries Commissioner Ron Sparks has been pushing the effort to promote biofuels through partnerships with cities, universities and companies like Biodiesel Logic.

Cities such as Montgomery and Hoover have gotten on the biodiesel bandwagon. Montgomery is collecting used vegetable oil from restaurants. The state agriculture and industries department processes the waste oil at the state farmer's market and uses it to make biodiesel. The city of Montgomery then uses the biodiesel in city vehicles.

Nick Zorn, manager of the state farmer's market in Montgomery, said the cooking oil would otherwise end up in the city's sewer system or in its landfill.

"We're taking it and recycling it," he said.

Critics, however, caution against the rush to move from fossil fuels to biofuels. Two studies released last week, including one by The Nature Conservancy and the University of Minnesota, raised concerns about the true environmental impact of moving from fossil fuels like oil, coal and natural gas to biofuels such as ethanol and biodiesel.

Biofuels, researchers found, could actually create more carbon dioxide emissions and increase global warming—which is one of the main reasons environmentalists have pushed for more eco-friendly fuels. The studies anticipate more land would be cleared around the world to plant the corn, soy and other crops needed to produce all the fuel demanded by consumers. Such changes in land use could lead to higher carbon dioxide emissions.

There are also concerns about the impact on food crops if farmers dedicate more land to fuel crops. Just as higher costs of oil can impact the price of food, so can the competition for land to grow crops for fuel versus food.

The National Peanut Research Laboratory in Dawson, Ga., is in its second year studying peanuts as a source for biodiesel.

The United States is a net importer of peanut oil, bringing in 150 million pounds of it

He hopes to increase production from 1.1 million gallons a year to 5 million gallons annually.

"If we can create jobs around a local renewable fuel," he said, "that's a much better thing than . . . sending our dollars overseas."

Critics' concerns

The McLains' neighbors say they understand the environmental and economic benefits of biodiesel. But they don't want a plant in their rural backyard.The McLains want to put the biodiesel plant in an existing building on their property. One family's backyard borders the plant site, and other neighbors are across the street. The plant would be off Snow Creek Road, a route to a middle and high school.

"(The plant) doesn't need to be out where schoolchildren are playing," said Carroll Ward, a retired state trooper.

Opponents say they're worried about increased truck traffic and dangers if tankers collide with cars. Trucks already come and go from the site as part of the McLains' current farm operations.

Smell is not a complaint. Biodiesel production isn't known to cause bad odors.

The McLains' opponents say they're worried about methanol causing an explosion, either in the plant or on a truck, or seeping out into their groundwater. Methanol is sometimes involved in producing biodiesel.

"You have very dangerous materials involved in the production of this stuff," said Bill Pitt, who owns property across the road from the proposed plant.

Biodiesel proponents say methanol, when handled properly, is safe. It's used in many products, such as plastics, paints and clothing, and in sewer plants. The McLains' project would be subject to local fire codes and state environmental regulations.

Methanol is flammable and toxic and precautions should be taken while using it, experts say. It can't be contained if spilled in large bodies of water, but if released into soil, surface water or groundwater, half of it degrades within one to seven days, according to The Methanol Institute, an industry group. Pure biodiesel is biodegradable and nontoxic.

The hazard from methanol is similar to gasoline, said John Bonitz, farm outreach and policy advocate with the Pittsboro-based Southern Alliance for Clean Energy.

"We think nothing of having gas stations near neighborhoods," he said.

Iredell County has granted the McLains zoning to produce up to 4 million gallons a year. The family plans to use the fuel themselves and to sell it to other area farmers.

McLain said his biodiesel production would create no more pollution or danger than farms that process dairy, chicken or swine.

"Just like a dairy farm belongs close to the crop," he said, "this belongs close to the crop."

"For Fuel, N.C. Looks Homeward" by Kathryn Thier, *The Charlotte Observer*, December 27, 2007. Reprinted with permission.

Preparing to Write Your Letter

Arguments *FOR* biodiesel production

Based on your reading of the source materials, list below the most important arguments, or points of view, presented to **support** biodiesel production. Also, list the evidence or claims that support each argument.

Arguments For Biodiesel Production	Supporting Evidence or Claims

This page will not be scored.

Preparing to Write Your Letter

Arguments *AGAINST* biodiesel production

Based on your reading of the source materials, list below the most important arguments, or points of view, presented to **oppose** biodiesel production. Also, list the evidence or claims that support each argument.

Arguments Against Biodiesel Production	Supporting Evidence or Claims

This page will not be scored.