

# **Annotated Anchors**

## English Language Arts/Literacy

## Grade 11 – Sunflower Explanatory Performance Task

February 7, 2020

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Purpose and Organization • Sample 1-Point

### STUDENT RESPONSE

Sunflowers are being used for everyhting especially for biofuels and oils and other kind of things that we use in our lives so the process of being so tall is actually and advantage so that way we can ahve more of one plant and what were missing from another, and it wont abe much because we would already have that first part. even tough we may need alot of it alot can be produced by little also it just depends what or how youre using it.

#### ANNOTATION

### **SCORE POINT 1**

There is no discernable **organizational structure** in this very brief response. Rather, there are potentially relevant ideas strung together with no unifying **thesis** (e.g., *"Sunflowers are being used for everyhting especially for biofuels and oils and other kind of things"* vaguely summarizes an idea from one source). There are no **transitional strategies**, no **introduction**, and no **conclusion**.



Purpose and Organization • Sample 1-Point

### STUDENT RESPONSE

Its been said that using a sunflower would be a smart new biofuel. I agree not personally of course but for this paper i have too. So we have apperently started planting a bunch of sunflower seeds and volunteers tend to them when they can. This is just one step in making biofuel out of sunflowers and saving the planet!

Ill begin now by saying how it would be pretty cool if this could happen. Farmers around the midwest would kill for a renewable fuel source to save some green and make a bigger check at the end of harvest season. but at the same time doing this would effect the job market. See this what i don't understand we have all these people working to fix a problem but what happens when they fix it and the people that worked on that problem lose there jobs? If we created a biofuel to power diesel tractors farmers would most likely teach themselves to fix the machines.

Apperently they'd make diesel techs become biotechs. I guess the jobs lost from destroying one job would be fix by the amount of people it would take to keep the bio fuel world turning

### ANNOTATION

### **SCORE POINT 1**

The response provides little or no **organizational structure** with an unclear focus. Instead of a **thesis**, the response provides a vague **main idea** (e.g., *"Its been said that using a sunflower would be a smart new biofuel"*). The few **transitional strategies** (e.g., *"So…," "See this [is] what…," "but at the same time…"*) fail to further a **progression of ideas**. The **introduction** is weak and the **conclusion** is missing.



Purpose and Organization • Sample 2-Point

### STUDENT RESPONSE

There are many ways in which the sunflower can be used to create bio-fuel. Community's have come together to plant sunflowers to help both their country and their community. Farmers have began planting sunflowers in hopes of receiving a higher income and helping their country in the process. Across the United States we are beginning to see a change; people are looking for new and cheaper ways to produce fuel and sunflowers could be the next thing.

In Biofuel from Sunflower communities like the city of Phoenix have began taking empty lots and creating large gardens of sunflowers. The garden is tended by many volunteers and the schools have a large part in it too. They take the sunflowers and create oil and then produce a biofuel. The schools get a learning process out of it and also see changes happen to the community as more people start to embrace the idea of sunflowers as an alternative fuel.

In the small town of Dove Creek Colorado farmers have started to embrace the idea of planting sunflowers as well. They were promised a chance at being paid more and in the process they would help the community and country. By taking a huge risk they started to plant sunflowers becuase Berman of San Juan Bioenergy would build an energy plant for them and pay the farmers. However, after a few years the industry fell. Farmers however, are strong willed and they continued to plant sunflowers in hopes of still recieving more. By taking a huge risk they could end up losing it all or with more money in their pockets then they have seen in a long time.

People are beginning to take on this "green" thinking. We are looking for cheaper, cleaner, and healthier ways to produce things such as fuel and food. Sunflowers are showing signs of becoming something very great. They produce many helpful things for our country and I'm excited to see what comes next as we strive towards our goals as a country.

### ANNOTATION

### **SCORE POINT 2**

Although the response is generally focused, the response lacks a clear **thesis** to guide it. Instead, there is a **controlling idea** that is somewhat vague (e.g., *"Across the United States we are beginning to see a change; people are looking for new and cheaper ways to produce fuel and sunflowers could be the next thing"*). The **progression of ideas** relies on linking two paragraphs loosely dealing with *"planting sunflowers"* but with no clear relationship between the two examples. There are a few **transitional strategies** (e.g., *"In the small town of Dove Creek Colorado farmers have started to embrace the idea of planting sunflowers as well.", "However..."*). The **introduction** is weaker than the **conclusion**: the introduction fails to provide a **thesis** (*"many ways"* is a self-evident main idea, not a thesis). Although the conclusion is not strong, it does provide some sense of closure (*"showing signs of becoming something very great" and "excited to see what comes next..."*).



Purpose and Organization • Sample 2-Point

### STUDENT RESPONSE

Sunflowers are a far overlooked flower. Not only are they lovely to look at and can brighten one's day, but they have many uses as well. One of which that could be an anwer to many issues of today's need for new sources of biofuel and alternative engergy than oil and gasoline. These wonderful yellow flowers can be used to create the biofuel we need to sustain our society's better and economically more efficient.

From an article of the U.S. Departnment of Agriculture it was stated that already in law today, "it is required that a minimum of 1% biodiesel by volume be blended into diesel engine fuels." In other words currently diesel fuel is only used for 1% of all of it that is produced. So why not use much more of it that can be produced efficiently and for a cheap price? Sunflowers seem to be a likely answer to this question. It's potential as a bio-source for ethanol should be the new focus for all. With proper research and thorough development this can be done. Already experts in Brazil are powering boats and other contraptions with this fuel from sunflower seeds.

For farmers as well this new idea of fuel usage from the sunflower seeds is becoming more and more prevalent. In an artcile from NPR recently it was explained how farmers in Dove Creek are using this new idea as a drive for more income. They are hoping to grow sunflowers to produce this fuel to power all kinds of contraptions and cars, even their tractors. However the present time isn't helping them because of the lack on attempting to study the sunflower oil. They need proof first to help them in creating this opportunity for new income. When this is done economically countries can use this new fuel efficiently and better provide for their people and families.

The use of the sunflower is continuing to be overlooked, it can be used well if we study and take the time to bring for new biofuel. We must unite communities and bring this great opportunity for alternate fuel for all to increase the welfare and future of world economics.

#### ANNOTATION

### **SCORE POINT 2**

There is a **thesis** of sorts in paragraph two (*"[Sunflowers'] potential as a bio-source for ethanol should be the new focus for all [research/development*].") The **progression of ideas** is not immediately obvious although some **transitional strategies** help (e.g., *"In other words...", "For farmers as well...", "However..."*). The essay begins with a somewhat general **introduction**, is followed by a paragraph that moves toward a specific thesis, and is then followed by a paragraph used to support the thesis. This **progression** builds to a relatively strong **conclusion** that issues a call-to-action.



Purpose and Organization • Sample 3-Point

#### STUDENT RESPONSE

Cultivating sunflower seeds has become a huge discussion around the world for many reasons. Sunflower seeds have proven to be useful in many different ways, all the way from cooking, to aesthetic reasons. Sunflower seeds can be used to create biofuel, but also may have economic implications that could be a benefit to our society. Through the past years, people have grown to see sunflowers as a plus to the community and have taken strides to grow and cultivate them for many different purposes.

Sunflower seeds can be cultivated for many reasons, one of them being biofuel. Because of the recent industrial revolution, fuel has become a necessity to society. Fuel is a high price to pay for many people who struggle day to day and also causes major pollution to the atmosphere. Many people have searched for cheaper, more efficient, and less economically damaging ways to run their cars and get to work. People have found ways in which sunflower seeds can be used to create biofuel. Planting sunflower seeds is a win-win situation because they are beautiful to look at, but also can be cultivated to create biofuel. One way that they can make biofuel is by planting the sunflower seeds, harvesting them, taking the seeds, pressing them for their oil to create biodiesel and biofuel that could help run hybrid cars, so that people wouldn't have to use as much fuel (Source #2). The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil) and they can also be used to help run cars (which saves people money and is better environmentally) (Sourve #1). There are many ways sunflower seeds can be formed into biofuel, but there are also many economic implications of this process too.

Turning sunflower seeds into biofuel can be good or bad depending on the way you look at. It is good because it doesn't cause as much pollution to the atmosphere and is reusable, but could also have some economical problems. Although it will, in the end, be cheaper than fuel, the process for creating that much biofuel from the seeds would call for many workers and employees. More employees and workers means more money needed to pay for all that work and energy put in to not only growing and harvesting the sunflowers and their seeds, but also pressing them and extracting the oil from them (Source #2). Keeping the sunflowers well and growing is a tedious and arduous task and environmental factors could play a major part in how many sunflowers actually live to see harvest day. If for some reason there is a fire, it could burn away all the sunflowers, so that all the hard work being put into keeping them intact goes to waste, and ends up costing more than expected. Or if there is too much rain, it could drown all the sunflowers and cause them die, also wasting money. The economic implications for using sunflower seeds for biofuel is a risk that must be taken if society is ready to give up their hunger for fuel, and move on to a more environmentally productive source. Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating with the harvest.

Sunflower seeds could be made into biofuel, but only with much help from everyone, including the environment. Therefore, it could either be a benefit to the economy, or be a disaster, depending on how everything works out. Starting this project as another fuel source could be a major boom, or a major bust, but it is a risk that is needed to be taken if society is ready to take a step forward to creating a greener and more efficient earth.



### **SCORE POINT 3**

This response shows an evident organizational structure with an adequately sustained focus. The introduction does not state a thesis, relying instead on a fairly obvious controlling idea (e.g., "Sunflower seeds can be used to create biofuel, but also may have economic implications that could be a benefit to our society."). However, the essay leads to a thesis in the final sentence ("Starting this project as another fuel source could be a major boom, or a major bust, but it is a risk that is needed to be taken if society is ready to take a step forward to creating a greener and more efficient earth"). The transitional strategies (e.g., "...many reasons, one of them being...", "One way...", "Although it will, in the end...", "Therefore...") function to clarify relationships within paragraphs. Between the two body paragraphs is a formulaic but adequate sentence connecting the ideas ("There are many ways sunflower seeds can be formed into biofuel, but there are also many economic implications of this process too"). Overall, the progression of ideas from beginning to end is adequate with cause and effect structure used at the end of each body paragraph (e.g., "The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil) and they can also be used to help run cars (which saves people money and is better environmentally" and "Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating").



Purpose and Organization • Sample 3-Point

### STUDENT RESPONSE

Everything is connected into a whole. One small factor can greatly change the community and our lifestyles. One small change can lead to a revolutionary discovery. Believe it or not, even suprisingly unrelated things such as sunflowers and the biofuel industry are greatly connected and beneficial when combined. As problem solvers, we have turn to new alternatives and hybrids to help save our planet and corporations. Sunflower seeds are a better alternative to use to create biofuels because of their oil rich content, theyre inexpensive to cultivate, and they work efficiently as replacements for gasoline oil.

Sunflower crops became extremely popular in the Philipines because they could easily grow on Philipine lands and because they're a great source of natural oils. During the 70's the Philipines enjoyed their surpluses of Sunflowers as part of daily consumption. whether roasting their delcious seeds white or to use them in replacement of other cooking oils, Sunflower oil has served them as a healthy alternative. Sunflower seeds are very healthy, "containing 36-342% oil and 38% protein meal." It is easy to see why the Philipines switched to this source. Recently, Central Luzon State University has decided to "revive its sunflower production not for the edible oil but for biofuel." Researching their nutrious content with high amoutns of oil and protein, the university has decided that it sunflowers can be used to produce biofuel (Sunflowers in the Philipines). Since they are known for their oil content they might as well be used for oil purposes. Since theyre edible, they should not do harm to the enviorment or to people like other fuel resources. In fact, switching to Sunflower oil will actually benefit the Earth by lowering pollution which is caused by the current fuel used for automobiles. If ships were to utilize this oil instead, oil leaks will not harm animals as much. Overall the sunflower can provide great things as long as we use its properties. They're also renewable meaning we could reuse it and they could be used for mutiple reasons.

Sunflowers are not expensive to grow. They can be cultivated in community gardens like the ones produced down 5th and 6th stree of downton Phoenix.( Sea of Sunflowers Becomes Biodiesel) They're a cheaper alternative compared to mining for oil which takes electricity and power. Cultivating Sunflowers is as easy as planting other vegetations, plants, and fruits. In fact it only takes 105 days to grow.(Sunflowers in the philipines). According to Rita T. Dela Cruz, sunflowers are recognized as one of the " most costeffective and environment-friendly energy sources to produce biofuels." They do not cause harm to the environment, in fact it will benefit our atmosphere and decrease global warming caused greatly by the use of oil dependent cars. to convert seeds to usable oil, the facility grinds the wast rpoducts and presses the seeeds into small pellets which a fed to a gasifier chamber. this process is alot faster and cheaper for oil production industry.

why not use something beneficial to our society rather than sticking to something is continously harming our earth? Sunflower oil is the solution to our global warming problems caused by gas dependent cars. Sunflower seeds will help even more than the inventions of hybrid or electric cars. Sunflowers will never be extinct if we continously cultivate them so theyre a reliable source.



### **SCORE POINT 3**

The **introduction** develops a **thesis**, moving from the general (*"Everything is connected into a whole.* One small factor can greatly change the community and our lifestyles...") to the more specific (*"As problem solvers, we have turn to new alternatives and hybrids to help save our planet and corporations.*"). This is followed by a subtle but clear roadmap for the essay: *"Sunflower seeds are a better alternative to use to create biofuels because of their oil rich content, theyre inexpensive to cultivate, and they work efficiently as replacements for gasoline oil.*" The **introduction** is more effective than the **conclusion**, which provides unfounded inferences (*"Sunflower oil is the solution to our global warming problems," "Sunflower seeds will help even more than the inventions of hybrid or electric cars,"* and *"...will never be extinct..."*). The overall **progression of ideas** from beginning to end is adequate although body paragraph 1 (paragraph 2) is more focused than body paragraph 2 (paragraph 3). The essay utilizes some **transitional strategies** (e.g., *"It is easy to see...", "In fact...", "Overall..."*) to connect ideas.



Purpose and Organization • Sample 4-Point

### STUDENT RESPONSE

There is a lot of research and experimentation happening across the country currently as scientists try to determine reliable sources of energy that can be produced from organic matter. Sunflowers are emerging as one of most promising agricultural crops we have studied so far. They are being cultivated around the world in order to try and provide a solution for our over dependence on nonrenewable fuels. Sunflowers are a cost effective and environmentally friendly source of energy that we can harness to create biofuels. This easily harvested plant has great potential to help us cut back on other energy sources that we are using up too quickly, boost our economy while doing so, and help the environment.

Sunflowers can produce a large amount of biodiesel that can be used to power various things. We can draw enough energy from them to power a significant amount of a facility or product which would normally use up a lot of resources that cannot be renewed. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" the author, Adam Burke, writes about a facility in Dove Creek, Colorado where they are growing sunflowers, as well as using them to power their plant that creates food-grade sunflower oil. The text says "The system will eventually produce a third of the electricity and all of the heat needed to run the plant." The power provided from sunflowers is enough to have a major effect on decreasing the amount of harmful resources we use to run our factories. One third of the electricity and all of the heat of almost every facility in America would save us an immense quantity of nonrenewable sources. The fuel that we can create from sunflowers can also be used to power sources of transportation. In Source #1, "Biofuel from Sunflower: A Bright Opportunity for the Sun-loving Bloom." by Rita T. dela Cruz the article states "an Italian farming association is working on biofuels produced from sunflowers and sugar beets. Its sunflower oil-powered boat premiered at the recent Kyoto Protocol conference in Montreal. It sounded a bit off-beat, but the boat ran fine." If we were able to incorporate this fuel into almost all modes of transportation the effect it would have on our economy would be tremendous. As well as saving us plenty of money having vechicles powered by biofuels would also help us cut down on our usage of fossil fuels, which is one of the main nonrenewable energy sources that we are depending on much too heavily.

The energy sunflowers could provide us is very easily accessible. First of all, along with being researched by scientists, the energy that sunflowers can provide is also being tested by volunteers and high school students, proving that it is not an intricate source of energy to access and incoporate into our products and sources of production. In Source #2, "Sea of Sunflowers Becomes Biodiesel" the author writes about how near Phoenix a project has started up called Valley of the Sunflowers Project where volunteers have planted sunflower seeds and are now tending to the flowers so that they can be harvested. Braden Kay, the Sunflowers Project Manager says "What we'll do is take these seeds, press these seeds for oil, and then the bioscience class will make these seeds into biodiesel," Then the article continues "They'll then use the biodiesel to power a solar powered hybrid car they're creating in class". If volunteers and high school students can extract biodiesel from these flowers and use it to power a car then professionals and scientists certainly can too. Creating biodiesel from sunflower pieces is also a relativily uncomplicated process. This would make it easy for us to produce biofuels in large amounts. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" by Adam Burke the author describes the simple way that a facility in Dove Creek, Colorado uses sunflower waste material to power their business. "The facility's main green innovation is the way that waste products-in this case sunflower hulls and pieces of plant material- are transformed into fuel. Machines grind up this biomass and press it into little fuel pellets, which look like rabbit food. The pellets are then fed into a special gasifer



chamber." The procedure of converting these leftover sunflower pieces into usable energy is not complex and the implications of this process would have great benefits as we would save a lot of money and it would help make our nonrenewable resources last us longer.

Growing sunflowers also has many other environmental benefits. Besides the biofuel that they can provide there has also been research done showing how they can help with issues like pollution. In Source #4, "Shrinking Violets They Aren't", by Michael Tortorella the author writes about a community garden in Brooklyn that has planted a perimeter of sunflowers around their lot. Deborah Greig, a coordinator at the community garden said "The sturdy sunflower does not shrink from a little hard labor", then she added "I think they do some catching of the trash that blows in." The way that these sunflowers could protect other more vulnerable plants from damaging trash could be very helpful to us as litter oftens blows into plants and affects how they grow. Sunflowers can also do important things like helping to keep the soil cleaner. Later in the Source #4 the author writes "growers are experimenting with sunflowers in a soil treatment process called phytoremediation. In field tests last summer, the plant's deep taproots seemed to pull heavy metal contaminants like mercury and lead from the garden's polluted soil." Growing sunflowers in areas that are polluted could help draw out some of the harmful things in the ground. This could make these areas of land healthy enough that we could grow other plants there again, and having more land to grow on could help improve our economy.

Sunflowers are capable of providing us with a dependable source of natural energy through biofuels. They are currently one of the biggest hopes to help solve our problem with overdependance on nonrenewable energy sources that also harm our environment. Biofuels can easily be drawn from sunflowers and they provide large quantities of fuel that can be used for various things. Along with that planting them also has many other positive affects on the environment.

#### ANNOTATION

### **SCORE POINT 4**

This entry-level "4" response is clearly organized and narrowly focused. Instead of attempting to cover all uses of sunflowers (including food products from sunflowers), the essay concentrates on the potential for sunflowers to help the environment. The **introduction** provides some brief context ("...scientists try to determine reliable sources of energy..."), then provides a **controlling idea** ("sunflowers are emerging...promising...provide a solution for our over dependence..."), and ends with a somewhat formulaic presentation of the supporting details to follow. The **conclusion** does little more than repeat the information in the **introduction**; it does, however, tighten the controlling idea just a bit, nudging it towards an evaluative **thesis**, albeit a self-evident one: "one of the biggest hopes to help solve our problem...." Although the introduction and conclusion are not particularly effective, the **progression of ideas** is more characteristic of a score point 4 paper. Paragraph two is tightly focused on how sunflowers is easily harvested; paragraph four focuses on the softer environmental benefits of sunflowers. The **transitions** are generally effective (e.g., "If we were...," "...can also...," "As well as...," etc.).



Purpose and Organization • Sample 4-Point

#### STUDENT RESPONSE

As innovations of this day and age continue to delve into the once thought impossible category of accomplishments, people are in constant wonder at what we, as a human race, will discover next. Though man has taken insurmountable strides as far as easing lives and bettering conditions for human beings throughout the world, some of these discoveries have opened a door to environmental damage and codependency on resources that will one day run out. One of these resources, among several others, is gas and diesel used for machinery, vehicles, and various other everyday amenities. In America alone at least one household owns a vehicle of some kind, not to mention the plethora of farms and crop plantations that rely heavily on large machinery to harvest and tend to its agriculture and varying large city transportation systems and cars, with the exception of hybrid vehicles, that use hundreds of gallons of fuel a day. This is only to brush the surface of the reliance our country, our world, has placed on a resource that is not guaranteed forever. The question now is what will replace fuel once it is gone, and how can the human race do everything possible to make sure this new alternative does not destroy the delicate balance in which the environment, and the life within it, hangs. In the pursuit of answers to this question, the Bio-fuel Acts and Department of Agriculture have sequestered a source worthy of consideration for a bio-fuel: sunflowers (Source #1).

One may ask, "how is a flower going to fuel our cars and airplanes?" This can be answered with one word, innovation. Various research institutions have been honing in on finding and studying cost effective and "green" energy sources, generally produced from agricultural crops and organic matter, to produce the next effective bio-fuel (Source #1). Sunflowers and the oil from their seeds have a very likely potential to be a bio-source for substances like ethanol (Source #1). Several agriculturalists are beginning to implement sunflower fields into their farms as a product of higher income and in the hopes that they can contribute their share to renewable energy (Source #3). The process in which sunflowers could be used as a bio-fuel is rather simple. In short, bio-diesel plants would be built that would have the ability to harvest oil from the sunflower seeds and convert that oil into bio-diesel.

Besides the fact that sunflowers would be renewable, they are in the running for the next bio-fuel for their eco-friendliness as well. The waste products of the sunflower and sunflower seeds, sunflower hulls and small leftover plant material, are the very elements that could be transformed into a useful fuel by "machines that would grind up this biomass and press it into little fuel pellets and the pellets would then be fed into a special gasifier chamber," (Source #3). With every ingredient in this renewable recipe being natural, emissions given off by cars when running on this bio-fuel would not damage the atmosphere and destroy the o-zone that protects life on earth from harmful sun rays. With its power providing capabilities, sunflowers could also supply its very own conversion plants with up to one third the power it needs to make oil harbored into fuel (Source #3). Not only this, but if sunflowers were to be the next chapter in human innovation, much needed jobs would become available to people across the globe. In recent years it has been evident that unemployment rates have been rising at an alarming rate. Solutions and job opportunities have been at the forefront of important discussion in America alone for several years now, and it is time to take action.

Creating fuel from sunflowers would be the equivalent of hitting two birds with one stone, per say. Not only would the world be gaining an efficient and affordable alternative to diesel and gas today, as well as an environmental-friendly bio-diesel, but it would also reap the benefits of having hundreds if not thousands of optimal job opportunities. As fast as society is moving in the twenty-first century, it is time



to take the next step in protecting the environment in which all life known is sustained and creating a renewable energy source as soon as possible to relieve the dependency the human species has acquired for fuel. In all, the facts speak for themselves, indicating a time of change is needed and that sunflowers just may be the catalyst to do the job.

#### ANNOTATION

### **SCORE POINT 4**

In this essay, the **introduction** moves from general to specific, setting the context for the issue of fuel dependency and leading to a clear **controlling idea** (sunflowers as *"worthy consideration"*). The **introduction** has no clear **thesis**, but the culminating thought in the essay **conclusion** provides a clear one: *"...sunflowers just may be the catalyst to do the job."* The essay has a clear and effective **organizational structure** moving from paragraph one, which describes the problem, and paragraphs two and three detailing the solution. This structure is fully sustained and focused. The essay demonstrates a consistent use of a variety of **transitional strategies** within and between ideas (e.g., *"One of these resources...", "Besides the fact that sunflowers would be renewable, they are in the running for the next biofuel for their eco-friendliness as well.", <i>"Not only this, but...", "Not only would the world be gaining an efficient and affordable alternative to diesel and gas today, as well as an environmental-friendly bio-diesel, but it would also...", <i>"In all..."*).



Development and Elaboration • Sample 1-Point

### STUDENT RESPONSE

Sunflowers are being used for everyhting especially for biofuels and oils and other kind of things that we use in our lives so the process of being so tall is actually and advantage so that way we can ahve more of one plant and what were missing from another, and it wont abe much because we would already have that first part. even tough we may need alot of it alot can be produced by little also it just depends what or how youre using it.

#### ANNOTATION

### **SCORE POINT 1**

The "evidence" provided in this response is minimal, random, and vague (e.g., "...it wont abe much because we would already have that first part. even tough we may need alot of it..."). With no **thesis** (or even a **central idea**) as a guide, the ideas presented are confusing. There are no citations/attributions to sources. There is no identifiable use of **elaborative techniques** although the response may be attempting to make low level inferences (e.g., "even tough we may need alot of it alot can be produced by little also it just depends what or how youre using it"). The **vocabulary** is limited and very ineffective (e.g., "it," "tall," "alot," "little") and there is no evidence of a purpose-specific **style**.



Development and Elaboration • Sample 1-Point

### STUDENT RESPONSE

Its been said that using a sunflower would be a smart new biofuel. I agree not personally of course but for this paper i have too. So we have apperently started planting a bunch of sunflower seeds and volunteers tend to them when they can. This is just one step in making biofuel out of sunflowers and saving the planet!

Ill begin now by saying how it would be pretty cool if this could happen. Farmers around the midwest would kill for a renewable fuel source to save some green and make a bigger check at the end of harvest season. but at the same time doing this would effect the job market. See this what i don't understand we have all these people working to fix a problem but what happens when they fix it and the people that worked on that problem lose there jobs? If we created a biofuel to power diesel tractors farmers would most likely teach themselves to fix the machines.

Apperently they'd make diesel techs become biotechs. I guess the jobs lost from destroying one job would be fix by the amount of people it would take to keep the bio fuel world turning

### ANNOTATION

### **SCORE POINT 1**

This response provides minimal and sometimes confusing support for ideas. Concrete evidence from the source material is missing and there are no citations/attributions. In part because there is no **thesis**, the weak use of **elaborative techniques** fails to develop relevant support (e.g., "See this what i don't understand we have all these people working to fix a problem but what happens when they fix it and the people that worked on that problem lose there jobs?"). Rather than elaborate, the writer summarizes and/or provides illogical inferences (e.g., "If we created a biofuel to power diesel tractors farmers would most likely teach themselves to fix the machines."). **Vocabulary** is limited and ineffective for audience and purpose, and there is no evidence of an appropriate style (e.g., "Farmers would kill for," "save some green," and "I guess...").



Development and Elaboration • Sample 2-Point

### STUDENT RESPONSE

There are many ways in which the sunflower can be used to create bio-fuel. Community's have come together to plant sunflowers to help both their country and their community. Farmers have began planting sunflowers in hopes of receiving a higher income and helping their country in the process. Across the United States we are beginning to see a change; people are looking for new and cheaper ways to produce fuel and sunflowers could be the next thing.

In Biofuel from Sunflower communities like the city of Phoenix have began taking empty lots and creating large gardens of sunflowers. The garden is tended by many volunteers and the schools have a large part in it too. They take the sunflowers and create oil and then produce a biofuel. The schools get a learning process out of it and also see changes happen to the community as more people start to embrace the idea of sunflowers as an alternative fuel.

In the small town of Dove Creek Colorado farmers have started to embrace the idea of planting sunflowers as well. They were promised a chance at being paid more and in the process they would help the community and country. By taking a huge risk they started to plant sunflowers becuase Berman of San Juan Bioenergy would build an energy plant for them and pay the farmers. However, after a few years the industry fell. Farmers however, are strong willed and they continued to plant sunflowers in hopes of still recieving more. By taking a huge risk they could end up losing it all or with more money in their pockets then they have seen in a long time.

People are beginning to take on this "green" thinking. We are looking for cheaper, cleaner, and healthier ways to produce things such as fuel and food. Sunflowers are showing signs of becoming something very great. They produce many helpful things for our country and I'm excited to see what comes next as we strive towards our goals as a country.



### **SCORE POINT 2**

Because there is no strong unifying **thesis** in this response, the details provided seem randomly selected and weakly integrated. There is a single use of attribution of source material (e.g., *"In Biofuel from Sunflower..."*); however, that attribution is inaccurate: the ideas in paragraph two of the response actually come from source #2, "Sea of Sunflowers." Attempts at elaborating source ideas is mostly via summary of two sources: paragraph 2 summarizes Source #2, and paragraph 3 largely summarizes Source #3. However, the information provided for paragraph 3 fails to include the shift from biodiesel fuel to sunflower [cooking] oil, a critical omission. The language use is somewhat inconsistent (e.g., *"embrace"* and *"strive"* vs. very general language such as *"becoming something very great"*). The response shows some awareness of an appropriate explanatory **style** (e.g., *"Across the United States we are beginning to see a change; people are looking for new and cheaper ways to produce fuel and sunflowers could be the next thing"*).



Development and Elaboration • Sample 2-Point

### STUDENT RESPONSE

Sunflowers are a far overlooked flower. Not only are they lovely to look at and can brighten one's day, but they have many uses as well. One of which that could be an anwer to many issues of today's need for new sources of biofuel and alternative engergy than oil and gasoline. These wonderful yellow flowers can be used to create the biofuel we need to sustain our society's better and economically more efficient.

From an article of the U.S. Departnment of Agriculture it was stated that already in law today, "it is required that a minimum of 1% biodiesel by volume be blended into diesel engine fuels." In other words currently diesel fuel is only used for 1% of all of it that is produced. So why not use much more of it that can be produced efficiently and for a cheap price? Sunflowers seem to be a likely answer to this question. It's potential as a bio-source for ethanol should be the new focus for all. With proper research and thorough development this can be done. Already experts in Brazil are powering boats and other contraptions with this fuel from sunflower seeds.

For farmers as well this new idea of fuel usage from the sunflower seeds is becoming more and more prevalent. In an artcile from NPR recently it was explained how farmers in Dove Creek are using this new idea as a drive for more income. They are hoping to grow sunflowers to produce this fuel to power all kinds of contraptions and cars, even their tractors. However the present time isn't helping them because of the lack on attempting to study the sunflower oil. They need proof first to help them in creating this opportunity for new income. When this is done economically countries can use this new fuel efficiently and better provide for their people and families.

The use of the sunflower is continuing to be overlooked, it can be used well if we study and take the time to bring for new biofuel. We must unite communities and bring this great opportunity for alternate fuel for all to increase the welfare and future of world economics.



### **SCORE POINT 2**

This response includes specific evidence from two sources. There is some citation/attribution to source materials (e.g., *"From an article of the U.S. Departnment of Agriculture it was stated...", "In an artcile from NPR..."*). The response shows some attempts at **elaboration** via inference although those inferences are often either rather obvious (e.g. *"When this is done economically countries can use this new fuel efficiently and better provide for their people and families"*) or inaccurate/over-simplified (*"In other words currently diesel fuel is only used for 1% of all of it that is produced"*). **Language use** is somewhat uneven with some nice vocabulary (*"prevalent"*) and then some less appropriate and repetitive vocabulary (*"contraption"*). The **style** is uneven, using techniques such as an effective rhetorical question (*"So why not use much more of it that can be produced efficently and for a cheap price?"*) and imperatives (*"We must unite"*) but is also flawed by confusing sentences such as, *"However the present time isn't helping them because of the lack on attempting to study the sunflower oil."* 



Development and Elaboration • Sample 3-Point

#### STUDENT RESPONSE

Cultivating sunflower seeds has become a huge discussion around the world for many reasons. Sunflower seeds have proven to be useful in many different ways, all the way from cooking, to aesthetic reasons. Sunflower seeds can be used to create biofuel, but also may have economic implications that could be a benefit to our society. Through the past years, people have grown to see sunflowers as a plus to the community and have taken strides to grow and cultivate them for many different purposes.

Sunflower seeds can be cultivated for many reasons, one of them being biofuel. Because of the recent industrial revolution, fuel has become a necessity to society. Fuel is a high price to pay for many people who struggle day to day and also causes major pollution to the atmosphere. Many people have searched for cheaper, more efficient, and less economically damaging ways to run their cars and get to work. People have found ways in which sunflower seeds can be used to create biofuel. Planting sunflower seeds is a win-win situation because they are beautiful to look at, but also can be cultivated to create biofuel. One way that they can make biofuel is by planting the sunflower seeds, harvesting them, taking the seeds, pressing them for their oil to create biodiesel and biofuel that could help run hybrid cars, so that people wouldn't have to use as much fuel (Source #2). The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil) and they can also be used to help run cars (which saves people money and is better environmentally) (Sourve #1). There are many ways sunflower seeds can be formed into biofuel, but there are also many economic implications of this process too.

Turning sunflower seeds into biofuel can be good or bad depending on the way you look at. It is good because it doesn't cause as much pollution to the atmosphere and is reusable, but could also have some economical problems. Although it will, in the end, be cheaper than fuel, the process for creating that much biofuel from the seeds would call for many workers and employees. More employees and workers means more money needed to pay for all that work and energy put in to not only growing and harvesting the sunflowers and their seeds, but also pressing them and extracting the oil from them (Source #2). Keeping the sunflowers well and growing is a tedious and arduous task and environmental factors could play a major part in how many sunflowers actually live to see harvest day. If for some reason there is a fire, it could burn away all the sunflowers, so that all the hard work being put into keeping them intact goes to waste, and ends up costing more than expected. Or if there is too much rain, it could drown all the sunflowers and cause them die, also wasting money. The economic implications for using sunflower seeds for biofuel is a risk that must be taken if society is ready to give up their hunger for fuel, and move on to a more environmentally productive source. Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating with the harvest.

Sunflower seeds could be made into biofuel, but only with much help from everyone, including the environment. Therefore, it could either be a benefit to the economy, or be a disaster, depending on how everything works out. Starting this project as another fuel source could be a major boom, or a major bust, but it is a risk that is needed to be taken if society is ready to take a step forward to creating a greener and more efficient earth.



### **SCORE POINT 3**

This essay unevenly integrates and develops ideas from the sources. Specifically, some general evidence from the source material is integrated and relevant, especially in paragraph two (e.g., "One way that they can make biofuel is by planting the sunflower seeds, harvesting them, taking the seeds, pressing them for their oil to create biodiesel..."). Any elaboration in paragraph two relies on general summary [e.g., "The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil") and they can also be used to help run cars (which saves people money and is better environmentally)"]. However, the information in the third paragraph relies solely on drawing conclusions about the sunflower industry that are not entirely illogical but not source based either (e.g., "...the process...would call for many workers and employees. More employees and workers means more money needed ...;" "Keeping the sunflowers well and growing is a tedious and arduous task and environmental factors could play a major part...;" "If for some reason there is a fire, it could burn away all the sunflowers, ... Or if there is too much rain, it could drown all the sunflowers..."). Some details selected are attributed (e.g., "... so that people wouldn't have to use as much fuel (Source #2).", "... (Sourve #1)."). Vocabulary is appropriate for the audience and purpose, and the style is appropriate for the explanatory purpose (e.g., "The economic implications for using sunflower seeds for biofuel is a risk that must be taken if society is ready to give up their hunger for fuel, and move on to a more environmentally productive source").



Development and Elaboration • Sample 3-Point

### STUDENT RESPONSE

Everything is connected into a whole. One small factor can greatly change the community and our lifestyles. One small change can lead to a revolutionary discovery. Believe it or not, even suprisingly unrelated things such as sunflowers and the biofuel industry are greatly connected and beneficial when combined. As problem solvers, we have turn to new alternatives and hybrids to help save our planet and corporations. Sunflower seeds are a better alternative to use to create biofuels because of their oil rich content, theyre inexpensive to cultivate, and they work efficiently as replacements for gasoline oil.

Sunflower crops became extremely popular in the Philipines because they could easily grow on Philipine lands and because they're a great source of natural oils. During the 70's the Philipines enjoyed their surpluses of Sunflowers as part of daily consumption. whether roasting their delcious seeds white or to use them in replacement of other cooking oils, Sunflower oil has served them as a healthy alternative. Sunflower seeds are very healthy, "containing 36-342% oil and 38% protein meal." It is easy to see why the Philipines switched to this source. Recently, Central Luzon State University has decided to "revive its sunflower production not for the edible oil but for biofuel." Researching their nutrious content with high amoutns of oil and protein, the university has decided that it sunflowers can be used to produce biofuel (Sunflowers in the Philipines). Since they are known for their oil content they might as well be used for oil purposes. Since theyre edible, they should not do harm to the enviorment or to people like other fuel resources. In fact, switching to Sunflower oil will actually benefit the Earth by lowering pollution which is caused by the current fuel used for automobiles. If ships were to utilize this oil instead, oil leaks will not harm animals as much. Overall the sunflower can provide great things as long as we use its properties. They're also renewable meaning we could reuse it and they could be used for mutiple reasons.

Sunflowers are not expensive to grow. They can be cultivated in community gardens like the ones produced down 5th and 6th stree of downton Phoenix.( Sea of Sunflowers Becomes Biodiesel) They're a cheaper alternative compared to mining for oil which takes electricity and power. Cultivating Sunflowers is as easy as planting other vegetations, plants, and fruits. In fact it only takes 105 days to grow.(Sunflowers in the philipines). According to Rita T. Dela Cruz, sunflowers are recognized as one of the " most costeffective and environment-friendly energy sources to produce biofuels." They do not cause harm to the environment, in fact it will benefit our atmosphere and decrease global warming caused greatly by the use of oil dependent cars. to convert seeds to usable oil, the facility grinds the wast rpoducts and presses the seeeds into small pellets which a fed to a gasifier chamber. this process is alot faster and cheaper for oil production industry.

why not use something beneficial to our society rather than sticking to something is continously harming our earth? Sunflower oil is the solution to our global warming problems caused by gas dependent cars. Sunflower seeds will help even more than the inventions of hybrid or electric cars. Sunflowers will never be extinct if we continously cultivate them so theyre a reliable source.



### **SCORE POINT 3**

The essay relies on support from two sources (Source 1 and Source 2). Each of the two body paragraphs integrates (and attempts to synthesize) some evidence from both sources. Some citation/attribution is attempted (e.g., "...(Sunflowers in the philipines)" should be "Biofuel from Sunflower" or "Source 1." Sunflowers in the Phillipines was a source subtopic, not a title). Some evidence is accurately quoted from sources. Some elaboration is via source summary, often paraphrasing information at the sentence level (e.g., "...as part of daily consumption" vs. "not for the edible oil"). There are also some inferences, sometimes text-based (e.g., "switching to Sunflower oil will actually benefit the Earth by lowering pollution which is caused by the current fuel used for automobiles") but sometimes of questionable accuracy ("If ships were to utilize this oil instead, oil leaks will not harm animals as much"). Some of these inferences could be a result of apparent confusion between consumable sunflower oil and sunflowersourced biodiesel fuel. Overall, the language use is adequate although generalities can sometimes obscure meaning (e.g., "Overall the sunflower can provide great things as long as we use its properties") or be too obvious ("They're also renewable meaning we could reuse it and they could be used for multiple reasons") or somewhat inaccurate ("mining for oil"). The essay shows an awareness of appropriate explanatory style.



Development and Elaboration • Sample 4-Point

### STUDENT RESPONSE

There is a lot of research and experimentation happening across the country currently as scientists try to determine reliable sources of energy that can be produced from organic matter. Sunflowers are emerging as one of most promising agricultural crops we have studied so far. They are being cultivated around the world in order to try and provide a solution for our over dependence on nonrenewable fuels. Sunflowers are a cost effective and environmentally friendly source of energy that we can harness to create biofuels. This easily harvested plant has great potential to help us cut back on other energy sources that we are using up too quickly, boost our economy while doing so, and help the environment.

Sunflowers can produce a large amount of biodiesel that can be used to power various things. We can draw enough energy from them to power a significant amount of a facility or product which would normally use up a lot of resources that cannot be renewed. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" the author, Adam Burke, writes about a facility in Dove Creek, Colorado where they are growing sunflowers, as well as using them to power their plant that creates food-grade sunflower oil. The text says "The system will eventually produce a third of the electricity and all of the heat needed to run the plant." The power provided from sunflowers is enough to have a major effect on decreasing the amount of harmful resources we use to run our factories. One third of the electricity and all of the heat of almost every facility in America would save us an immense quantity of nonrenewable sources. The fuel that we can create from sunflowers can also be used to power sources of transportation. In Source #1, "Biofuel from Sunflower: A Bright Opportunity for the Sun-loving Bloom." by Rita T. dela Cruz the article states "an Italian farming association is working on biofuels produced from sunflowers and sugar beets. Its sunflower oil-powered boat premiered at the recent Kyoto Protocol conference in Montreal. It sounded a bit off-beat, but the boat ran fine." If we were able to incorporate this fuel into almost all modes of transportation the effect it would have on our economy would be tremendous. As well as saving us plenty of money having vechicles powered by biofuels would also help us cut down on our usage of fossil fuels, which is one of the main nonrenewable energy sources that we are depending on much too heavily.

The energy sunflowers could provide us is very easily accessible. First of all, along with being researched by scientists, the energy that sunflowers can provide is also being tested by volunteers and high school students, proving that it is not an intricate source of energy to access and incoporate into our products and sources of production. In Source #2, "Sea of Sunflowers Becomes Biodiesel" the author writes about how near Phoenix a project has started up called Valley of the Sunflowers Project where volunteers have planted sunflower seeds and are now tending to the flowers so that they can be harvested. Braden Kay, the Sunflowers Project Manager says "What we'll do is take these seeds, press these seeds for oil, and then the bioscience class will make these seeds into biodiesel," Then the article continues "They'll then use the biodiesel to power a solar powered hybrid car they're creating in class". If volunteers and high school students can extract biodiesel from these flowers and use it to power a car then professionals and scientists certainly can too. Creating biodiesel from sunflower pieces is also a relativily uncomplicated process. This would make it easy for us to produce biofuels in large amounts. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" by Adam Burke the author describes the simple way that a facility in Dove Creek, Colorado uses sunflower waste material to power their business. "The facility's main green innovation is the way that waste products-in this case sunflower hulls and pieces of plant material- are transformed into fuel. Machines grind up this biomass and press it into little fuel pellets, which look like rabbit food. The pellets are then fed into a special gasifer



chamber." The procedure of converting these leftover sunflower pieces into usable energy is not complex and the implications of this process would have great benefits as we would save a lot of money and it would help make our nonrenewable resources last us longer.

Growing sunflowers also has many other environmental benefits. Besides the biofuel that they can provide there has also been research done showing how they can help with issues like pollution. In Source #4, "Shrinking Violets They Aren't", by Michael Tortorella the author writes about a community garden in Brooklyn that has planted a perimeter of sunflowers around their lot. Deborah Greig, a coordinator at the community garden said "The sturdy sunflower does not shrink from a little hard labor", then she added "I think they do some catching of the trash that blows in." The way that these sunflowers could protect other more vulnerable plants from damaging trash could be very helpful to us as litter oftens blows into plants and affects how they grow. Sunflowers can also do important things like helping to keep the soil cleaner. Later in the Source #4 the author writes "growers are experimenting with sunflowers in a soil treatment process called phytoremediation. In field tests last summer, the plant's deep taproots seemed to pull heavy metal contaminants like mercury and lead from the garden's polluted soil." Growing sunflowers in areas that are polluted could help draw out some of the harmful things in the ground. This could make these areas of land healthy enough that we could grow other plants there again, and having more land to grow on could help improve our economy.

Sunflowers are capable of providing us with a dependable source of natural energy through biofuels. They are currently one of the biggest hopes to help solve our problem with overdependance on nonrenewable energy sources that also harm our environment. Biofuels can easily be drawn from sunflowers and they provide large quantities of fuel that can be used for various things. Along with that planting them also has many other positive affects on the environment.

#### ANNOTATION

### **SCORE POINT 4**

One of the strengths of this response is that rather than developing support source-by-source, the essay integrates information from all source materials thematically. For example, paragraph two integrates information from source one and three to support the benefits of using sunflowers as a fuel source for both manufacturing and for transportation. Paragraph three develops the idea that sunflower conversion is easily accomplished both as a primary goal and as a use for byproducts, synthesizing information from multiple sources to do so. Source materials are nicely cited ("In Source #3, 'Sunflower Power...' the author, Adam Burke, writes..."). Quotes from source materials are combined with concise source summary (see sentence two in paragraph two as an example), and then inferences are drawn. Examples of such inferences include: "One third of the electricity and all of the heat of almost every facility in America would save us an immense quantity of nonrenewable resources" (paragraph two), "If volunteers and high school students can extract biodiesel...then professionals and scientists certainly can too" (paragraph three), and "[The cleansing ability of sunflowers] could make [polluted] areas of land healthy enough that we could grow plants there again...improve our economy" (paragraph four). These inferences lend credibility to the final evaluation in the essay that sunflowers are "one of the biggest hopes..." Language use is generally effective ("intricate," "harness," "vulnerable"), and the style is appropriate for the audience and explanatory purpose.



Development and Elaboration • Sample 4-Point

#### STUDENT RESPONSE

As innovations of this day and age continue to delve into the once thought impossible category of accomplishments, people are in constant wonder at what we, as a human race, will discover next. Though man has taken insurmountable strides as far as easing lives and bettering conditions for human beings throughout the world, some of these discoveries have opened a door to environmental damage and codependency on resources that will one day run out. One of these resources, among several others, is gas and diesel used for machinery, vehicles, and various other everyday amenities. In America alone at least one household owns a vehicle of some kind, not to mention the plethora of farms and crop plantations that rely heavily on large machinery to harvest and tend to its agriculture and varying large city transportation systems and cars, with the exception of hybrid vehicles, that use hundreds of gallons of fuel a day. This is only to brush the surface of the reliance our country, our world, has placed on a resource that is not guaranteed forever. The question now is what will replace fuel once it is gone, and how can the human race do everything possible to make sure this new alternative does not destroy the delicate balance in which the environment, and the life within it, hangs. In the pursuit of answers to this question, the Bio-fuel Acts and Department of Agriculture have sequestered a source worthy of consideration for a bio-fuel: sunflowers (Source #1).

One may ask, "how is a flower going to fuel our cars and airplanes?" This can be answered with one word, innovation. Various research institutions have been honing in on finding and studying cost effective and "green" energy sources, generally produced from agricultural crops and organic matter, to produce the next effective bio-fuel (Source #1). Sunflowers and the oil from their seeds have a very likely potential to be a bio-source for substances like ethanol (Source #1). Several agriculturalists are beginning to implement sunflower fields into their farms as a product of higher income and in the hopes that they can contribute their share to renewable energy (Source #3). The process in which sunflowers could be used as a bio-fuel is rather simple. In short, bio-diesel plants would be built that would have the ability to harvest oil from the sunflower seeds and convert that oil into bio-diesel.

Besides the fact that sunflowers would be renewable, they are in the running for the next bio-fuel for their eco-friendliness as well. The waste products of the sunflower and sunflower seeds, sunflower hulls and small leftover plant material, are the very elements that could be transformed into a useful fuel by "machines that would grind up this biomass and press it into little fuel pellets and the pellets would then be fed into a special gasifier chamber," (Source #3). With every ingredient in this renewable recipe being natural, emissions given off by cars when running on this bio-fuel would not damage the atmosphere and destroy the o-zone that protects life on earth from harmful sun rays. With its power providing capabilities, sunflowers could also supply its very own conversion plants with up to one third the power it needs to make oil harbored into fuel (Source #3). Not only this, but if sunflowers were to be the next chapter in human innovation, much needed jobs would become available to people across the globe. In recent years it has been evident that unemployment rates have been rising at an alarming rate. Solutions and job opportunities have been at the forefront of important discussion in America alone for several years now, and it is time to take action.

Creating fuel from sunflowers would be the equivalent of hitting two birds with one stone, per say. Not only would the world be gaining an efficient and affordable alternative to diesel and gas today, as well as an environmental-friendly bio-diesel, but it would also reap the benefits of having hundreds if not thousands of optimal job opportunities. As fast as society is moving in the twenty-first century, it is time



to take the next step in protecting the environment in which all life known is sustained and creating a renewable energy source as soon as possible to relieve the dependency the human species has acquired for fuel. In all, the facts speak for themselves, indicating a time of change is needed and that sunflowers just may be the catalyst to do the job.

### ANNOTATION

### **SCORE POINT 4**

In this response, multiple source details are integrated and attributed (e.g., "...the Bio-fuel Acts and Department of Agriculture have sequestered a source worthy of consideration for a biofuel: sunflowers (Source #1).", "... (Source #3)."). The essay demonstrates the effective use of a variety of elaborative techniques (e.g., rhetorical questions; logical reasoning). For example, when details are developed via source summary, they are done so concisely (e.g., "The process in which sunflowers could be used as a bio-fuel is rather simple. In short, biodiesel plants would be built that would have the ability to harvest oil from the sunflower seeds and convert that oil into bio-diesel") and effectively (e.g., Paragraph 2 is a fairly concise summary of the process, nicely framed with a rhetorical question as context for an uninformed reader). Some elaboration relies on prior knowledge (widespread rising unemployment rates; destruction of the "o-zone" layer), but the resulting inferences are logical. The vocabulary is precise and effective (e.g., "sequestered," "honing in on," "ingredient in this renewable recipe"), and the language contributes to a style that is appropriate and highly effective for the explanatory purpose and audience. The style is also enhanced by the effective pairings of long and short sentences (see the first three and last two sentences in paragraph two as examples).



Conventions • Sample 0-Point

#### STUDENT RESPONSE

Sunflowers are being used for everyhting especially for biofuels and oils and other kind of things that we use in our lives so the process of being so tall is actually and advantage so that way we can ahve more of one plant and what were missing from another, and it wont abe much because we would already have that first part. even tough we may need alot of it alot can be produced by little also it just depends what or how youre using it.

#### ANNOTATION

### **SCORE POINT 0**

This brief response demonstrates no control of grade 11 conventions.

**Sentence Structure**: There are only two sentences to this response and both are run-on sentences.

**Grammar Usage**: There are many errors with below-grade level frequently confused words (*"and"/*an, *"tough"/*thought, and *"were"/*we're) and an error with plurals (*"kind"/*kinds).

**Spelling**: There are numerous spelling errors (e.g., *"ahve"*, *"tough"*, *"everyhting"*, *"abe"*, and *"alot"*).

**Capitalization**: There are only two sentences in the response and the second sentence fails to use a capital for the first word (*"even"*).

**Punctuation**: There are missing commas, periods, and apostrophes in several places (e.g., "Sunflowers are being used for everyhting especially for biofuels and oils and other kind of things that we use in our lives so the process of being so tall is actually and advantage so that way we can ahve more of one plant and what were missing from another, and it wont abe much because we would already have that first part. even though we need alot of it alot of it can be...").



Conventions • Sample 0-Point

#### STUDENT RESPONSE

Its been said that using a sunflower would be a smart new biofuel. I agree not personally of course but for this paper i have too. So we have apperently started planting a bunch of sunflower seeds and volunteers tend to them when they can. This is just one step in making biofuel out of sunflowers and saving the planet!

Ill begin now by saying how it would be pretty cool if this could happen. Farmers around the midwest would kill for a renewable fuel source to save some green and make a bigger check at the end of harvest season. but at the same time doing this would effect the job market. See this what i don't understand we have all these people working to fix a problem but what happens when they fix it and the people that worked on that problem lose there jobs? If we created a biofuel to power diesel tractors farmers would most likely teach themselves to fix the machines.

Apperently they'd make diesel techs become biotechs. I guess the jobs lost from destroying one job would be fix by the amount of people it would take to keep the bio fuel world turning



### SCORE POINT 0

This response demonstrates a minimal control of grade 11 conventions with many errors.

**Sentence Structure**: Although there is only one formal sentence error (e.g., "See this what i don't understand we have all these people working to fix a problem but what happens when they fix it and the people that worked on that problem lose there jobs?"), few if any sentences are structured well (e.g., "I agree not personally of course but for this paper i have too").

**Grammar Usage**: There are errors in grammar usage including errors with verbs (e.g., *"fix"* instead of "fixed"), a problem with the unnecessary use of the passive voice in the first sentence, and missing verbs (*"See this [is] what…"*). Additionally, there are errors with frequently confused words (e.g., *"Its"/it's, "III"/ I'II, "too"/to, "there"*/their, and *"effect"*/affect – all words that are below-grade level).

**Spelling**: The writer misspells "*apperently*," multiple times.

**Capitalization**: In the second paragraph, the first word in a sentence lacks a capital ("but..."), the personal pronoun "i" lacks a capital, and "the midwest" should have a capital.

**Punctuation**: There are missing commas in several sentences (e.g., in compound sentences: *"I agree not personally of course but for this paper i have too;"* and after introductory elements: *"Apperently they'd make diesel techs become biotechs,"* and *"If we created a biofuel to power diesel tractors farmers would most likely..."*).



Conventions • Sample 1-Point

#### STUDENT RESPONSE

There are many ways in which the sunflower can be used to create bio-fuel. Community's have come together to plant sunflowers to help both their country and their community. Farmers have began planting sunflowers in hopes of receiving a higher income and helping their country in the process. Across the United States we are beginning to see a change; people are looking for new and cheaper ways to produce fuel and sunflowers could be the next thing.

In Biofuel from Sunflower communities like the city of Phoenix have began taking empty lots and creating large gardens of sunflowers. The garden is tended by many volunteers and the schools have a large part in it too. They take the sunflowers and create oil and then produce a biofuel. The schools get a learning process out of it and also see changes happen to the community as more people start to embrace the idea of sunflowers as an alternative fuel.

In the small town of Dove Creek Colorado farmers have started to embrace the idea of planting sunflowers as well. They were promised a chance at being paid more and in the process they would help the community and country. By taking a huge risk they started to plant sunflowers becuase Berman of San Juan Bioenergy would build an energy plant for them and pay the farmers. However, after a few years the industry fell. Farmers however, are strong willed and they continued to plant sunflowers in hopes of still recieving more. By taking a huge risk they could end up losing it all or with more money in their pockets then they have seen in a long time.

People are beginning to take on this "green" thinking. We are looking for cheaper, cleaner, and healthier ways to produce things such as fuel and food. Sunflowers are showing signs of becoming something very great. They produce many helpful things for our country and I'm excited to see what comes next as we strive towards our goals as a country.



### SCORE POINT 1

Given the length and complexity of the writing, this response demonstrates a partial command of grade 11 conventions.

**Sentence Structure**: There are relatively few errors with sentence structure, although there is a problem with parallel structure, a new-to-grade skill (*"…they could end up losing it all or with more money in their pockets then they have seen in a long time"*).

**Grammar Usage**: There are errors with verb use (e.g., "*began*" for begun in two places). There are missing words in a couple of sentences, which make the sentences awkward and difficult to understand on the first pass. There are errors with the frequently confused word "*then*" instead of than.

Spelling: There are a few spelling errors (e.g., "Community's," "becuase," and "recieving").

Capitalization: There are no errors with capitalization.

**Punctuation**: There are relatively many missing commas throughout the response. For example, there are missing commas in compound sentences (e.g., *"They were promised a chance at being paid more and in the process they would help the community and country"*), missing commas after introductory elements (*"In the small town of Dove Creek Colorado farmers have started..."*), and a missing comma with an interrupter (*"Farmers however, ..."*). There is also an error with hyphen use, which is a new-to-grade skill (*"strong willed"*), and a failure to use quotation marks to indicate a source title (Biofuel from Sunflower).



Conventions • Sample 1-Point

#### STUDENT RESPONSE

Sunflowers are a far overlooked flower. Not only are they lovely to look at and can brighten one's day, but they have many uses as well. One of which that could be an anwer to many issues of today's need for new sources of biofuel and alternative engergy than oil and gasoline. These wonderful yellow flowers can be used to create the biofuel we need to sustain our society's better and economically more efficient.

From an article of the U.S. Departnment of Agriculture it was stated that already in law today, "it is required that a minimum of 1% biodiesel by volume be blended into diesel engine fuels." In other words currently diesel fuel is only used for 1% of all of it that is produced. So why not use much more of it that can be produced efficiently and for a cheap price? Sunflowers seem to be a likely answer to this question. It's potential as a bio-source for ethanol should be the new focus for all. With proper research and thorough development this can be done. Already experts in Brazil are powering boats and other contraptions with this fuel from sunflower seeds.

For farmers as well this new idea of fuel usage from the sunflower seeds is becoming more and more prevalent. In an artcile from NPR recently it was explained how farmers in Dove Creek are using this new idea as a drive for more income. They are hoping to grow sunflowers to produce this fuel to power all kinds of contraptions and cars, even their tractors. However the present time isn't helping them because of the lack on attempting to study the sunflower oil. They need proof first to help them in creating this opportunity for new income. When this is done economically countries can use this new fuel efficiently and better provide for their people and families.

The use of the sunflower is continuing to be overlooked, it can be used well if we study and take the time to bring for new biofuel. We must unite communities and bring this great opportunity for alternate fuel for all to increase the welfare and future of world economics.



### **SCORE POINT 1**

This response demonstrates a partial command of grade 11 conventions.

**Sentence Structure**: The final paragraph contains a run-on sentence (comma-splice: "The use of the sunflower is continuing to be overlooked, it can be used well if we study and take the time to bring for new biofuel"). In addition, sentences such as "One of which that could be an anwer to many issues of today's need for new sources of biofuel and alternative engergy than oil and gasoline" and "These wonderful yellow flowers can be used to create the biofuel we need to sustain our society's better and economically more efficient" lack parallel structure, a new-to-grade skill, and cause confusion.

**Grammar Usage**: There is some unnecessary use of the passive voice (e.g., "In an artcile from NPR recently it was explained..."). There are some errors forming comparatives/ superlatives ("we need to sustain our society's better and economically more efficient"), a below-grade level skill. There is a lack of agreement between pronoun and antecedent in paragraph two ("Sunflowers..." "It's...").

**Spelling**: There are many spelling errors (e.g., *"efficently," "develpment," "artcile," "anwer," "engergy"*).

Capitalization: There are no errors in capitalization.

**Punctuation**: There are errors with missing commas after introductory elements (e.g., "When this is done economically countries can use..."). The two words "*far overlooked*" should be hyphenated, a new-to-grade skill.



Conventions • Sample 2-Point

#### STUDENT RESPONSE

Cultivating sunflower seeds has become a huge discussion around the world for many reasons. Sunflower seeds have proven to be useful in many different ways, all the way from cooking, to aesthetic reasons. Sunflower seeds can be used to create biofuel, but also may have economic implications that could be a benefit to our society. Through the past years, people have grown to see sunflowers as a plus to the community and have taken strides to grow and cultivate them for many different purposes.

Sunflower seeds can be cultivated for many reasons, one of them being biofuel. Because of the recent industrial revolution, fuel has become a necessity to society. Fuel is a high price to pay for many people who struggle day to day and also causes major pollution to the atmosphere. Many people have searched for cheaper, more efficient, and less economically damaging ways to run their cars and get to work. People have found ways in which sunflower seeds can be used to create biofuel. Planting sunflower seeds is a win-win situation because they are beautiful to look at, but also can be cultivated to create biofuel. One way that they can make biofuel is by planting the sunflower seeds, harvesting them, taking the seeds, pressing them for their oil to create biodiesel and biofuel that could help run hybrid cars, so that people wouldn't have to use as much fuel (Source #2). The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil) and they can also be used to help run cars (which saves people money and is better environmentally) (Sourve #1). There are many ways sunflower seeds can be formed into biofuel, but there are also many economic implications of this process too.

Turning sunflower seeds into biofuel can be good or bad depending on the way you look at. It is good because it doesn't cause as much pollution to the atmosphere and is reusable, but could also have some economical problems. Although it will, in the end, be cheaper than fuel, the process for creating that much biofuel from the seeds would call for many workers and employees. More employees and workers means more money needed to pay for all that work and energy put in to not only growing and harvesting the sunflowers and their seeds, but also pressing them and extracting the oil from them (Source #2). Keeping the sunflowers well and growing is a tedious and arduous task and environmental factors could play a major part in how many sunflowers actually live to see harvest day. If for some reason there is a fire, it could burn away all the sunflowers, so that all the hard work being put into keeping them intact goes to waste, and ends up costing more than expected. Or if there is too much rain, it could drown all the sunflowers and cause them die, also wasting money. The economic implications for using sunflower seeds for biofuel is a risk that must be taken if society is ready to give up their hunger for fuel, and move on to a more environmentally productive source. Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating with the harvest.

Sunflower seeds could be made into biofuel, but only with much help from everyone, including the environment. Therefore, it could either be a benefit to the economy, or be a disaster, depending on how everything works out. Starting this project as another fuel source could be a major boom, or a major bust, but it is a risk that is needed to be taken if society is ready to take a step forward to creating a greener and more efficient earth.



### **SCORE POINT 2**

This response demonstrates an overall adequate command of grade 11 conventions.

**Sentence Structure**: There are a few stylistically awkward sentences (e.g., "Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating with the harvest") and some problems with parallel structure (e.g., "Sunflower seeds can be used to create biofuel, but also may have economic implications that could be a benefit to our society"). There are, however, no run-on or sentence fragment errors.

**Grammar Usage**: There are errors with verbs, including an error with subject/verb agreement (e.g., *"The oil from seeds are very useful because they can be used for cooking..."*) and verb mood (e.g., *"it could burn away all the sunflowers, so that all the hard work being put into keeping them intact goes to waste, and ends up..."*). At the end of paragraph three, there is an error with frequently confused word *"its"* instead of it's.

Spelling: There is a single spelling error ("Sourve").

Capitalization: There are no errors in capitalization.

**Punctuation**: There is a pattern of errors with unnecessary commas with compound elements (e.g., "Sunflower seeds can be used to create biofuel, but also may have...;" "Planting sunflower seeds is a win-win situation because they are beautiful to look at, but also can be cultivated to create biofuel.") and missing commas in compound sentences ("The oil from seeds are very useful because they can be used for cooking (which is cheaper and healthier than olive oil) and they can also be used..."). The use of a semi-colon (possibly for clarity) and the dubious choice of the relative adjectives (which/that) cause mild confusion, but the uses are not clearly wrong (e.g., "Biofuel could help by costing less because its reusable, which would save a community tons of money, which they could use on other projects; or it could run a society into debt if the environmental factors are not cooperating with the harvest").



Conventions • Sample 1-Point

#### STUDENT RESPONSE

Everything is connected into a whole. One small factor can greatly change the community and our lifestyles. One small change can lead to a revolutionary discovery. Believe it or not, even suprisingly unrelated things such as sunflowers and the biofuel industry are greatly connected and beneficial when combined. As problem solvers, we have turn to new alternatives and hybrids to help save our planet and corporations. Sunflower seeds are a better alternative to use to create biofuels because of their oil rich content, theyre inexpensive to cultivate, and they work efficiently as replacements for gasoline oil.

Sunflower crops became extremely popular in the Philipines because they could easily grow on Philipine lands and because they're a great source of natural oils. During the 70's the Philipines enjoyed their surpluses of Sunflowers as part of daily consumption. whether roasting their delcious seeds white or to use them in replacement of other cooking oils, Sunflower oil has served them as a healthy alternative. Sunflower seeds are very healthy, "containing 36-342% oil and 38% protein meal." It is easy to see why the Philipines switched to this source. Recently, Central Luzon State University has decided to "revive its sunflower production not for the edible oil but for biofuel." Researching their nutrious content with high amoutns of oil and protein, the university has decided that it sunflowers can be used to produce biofuel (Sunflowers in the Philipines). Since they are known for their oil content they might as well be used for oil purposes. Since theyre edible, they should not do harm to the enviorment or to people like other fuel resources. In fact, switching to Sunflower oil will actually benefit the Earth by lowering pollution which is caused by the current fuel used for automobiles. If ships were to utilize this oil instead, oil leaks will not harm animals as much. Overall the sunflower can provide great things as long as we use its properties. They're also renewable meaning we could reuse it and they could be used for mutiple reasons.

Sunflowers are not expensive to grow. They can be cultivated in community gardens like the ones produced down 5th and 6th stree of downton Phoenix.( Sea of Sunflowers Becomes Biodiesel) They're a cheaper alternative compared to mining for oil which takes electricity and power. Cultivating Sunflowers is as easy as planting other vegetations, plants, and fruits. In fact it only takes 105 days to grow.(Sunflowers in the philipines). According to Rita T. Dela Cruz, sunflowers are recognized as one of the " most costeffective and environment-friendly energy sources to produce biofuels." They do not cause harm to the environment, in fact it will benefit our atmosphere and decrease global warming caused greatly by the use of oil dependent cars. to convert seeds to usable oil, the facility grinds the wast rpoducts and presses the seeeds into small pellets which a fed to a gasifier chamber. this process is alot faster and cheaper for oil production industry.

why not use something beneficial to our society rather than sticking to something is continously harming our earth? Sunflower oil is the solution to our global warming problems caused by gas dependent cars. Sunflower seeds will help even more than the inventions of hybrid or electric cars. Sunflowers will never be extinct if we continously cultivate them so theyre a reliable source.



### **SCORE POINT 1**

This response demonstrates a partial command of grade 11 conventions.

**Sentence Structure**: There is a run-on sentence (one in which the new-to-grade skill semicolon might have been employed) in the third paragraph: *"They do not cause harm to the enviorment, in fact it will benefit our atmosphere and decrease global warming caused greatly by the use of oil dependent cars."* 

**Grammar Usage**: There are errors with verbs including with verb tense (e.g., *"we have turn [turned] to new alternatives and hybrids"*), and switches with verb mood (*"If ships were to utilize this oil instead, oil leaks will [would] not harm animals as much"*). There are occasional errors with unclear/misplaced modifiers (e.g., *"Researching their nutrious content with high amoutns of oil and protein, the university has decided that it sunflowers …"*) and unclear and/or agreement errors with pronouns (*"Overall the sunflower can provide great things as long as we use its properties. They're also renewable meaning we could reuse it"*). There are errors with relative adjectives with (and the correct use of a comma with) which/that: *"…benefit the Earth by lowering pollution which [that] is caused by the current fuel used for automobiles"* and *"…the facility grinds the wast rpoducts and presses the seeeds into small* pellets [should have a comma after pellets] *which a[re] fed to a gasifier chamber."* 

**Spelling**: There are many spelling errors (e.g., "suprisingly,""Philipines," "nutrious," "enviorment," "downton," "mutiple," "wast," "rpoducts," "alot," "continously," and "delcious").

**Capitalization**: There are a few errors in capitalization at the beginning of sentences (e.g., *"whether roasting their delcious seeds..."* and *"why not use something beneficial to our society ..."* and *"to convert seeds to useable oil..."* and *"this process is alot faster and cheaper..."*). Capital letters are also randomly and inaccurately used with sunflower and sunflower oil.

**Punctuation**: There are missing commas after introductory elements (e.g., "During the 70's the Philipines enjoyed their surpluses of Sunflowers," "Since they are known for their oil content they might as well be used for oil purposes," and "Overall the sunflower can provide great things as long as we use its properties."). There are missing apostrophes in the word "theyre" at three different times within the response.



Conventions • Sample 2-Point

#### STUDENT RESPONSE

There is a lot of research and experimentation happening across the country currently as scientists try to determine reliable sources of energy that can be produced from organic matter. Sunflowers are emerging as one of most promising agricultural crops we have studied so far. They are being cultivated around the world in order to try and provide a solution for our over dependence on nonrenewable fuels. Sunflowers are a cost effective and environmentally friendly source of energy that we can harness to create biofuels. This easily harvested plant has great potential to help us cut back on other energy sources that we are using up too quickly, boost our economy while doing so, and help the environment.

Sunflowers can produce a large amount of biodiesel that can be used to power various things. We can draw enough energy from them to power a significant amount of a facility or product which would normally use up a lot of resources that cannot be renewed. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" the author, Adam Burke, writes about a facility in Dove Creek, Colorado where they are growing sunflowers, as well as using them to power their plant that creates food-grade sunflower oil. The text says "The system will eventually produce a third of the electricity and all of the heat needed to run the plant." The power provided from sunflowers is enough to have a major effect on decreasing the amount of harmful resources we use to run our factories. One third of the electricity and all of the heat of almost every facility in America would save us an immense quantity of nonrenewable sources. The fuel that we can create from sunflowers can also be used to power sources of transportation. In Source #1, "Biofuel from Sunflower: A Bright Opportunity for the Sun-loving Bloom." by Rita T. dela Cruz the article states "an Italian farming association is working on biofuels produced from sunflowers and sugar beets. Its sunflower oil-powered boat premiered at the recent Kyoto Protocol conference in Montreal. It sounded a bit off-beat, but the boat ran fine." If we were able to incorporate this fuel into almost all modes of transportation the effect it would have on our economy would be tremendous. As well as saving us plenty of money having vechicles powered by biofuels would also help us cut down on our usage of fossil fuels, which is one of the main nonrenewable energy sources that we are depending on much too heavily.

The energy sunflowers could provide us is very easily accessible. First of all, along with being researched by scientists, the energy that sunflowers can provide is also being tested by volunteers and high school students, proving that it is not an intricate source of energy to access and incoporate into our products and sources of production. In Source #2, "Sea of Sunflowers Becomes Biodiesel" the author writes about how near Phoenix a project has started up called Valley of the Sunflowers Project where volunteers have planted sunflower seeds and are now tending to the flowers so that they can be harvested. Braden Kay, the Sunflowers Project Manager says "What we'll do is take these seeds, press these seeds for oil, and then the bioscience class will make these seeds into biodiesel," Then the article continues "They'll then use the biodiesel to power a solar powered hybrid car they're creating in class". If volunteers and high school students can extract biodiesel from these flowers and use it to power a car then professionals and scientists certainly can too. Creating biodiesel from sunflower pieces is also a relativily uncomplicated process. This would make it easy for us to produce biofuels in large amounts. In Source #3, "Sunflower Power? An Entrepreneur's First Steps" by Adam Burke the author describes the simple way that a facility in Dove Creek, Colorado uses sunflower waste material to power their business. "The facility's main green innovation is the way that waste products-in this case sunflower hulls and pieces of plant material- are transformed into fuel. Machines grind up this biomass and press it into little fuel pellets, which look like rabbit food. The pellets are then fed into a special gasifer



chamber." The procedure of converting these leftover sunflower pieces into usable energy is not complex and the implications of this process would have great benefits as we would save a lot of money and it would help make our nonrenewable resources last us longer.

Growing sunflowers also has many other environmental benefits. Besides the biofuel that they can provide there has also been research done showing how they can help with issues like pollution. In Source #4, "Shrinking Violets They Aren't", by Michael Tortorella the author writes about a community garden in Brooklyn that has planted a perimeter of sunflowers around their lot. Deborah Greig, a coordinator at the community garden said "The sturdy sunflower does not shrink from a little hard labor", then she added "I think they do some catching of the trash that blows in." The way that these sunflowers could protect other more vulnerable plants from damaging trash could be very helpful to us as litter oftens blows into plants and affects how they grow. Sunflowers can also do important things like helping to keep the soil cleaner. Later in the Source #4 the author writes "growers are experimenting with sunflowers in a soil treatment process called phytoremediation. In field tests last summer, the plant's deep taproots seemed to pull heavy metal contaminants like mercury and lead from the garden's polluted soil." Growing sunflowers in areas that are polluted could help draw out some of the harmful things in the ground. This could make these areas of land healthy enough that we could grow other plants there again, and having more land to grow on could help improve our economy.

Sunflowers are capable of providing us with a dependable source of natural energy through biofuels. They are currently one of the biggest hopes to help solve our problem with overdependance on nonrenewable energy sources that also harm our environment. Biofuels can easily be drawn from sunflowers and they provide large quantities of fuel that can be used for various things. Along with that planting them also has many other positive affects on the environment.



### **SCORE POINT 2**

Despite some obvious errors in punctuation, considering the length and complexity of the writing, the response demonstrates overall control of most conventions.

**Sentence Structure**: Although there are no sentence structure errors per se, some longer sentences, especially those lacking correct punctuation, sometimes lower reading ease.

**Grammar Usage**: The only grammar usage errors are with frequently confused words *"its"* for it's and *"affect"* for effect.

**Spelling**: There are several spelling errors: *"relativily"* mid-essay and *"overdependance"* and *"enviroment"* in the final paragraph.

Capitalization: There are no errors with capital letters.

**Punctuation**: There is a conspicuous pattern of punctuation errors, particularly with commas: There are many missing commas after introductory elements (one example: "As well as saving us plenty of money having vehicles powered..."). There are also missing or incorrectly used commas with sources/quotations (e.g., "...the Sunflower Project Manager says 'What we'll do is..."). Other less prevalent errors include the occasional use of a period instead of a comma or vice versa (e.g., "...for the Sun-loving Bloom." by Rita T. dela Cruz..." and "'...will make these seeds into biodiesel,' Then the article continues..."). In some places, punctuation marks are incorrectly placed outside of quotation marks (e.g., "'...they're creating in class'."). Although these errors are prevalent and, in some cases, distracting, they represent only one single type of error. The term "cost effective" should be hyphenated since it is being used as an adjective.



Conventions • Sample 2-Point

#### STUDENT RESPONSE

As innovations of this day and age continue to delve into the once thought impossible category of accomplishments, people are in constant wonder at what we, as a human race, will discover next. Though man has taken insurmountable strides as far as easing lives and bettering conditions for human beings throughout the world, some of these discoveries have opened a door to environmental damage and codependency on resources that will one day run out. One of these resources, among several others, is gas and diesel used for machinery, vehicles, and various other everyday amenities. In America alone at least one household owns a vehicle of some kind, not to mention the plethora of farms and crop plantations that rely heavily on large machinery to harvest and tend to its agriculture and varying large city transportation systems and cars, with the exception of hybrid vehicles, that use hundreds of gallons of fuel a day. This is only to brush the surface of the reliance our country, our world, has placed on a resource that is not guaranteed forever. The question now is what will replace fuel once it is gone, and how can the human race do everything possible to make sure this new alternative does not destroy the delicate balance in which the environment, and the life within it, hangs. In the pursuit of answers to this question, the Bio-fuel Acts and Department of Agriculture have sequestered a source worthy of consideration for a bio-fuel: sunflowers (Source #1).

One may ask, "how is a flower going to fuel our cars and airplanes?" This can be answered with one word, innovation. Various research institutions have been honing in on finding and studying cost effective and "green" energy sources, generally produced from agricultural crops and organic matter, to produce the next effective bio-fuel (Source #1). Sunflowers and the oil from their seeds have a very likely potential to be a bio-source for substances like ethanol (Source #1). Several agriculturalists are beginning to implement sunflower fields into their farms as a product of higher income and in the hopes that they can contribute their share to renewable energy (Source #3). The process in which sunflowers could be used as a bio-fuel is rather simple. In short, bio-diesel plants would be built that would have the ability to harvest oil from the sunflower seeds and convert that oil into bio-diesel.

Besides the fact that sunflowers would be renewable, they are in the running for the next bio-fuel for their eco-friendliness as well. The waste products of the sunflower and sunflower seeds, sunflower hulls and small leftover plant material, are the very elements that could be transformed into a useful fuel by "machines that would grind up this biomass and press it into little fuel pellets and the pellets would then be fed into a special gasifier chamber," (Source #3). With every ingredient in this renewable recipe being natural, emissions given off by cars when running on this bio-fuel would not damage the atmosphere and destroy the o-zone that protects life on earth from harmful sun rays. With its power providing capabilities, sunflowers could also supply its very own conversion plants with up to one third the power it needs to make oil harbored into fuel (Source #3). Not only this, but if sunflowers were to be the next chapter in human innovation, much needed jobs would become available to people across the globe. In recent years it has been evident that unemployment rates have been rising at an alarming rate. Solutions and job opportunities have been at the forefront of important discussion in America alone for several years now, and it is time to take action.

Creating fuel from sunflowers would be the equivalent of hitting two birds with one stone, per say. Not only would the world be gaining an efficient and affordable alternative to diesel and gas today, as well as an environmental-friendly bio-diesel, but it would also reap the benefits of having hundreds if not thousands of optimal job opportunities. As fast as society is moving in the twenty-first century, it is time



to take the next step in protecting the environment in which all life known is sustained and creating a renewable energy source as soon as possible to relieve the dependency the human species has acquired for fuel. In all, the facts speak for themselves, indicating a time of change is needed and that sunflowers just may be the catalyst to do the job.

#### ANNOTATION

### **SCORE POINT 2**

This response demonstrates an adequate command of grade 11 conventions.

**Sentence Structure**: There are a couple of problematic sentences in this response. For example, the sentence *"In America alone at least one household owns a vehicle of some kind, not to mention the plethora of farms and crop plantations that rely heavily on large machinery to harvest and tend to its agriculture and varying large city transportation systems and cars, with the exception of hybrid vehicles, that use hundreds of gallons of fuel a day." is not grammatically a run-on sentence but could be more effectively constructed. Similarly, the sentence <i>"As fast as society is moving in the twenty-first century, it is time to take the next step in protecting the environment in which all life known is sustained and creating a renewable energy source as soon as possible to relieve the dependency the human species has acquired for fuel." is awkward and challenging to understand. There is also an occasional lack of parallelism (e.g., <i>"Several agriculturalists are beginning to implement sunflower fields into their farms as a product of higher income and in the hopes that..."*). Still other sentences, however, demonstrate skillful construction (e.g., *"This is only to brush the surface of the reliance our country, our world, has placed on a resource that is not guaranteed forever"*).

**Grammar Usage**: There is an error with a plural noun (*"important discussion[s] in America"*) and the incorrect use of the phrase *"per say,"* which should be per se.

Spelling: There are no spelling errors.

Capitalization: There is a capitalization error in the first sentence of the second paragraph.

**Punctuation**: There are several errors in punctuation including missing commas (e.g., "...but it would also reap the benefits of having hundreds if not thousands of optimal job opportunities"), and there should be a hyphen in the phrase "power providing."