

2023

AP[®]



AP[®] English Language and Composition

Sample Student Responses and Scoring Commentary Set 2

Inside:

Free-Response Question 1

- Scoring Guidelines**
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Synthesis Essay**6 points**

Vertical farms are indoor agricultural facilities in which plants are grown, often in a hydroponic (soilless) environment, on tall stacks of shelves. Plants are given water, nutrients, and light mostly through automated processes. Advocates say that vertical farms are key to providing food for the future, yielding high-quality produce while making efficient use of land and water. Critics warn about the energy consumption associated with vertical farms' automated processes as well as problems related to cost and nutritional value.

Carefully read the following six sources, including the introductory information for each source. Write an essay that synthesizes material from at least three of the sources and develops your position on the value, if any, of vertical farms to the future of agriculture.

Source A (Severson article)

Source B (Ling and Altland interview)

Source C (table from Kozai and Niu)

Source D (Foley article)

Source E (Benke and Tomkins article)

Source F (graphic from Despommier)

In your response you should do the following:

- Respond to the prompt with a thesis that presents a defensible position.
- Select and use evidence from at least three of the provided sources to support your line of reasoning. Indicate clearly the sources used through direct quotation, paraphrase, or summary. Sources may be cited as Source A, Source B, etc., or by using the description in parentheses.
- Explain how the evidence supports your line of reasoning.
- Use appropriate grammar and punctuation in communicating your argument.

Reporting Category	Scoring Criteria	
Row A Thesis (0–1 points)	0 points For any of the following: <ul style="list-style-type: none"> There is no defensible thesis. The intended thesis only restates the prompt. The intended thesis provides a summary of the issue with no apparent or coherent claim. There is a thesis, but it does not respond to the prompt. 	1 point Responds to the prompt with a thesis that presents a defensible position.
Decision Rules and Scoring Notes		
Responses that do not earn this point: <ul style="list-style-type: none"> Only restate the prompt. Do not take a position, or the position is vague or must be inferred. Equivocate or summarize others’ arguments but not the student’s (e.g., some people say it’s good, some people say it’s bad). State an obvious fact rather than making a claim that requires a defense. 		Responses that earn this point: <ul style="list-style-type: none"> Respond to the prompt by developing a position on the value, if any, of vertical farms to the future of agriculture, rather than restating or rephrasing the prompt. Clearly take a position rather than just stating there are pros/cons.
Examples that do not earn this point: Restate the prompt <ul style="list-style-type: none"> <i>“Proponents of vertical farms argue that they are the key to providing food in the future, while critics warn about the cost and energy consumption of vertical farms.”</i> Address the topic of the prompt but do not take a position <ul style="list-style-type: none"> <i>“Vertical farms, or indoor farms where food is grown in tall towers, have been touted as a way to address potential food shortages in our growing global population.”</i> Address the topic of the prompt but state an obvious fact as a claim <ul style="list-style-type: none"> <i>“If the world’s population continues to grow at its current rate, we will eventually run out of arable land to grow enough food for everyone.”</i> 		Examples that earn this point: Present a defensible position that responds to the prompt <ul style="list-style-type: none"> <i>“With the amount of farmland diminishing across the globe, vertical farms are the future of agriculture.”</i> <i>“Although vertical farms may seem like a viable solution for providing food for our growing population, important factors such as cost and energy consumption prevent it from being a fully sustainable model of agriculture.”</i> <i>“Because vertical farming still has some drawbacks, it should not replace traditional agricultural methods. However, vertical farming can be a good supplemental or alternative method of farming, especially in urban areas where farmland is scarce.”</i>
Additional Notes: <ul style="list-style-type: none"> The thesis may be more than one sentence, provided the sentences are in close proximity. The thesis may be anywhere within the response. For a thesis to be defensible, the sources must include at least minimal evidence that <i>could</i> be used to support that thesis; however, the student need not cite that evidence to earn the thesis point. The thesis <i>may</i> establish a line of reasoning that structures the essay, but it needn’t do so to earn the thesis point. A thesis that meets the criteria can be awarded the point whether or not the rest of the response successfully supports that line of reasoning. 		

Reporting Category	Scoring Criteria				
Row B Evidence AND Commentary (0–4 points)	<p>0 points</p> <p>Simply restates thesis (if present), repeats provided information, or references fewer than two of the provided sources.</p>	<p>1 point</p> <p>EVIDENCE: Provides evidence from or references at least two of the provided sources.</p> <p>AND</p> <p>COMMENTARY: Summarizes the evidence but does not explain how the evidence supports the student’s argument.</p>	<p>2 points</p> <p>EVIDENCE: Provides evidence from or references at least three of the provided sources.</p> <p>AND</p> <p>COMMENTARY: Explains how some of the evidence relates to the student’s argument, but no line of reasoning is established, or the line of reasoning is faulty.</p>	<p>3 points</p> <p>EVIDENCE: Provides specific evidence from at least three of the provided sources to support all claims in a line of reasoning.</p> <p>AND</p> <p>COMMENTARY: Explains how some of the evidence supports a line of reasoning.</p>	<p>4 points</p> <p>EVIDENCE: Provides specific evidence from at least three of the provided sources to support all claims in a line of reasoning.</p> <p>AND</p> <p>COMMENTARY: Consistently explains how the evidence supports a line of reasoning.</p>
Decision Rules and Scoring Notes					
	<p>Typical responses that earn 0 points:</p> <ul style="list-style-type: none"> • Are incoherent or do not address the prompt. • May be just opinion with no textual references or references that are irrelevant. 	<p>Typical responses that earn 1 point:</p> <ul style="list-style-type: none"> • Tend to focus on summary or description of sources rather than specific details. 	<p>Typical responses that earn 2 points:</p> <ul style="list-style-type: none"> • Consist of a mix of specific evidence and broad generalities. • May contain some simplistic, inaccurate, or repetitive explanations that don’t strengthen the argument. • May make one point well but either do not make multiple supporting claims or do not adequately support more than one claim. • Do not explain the connections or progression between the student’s claims, so a line of reasoning is not clearly established. 	<p>Typical responses that earn 3 points:</p> <ul style="list-style-type: none"> • Uniformly offer evidence to support claims. • Focus on the importance of specific words and details from the sources to build an argument. • Organize an argument as a line of reasoning composed of multiple supporting claims. • Commentary may fail to integrate some evidence or fail to support a key claim. 	<p>Typical responses that earn 4 points:</p> <ul style="list-style-type: none"> • Uniformly offer evidence to support claims. • Focus on the importance of specific words and details from the sources to build an argument. • Organize and support an argument as a line of reasoning composed of multiple supporting claims, each with adequate evidence that is clearly explained.
<p>Additional Notes:</p> <ul style="list-style-type: none"> • Writing that suffers from grammatical and/or mechanical errors that interfere with communication cannot earn the fourth point in this row. 					

Reporting Category	Scoring Criteria	
Row C Sophistication (0–1 points)	0 points Does not meet the criteria for one point.	1 point Demonstrates sophistication of thought and/or a complex understanding of the rhetorical situation.
	Decision Rules and Scoring Notes	
	Responses that do not earn this point: <ul style="list-style-type: none"> • Attempt to contextualize their argument, but such attempts consist predominantly of sweeping generalizations (“<i>In a world where . . .</i>” OR “<i>Since the beginning of time . . .</i>”). • Only hint at or suggest other arguments (“<i>While some may argue that . . .</i>” OR “<i>Some people say . . .</i>”). • Use complicated or complex sentences or language that is ineffective because it does not enhance the argument. 	Responses that earn this point may demonstrate sophistication of thought and/or a complex understanding of the rhetorical situation by doing any of the following: <ol style="list-style-type: none"> 1. Crafting a nuanced argument by consistently identifying and exploring complexities or tensions across the sources. 2. Articulating the implications or limitations of an argument (either the student’s argument or arguments conveyed in the sources) by situating it within a broader context. 3. Making effective rhetorical choices that consistently strengthen the force and impact of the student’s argument throughout the response. 4. Employing a style that is consistently vivid and persuasive.
Additional Notes: <ul style="list-style-type: none"> • This point should be awarded only if the sophistication of thought or complex understanding is part of the student’s argument, not merely a phrase or reference. 		

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

While many would like to believe that vertical farms are the future of produce due to their adaptability and modernity, ^{but} in reality these systems are overvalued and only necessary for very niche applications. Vertical farms are greenhouses where produce is grown stacked in rows without the use ~~for~~ of soil and with complex technology that emulates the perfect growing conditions for said product.

This sounds like a great idea in practice, fresh produce year ~~round~~ round grown efficiently, ^{but} the reality is very different. Vertical farms are expensive - both in initial and operating costs. Source C reveals that vertical farms have extremely high initial investment per unit land area compared to fields, greenhouses, and hydroponic systems and Source D gives us the ~~the~~ exact cost of over \$20 thousand dollars per container from industry leader Freight Farms. With an initial investment so large it would easily be more profitable and efficient to simply buy land to cultivate. These costs alone make it unreasonable to implement in low income areas where access to ~~the~~ local produce is needed the most. Until vertical farms can decrease costs to build and operate they are simply out of reach for most ~~communities~~ communities. Operating cost will most likely struggle to lower. Because there is no soil or sunlight, a large amount of power ~~is~~ is required to support these crops ~~at~~ which is strange because the sun is not a competitive resource or non-renewable. These costs are simply unnecessary and create problem other methods have solutions to.

The vertical farm has seen initial success despite ~~for~~ its disadvantages when compared to other systems because of its gimmicky

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marketing. Brand owners have marketed vertical farms as ~~psuedo~~ pseudo-eco friendly and high tech food of the future. Source A, a New York Times article marketing vertical farm produce, goes into depth on the famous people investing in vertical farming, dropping names like Justin Timberlake and Natalie Portman to build hype. What ~~are~~ do RnB singers and actors know about the efficacy of modern farming? Little to nothing. That didn't stop the Times from including celebrity testimonials. The food produced ~~from green the farms~~ using vertical farming is marketed to the upper class (people who would ~~not~~ consider the ~~opinion~~ opinion of Natalie Portman in their grocery shopping) because they are the only ones who can afford it. Source D ~~also~~ again provides numbers, showing products like the lettuce from Green Line Growers costs more than double the market price of organic lettuce. Vertical farms should not be taken seriously as the future of agriculture, especially when it treats itself as the new fresh food fad to woo the wealthy. We can support and modernize agriculture with better distribution of resources to low income communities and by working to eliminate food waste which could ~~be~~ also be given to people in need. We already have the production and resources to support our ~~pop~~ population as long as we allocate those resources effectively.

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Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

Vertical farms are indoor agricultural facilities that grow plants without soil. This type of farming is being employed by more and more corporations. I agree that vertical farms are key to providing ~~food~~ food for the future since it is very convenient for farmers to grow and very friendly to the planet since there would not be enough arable land for the future generations.

Vertical farms can be built everywhere. They can be built in "deserts, high-population urban areas, and other places that traditional open-field farming is not practical" (source B). Imagine living in New York, one of the most crowded cities in the world. You can only get vegetables from small shops that you don't ~~see~~ even know where your food came from. If we build vertical farms in abandoned parking lots, you can not only have access to organic, fresh vegetables, but also contribute to re-using land to save the planet. It's the same thing for deserts, where typically only meat is available, and a vertical farm ~~that~~ would help the people to stay healthy ~~and~~ have balanced ~~nutrient~~ nutrients for each meal. Moreover, the plants grown in vertical farms taste very similarly to the plants grown on soil. Mr. Colicchio, a chef who uses hundreds of pounds of vegetables a day, ~~is~~ said that " [hydroponic food] just blew [him] away " for its juiciness (Source A). If plants grown in a more eco-friendly environment tastes the same as traditionally-grown plants, why don't we employ vertical farming to contribute to a ~~not more~~ world with better ~~environment~~ environment? Vertical farms should be used because it is more convenient and mimics the original plants very well.

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Question 1 Question 2 Question 3



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Vertical farms are also helpful in limited conditions. Many of traditional farmingS are limited by "geographic region and seasonal changes", but vertical farms are available year-round (source B). If we have daily vegetables, such as lettuce and spinach, available in grocery stores everyday, we would spend a lot of money on them than the less ~~use~~ usually vegetables. Thus, the farms can have more profit and the consumers can have more fresh vegetables, ~~with~~ which is good for both of us. Furthermore, as the ~~the~~ world's population continues to grow, more and more land would be necessary to grow plants and feed the people. That means there ~~use~~ would be less and less arable space and food might one day be luxury for ~~3~~ some people. That's when vertical farms are useful again. In source F, a projected world population of 9.5 billion needs the size of ~~the~~ South Africa and Brazil combined to ~~be~~ fed. But that's impossible. Vertical farms can solve the problem by ~~proving~~ providing more arable land to grow plants. That way, our future generation would not have to worry out getting food every day. It is very useful for the vertical farms to be used in limited conditions and for future generations.

Some might say that vertical farming is very costly. It is untrue because "shipping containers and abandoned warehouses are readily available and relatively inexpensive" (source B). If we have the materials and space ~~to~~ to build vertical farms, then it would not be an expensive style of farming anymore.

Since vertical farms are convenient and very helpful in limited conditions, we should employ it more to create an eco-friendly environment.

Page 3

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1 Question 2 Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

Vertical Farming will not only support us with year-round crops, it also do it for the future generations to come. There are many admirable qualities in our traditional ways of farming, yet vertical farms grant other valuable benefits that traditional farming does not.

In the article of "Future Food-Production Systems: Vertical Farming and Controlled-Environment", focuses on the real stability of vertical farmings. Benke, Kurt, and Bruce Tomkins state how not only will these new models increase the agricultural factories it will also make on a set of climate controlled environments. Since these vertical farms are being proposed on the soil fact that they will benefit us in the sense of most free land, and easier consumption people are challenging these areas the most. This article remarks how these future crops will fail to obtain their "natural breeding nutrients," but fail to voice how many world wide agricultural land ~~are~~ are dying from the lack of useful soil.

Page 2

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Question 1 Question 2 Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

On the following interview a plant pathologist, (Kai-Shu ling) and a research horticulturalist (James Atland), explained and expanded their viewings on this new Vertical farming. When asked a few advantage that Vertical farming offers, Kai-Shu ling states how they unlike our traditional farming ~~can~~ can be supported with year-round crops. In this interview ~~they~~ ~~these~~ these specialist add the ~~at~~ other advantages that they will ~~offer~~ acquire us with when talking about weather related obstacles. There has been many cases where years worth of farming gets removed by natural causes, such as tornados, floodings and even strong winds. Like the graph created ~~it we were to stick with our normal farming techniques~~ by the "Role of the plant factory with Artificial lighting" they show the stability focusing on the "Aerial zone" which refers to the very high possibility of safe farming no matter of the weather in that particular zone located.

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Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

IF we stick with our normal farming techniques not only will we fail to watch any advantages bloom ~~in~~ society won't develop a stronger agriculture potential. In other words, if we as a society can implement obvious economic possibilities for a better turn out relating to the agricultural zone, why not explore it?

Use a pen with black or dark blue ink only. Do NOT write your name. Do NOT write outside the box.

Question 1

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

Students responding to this question were expected to read six sources on the topic of vertical farming and then write an essay that synthesized material from at least three of the sources and developed their position on the value, if any, of vertical farms to the future of agriculture. Students were expected to respond to the prompt with a thesis that takes a defensible position; use evidence from at least three provided sources to support their line of reasoning clearly, properly citing the sources; explain how the evidence supports their line of reasoning; and use appropriate grammar and punctuation in presenting their argument.

As per the Course and Exam Description, students were expected to be able to read the prompt, understand the task, use sources provided to write paragraphs that reflect their ability to establish claims and provide evidence, and demonstrate their understanding of prose and their ability to write using cogent, meaningful discourse.

Sample: 1A

Score: 1-4-1

Thesis (0–1 points): 1

The first sentence of the response is a defensible thesis that addresses the prompt: “While many would like to believe that vertical farms are the future of produce due to thier adaptability and modernity, but in reality those systems are overvalued and only necessary for very niche applications.”

Evidence and Commentary (0–4 points): 4

The response establishes a line of reasoning to support the thesis and supports each claim with sufficient evidence. The first major claim, that “[v]ertical farms are expensive—both in initial and operating costs” (paragraph 2), is supported by evidence from sources C and D and by additional observations about the cost of power. The second claim, that the current success of vertical farming is based on “gimicky marketing” (paragraph 3) instead of genuine advantages, is supported with evidence from source A, which is used to show a supportive article relying on “celebrity testimonials.”

The response provides specific evidence from sources C, D, and A. In paragraph 2, it includes specific details from source C, the chart comparing costs of initial investment for vertical farms to “fields, greenhouses, and hydroponic systems,” tying that information to the specific cost of “over 80 thousand dollars per container” given in source D. In paragraph 3, the response incorporates specific details from source A, including the references to Justin Timberlake and Natalie Portman, along with the fact from source D that “the lettuce from Green Line Growers costs more than double the market price of organic lettuce.” Although there are no direct quotes from the sources, these references do represent specific evidence.

The commentary consistently explains all the evidence the response uses. In paragraph 2, the commentary clearly explains how high operating costs make vertical farming “unreasonable to implement in low income areas where access to local produce is needed the most” and that until

Question 1 (continued)

vertical farms can find a way to decrease their costs, they are “simply out of reach for most communities.” In paragraph 3, the explanation that the “food produced using vertical farming is marketed to the upper class ... because they are the only ones who can afford it” explains the claim and evidence about “gimicky marketing” and connects it to the line of reasoning regarding high costs established in the previous paragraph.

Sophistication (0–1 points): 1

The response articulates the limitations of an argument (in this case, the argument in Source A) by situating it in a broader context. It goes beyond a cursory examination of potential bias in a source and focuses on the broader context revealed by that bias: celebrity endorsements were not chosen randomly as a marketing ploy, but because people “who would consider the opinion of Natalie Portman in thier grocery shopping” are the exact market being targeted. By suggesting alternative methods to increase food production in an affordable way through “better distribution of resources to low income communities” and “working to eliminate food waste,” the response once again articulates a broader context of limited access to fresh, healthy food while identifying other potential solutions to the problem.

In addition, the response consistently makes effective rhetorical choices that strengthen the impact of its nuanced argument. Not only is the chosen evidence concise and accurate, but the connections within the line of reasoning are very clear. For example, paragraph 2 effectively explains the problems with high initial costs and then goes on to explain why operating costs of vertical farms will also remain much higher than those of traditional farms. Paragraph 3 keeps its focus on brand owners and marketing, creating a nuanced response to the argument presented in Source A.

Sample: 1B**Score: 1-3-0****Thesis (0–1 points): 1**

The defensible thesis is found at the end of paragraph 1: “I agree that vertical farms are key to providing food for the future since it is very convenient for farmers to grow and very friendly to the planet since there would not be enough arable land for the future generations.”

Evidence and Commentary (0–4 points): 3

The response develops a line of reasoning and provides specific evidence to support each claim in that line of reasoning. In paragraph 2, the claim that “[v]ertical farms can be built everywhere” is supported by direct quotes from Source B. Source A is used to support an anticipated objection that vertical farms built in suboptimal locations might not deliver food that is equivalent in taste. In paragraph 3, the claim that vertical farms are helpful in limited conditions is again supported by direct quotation from Source B and information from Source F.

The response does not consistently integrate the evidence, and it only explains how some of the evidence supports the line of reasoning. Paragraph 2 presents a strong explanation of the advantages of building vertical farms “everywhere” by explaining the implications for both urban dwellers and people who live in deserts. The reference to “abandoned parking lots” in New York City is geographically inaccurate, but it does not affect the underlying line of reasoning. However, in paragraph 3, the explanations are less complete: the idea that vertical farming will be profitable because it can provide “daily vegetables” is not fully developed. Paragraph 4 attempts to address the

Question 1 (continued)

argument that vertical farming is costly, but its quotation from Source B is not elaborated on with sufficient commentary to integrate it into the argument.

Sophistication (0–1 points): 0

In paragraph 4, the response attempts to address the implications of Source B but does not situate the argument within a broader context. Instead, it offers the oversimplified claim that “[i]f we have the materials and space to build vertical farms, then it would not be an expensive style of farming anymore.” The response does not explore complexities or tensions across the sources, and the rhetorical choices are not consistently effective. Although the response shows some control of language, it does not employ a style that is consistently vivid or persuasive.

Sample: 1C

Score: 1-1-0

Thesis (0–1 points): 1

Paragraph 1 as a whole is a defensible thesis: “Vertical farming will not only support us with year-round crops, it also do it for the future generations to come. There are many admirable qualities in our tradicional ways of farming, yet vertical farms grant other valuable benefits that tradicional farming does not.”

Evidence and Commentary (0–4 points): 1

The response does provide evidence in the form of direct quotes and paraphrases from three sources—E, B, and C—but summarizes or describes the evidence rather than explaining how it supports an intended argument. For example, the first sentence of paragraph 3 reads, “On the following interview a plant pathologist, (Kai-Shu ling) and an research horticulturalist (James Altland), explained and expanded their viewings on this new vertical farming.” This is a description of the source’s content rather than a claim. The rest of the paragraph continues to summarize the source rather than use it to build an argument.

Sophistication (0–1 points): 0

The response focuses on three sources in isolation rather than consistently exploring complexity or tensions across the sources. It does not articulate the implications or limitations of an argument, and its rhetorical choices are not consistently effective. The response also does not employ a style that is consistently vivid or persuasive.