

## High School Sample Assessment

#### **OVERVIEW**

CWRA+ comprises a Performance Task (PT) and a Selected-Response Question (SRQ) section. There are three types of questions in the SRQ section: Scientific and Quantitative Reasoning (SQR), Critical Reading and Evaluation (CRE), and Critique-an-Argument (CA). CWRA+ is administered online. The PT contains an open-ended prompt that requires written responses. The SRQs ask the student to choose the best response based on the Document Library provided.

CWRA+ tasks are designed to assess students' general critical-thinking and written-communication skills, regardless of their academic concentrations. These skills include scientific and quantitative reasoning, analytic reasoning and evaluation of information, problem solving, writing effectiveness, and writing mechanics. These skills are necessary, not only for success in high school and college; they are important for success in the workplace and other aspects of life outside the classroom. No prior knowledge of any particular field is necessary in order to perform well.

What is presented in the practice example is an abbreviated version of a PT and SRQs. Nevertheless, please familiarize yourself with how the assessment includes real-world scenarios and a series of documents that reflect an authentic situation.

This example is also intended to demonstrate what is expected in a high-quality response. The sample response demonstrates the student's critical-thinking and written-communication skills.

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#### **Additional Information**

The CWRA+ is an online assessment. For more information about the CWRA+, please visit cae.org/cwra.

You may also email the CWRA+ Team at clateam@cae.org.

#### INSTRUCTIONS

This is an example of a CWRA+ Performance Task (PT). In the course of this practice PT, you will prepare a written response to a hypothetical but realistic situation. The PT is made up of an introductory scenario, a question, and six documents/information sources. You will use information from the Document Library in carrying out the task.

While your personal values and experiences are important, you should base your response solely on the evidence provided in the Document Library.

#### **SCENARIO**

Tiverton is a large city located near a national forest. The city currently funds two programs for middle school students. One program, Forest Adventures, is a summer camping program. The other program, Sports & School Experience, combines academic tutoring and sports activities.

Tiverton can no longer afford to fund both programs at their current levels. At tonight's City Council meeting, the council members are going to discuss whether the city should fund only one program. You work for the city manager of Tiverton, Christine Dillingham, and she has asked you to help prepare for the meeting by reviewing the documents provided in the Document Library. Your final task will be to write a report for Ms. Dillingham that analyzes the two programs and makes a recommendation about how the city should fund the middle school programs. You have 60 minutes to complete this entire task.

#### **PROMPT**

Your task is to write a report for Ms. Dillingham that analyzes the two programs and answers the question, "If Tiverton cannot afford to fund the Forest Adventures and the Sports & School Experience programs at their current levels, what should the city do?" You could recommend funding only one program, modifying the program(s), or something else. In your report, support your recommendation with information found in the Document Library and explain why other possible recommendations are not as good.

While your personal values and experiences are important, please answer the question in the this task solely on the basis of the information provided above and in the Document Library.

#### DOCUMENT LIBRARY

**Document 1** - Youth Programs Website

Document 2 - Hospital Data Report

**Document 3** - Letter from Oliver Simpson

**Document 4** - Letter from Jerome Taylor

Document 5 - Newspaper Article

Document 6 - Email from Principal Arnold



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ABOUT PARKS

ARKS EVENTS

**PROGRAMS** 

**PERMITS** 



Along with our regular activities, the city currently offers two exciting programs for the youth of Tiverton. These programs are intended to promote our adolescents' academic and personal growth.

#### **SPORTS & SCHOOL EXPERIENCE**

For boys and girls in middle school, this program offers a variety of sports activities, and an innovative academic tutoring service, provided largely by student-athletes from local colleges. The Sports & School Experience program is offered year-round at the Tiverton Hills Recreation Center.

Sports activities included in the program are flag football, soccer, baseball, volleyball, gymnastics, and tennis. Staff is largely made up of college-aged students who provide athletic training, academic support, and an invaluable mentoring experience to program participants. All program staff members are certified in CPR and first aid. Most of the tutors are themselves varsity college athletes, which is a very big draw for students.

Student fee: \$25/year

#### FOREST ADVENTURES WILDERNESS EXPEDITION

The Forest Adventures organization has been taking individuals on wilderness expeditions since 1962. Annually, over 10,000 students across the nation gain a deeper knowledge of themselves and the world in which they live through adventure-based wilderness courses that include activities such as hiking, rock-climbing, sea kayaking, and sailing.

For several years, the city has sponsored two-week backpacking expeditions into wilderness areas adjacent to Tiverton. The curriculum emphasizes personal growth through mastering new skills, working with a diverse group of peers, and purposefully tackling obstacles, rather than avoiding them. Forest Adventures's teams of staff provide all of the equipment, wilderness expertise, and experience to guide participants through this life-changing experience.

Student fee: \$250/expedition

Financial assistance for all Tiverton programs is available to qualifying families. For more information, please call the Youth Programs office between 8:30 a.m. and 5:00 p.m., Monday through Friday.

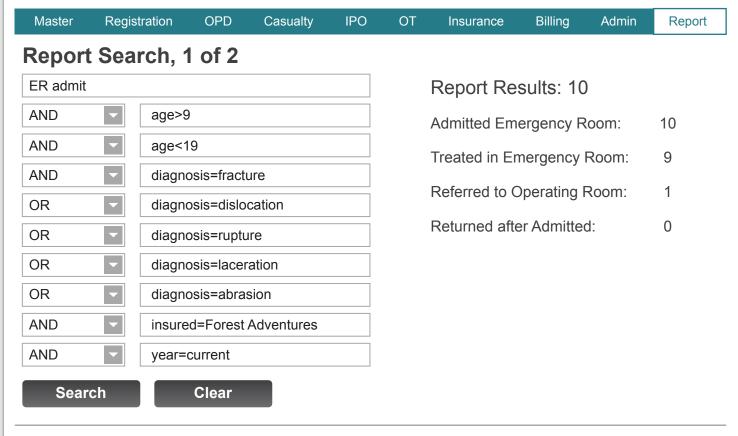








#### **Hospital Information System**



#### Report Search, 2 of 2

ER admit	
AND	age>9
AND	age<19
AND	diagnosis=fracture
OR 🔻	diagnosis=dislocation
OR 🔻	diagnosis=rupture
OR 🔻	diagnosis=laceration
OR 🔻	diagnosis=abrasion
AND	insured=Sports & School
AND	year=current
Search	Clear

#### Report Results: 46

Admitted Emergency Room:	46
Treated in Emergency Room:	24
Referred to Operating Room:	22
Returned after Admitted:	0

Tiverton Hills SPORTING GOODS

Ms. Christine Dillingham Tiverton City Manager

Dear Ms. Dillingham:

Twenty years ago, I opened Tiverton Hills Sporting Goods, the largest sporting equipment store in our city. For many years, I have supplied sports equipment to our city's young athletes at the start of each new season and have enjoyed watching Tiverton youth develop into fine young citizens. I continue to see our city's sports programs as a good investment in our future. I do not share the same feeling about the Forest Adventures program, especially considering the risk of injury in the activities they promote and all at substantially greater expense!

In all this time, I have never heard of anyone getting attacked by mountain lions, getting lost, or breaking a leg while walking across the ball fields at the recreation center. The same cannot be said about hiking in the wilderness, as we have learned from the recent incident with the Forest Adventures program where a student broke a leg while hiking.

While I'm sure there are some fine things to be said about the Forest Adventures program serving youth from low-income, inner-city families, I can say that the marvelous basketball, baseball, football, tennis, soccer, and gymnastics programs run by Tiverton's Department of Parks & Recreation have served our city's youth, including my own children, very well over the years. Furthermore, the Sports & School Experience program, which is also run by Tiverton's Department of Parks & Recreation, does a great job of motivating students to study while also providing them with an opportunity to work with coaches and athletes from the local colleges.

Maria Singleton, a customer and the parent of a Tiverton Middle School student, told me that her daughter loves the sports and the wonderful staff of college students assembled for the Sports & School Experience program. In fact, her only complaint is that she wishes the program started a little later so that her daughter could attend the After-School Program (for required tutoring) and not miss the beginning of the Sports & School Experience program.

Another customer and middle school parent, Janelle Harding, also has a son in the Sports & School Experience program. For the most part, she is a fan of the program, but, when talking to her the other day, she mentioned that the coaches and tutors keep changing and that, sometimes, the tutors leave early and the students do not receive tutoring. I told her this was most likely due to the fact that the coaches and tutors have schedules they have to maintain at their respective universities. We are both big supporters of the program and this information won't change that fact, but I still wanted to share this complaint with you.

Also, our city sports programs have a wonderful community-building effect in Tiverton Hills (e.g., parents socializing at little league baseball games or at the pancake breakfast fundraiser). Our Neighborhood Association came together to refurbish the dugouts and fields and to refinish the parks' courts, so we wouldn't have to use the middle school playground. The recreation center is truly the "center" of our community. I say we use it through the Sports & School Experience program!

Thanks again for your consideration. Keep up the good work.

Oliver Simpson

Owner, Tiverton Hills Sporting Goods



Ms. Christine Dillingham Tiverton City Manager

Dear Ms. Dillingham,

This letter is in response to your request for information on insurance premiums and the annual budget for youth programs paid for by Tiverton's Department of Parks & Recreation, including the Tiverton Hills Recreation Center.

Table 1 breaks down the components of the overall premium for various program activities insured at the center, which are currently covered under general Policy #253-15685. Per your request, I have included your estimate of program enrollment that was used to calculate the annual premium. In general, insurance rates are determined more by the seriousness of injuries than by their frequency.

Table 1. Annual Premiums for Programs Funded by Tiverton's Department of Parks and Recreation

Policy 253-15685					
Program	Policy #	Enrollment	Premium		
Sports & School	253-15685-01	200	\$10,000		
Forest Adventures	253-15685-02	35	1,400		
Mommy & Me	253-15685-03	50	500		
Gymnastics	253-15685-04	50	1,400		
Holiday Music	253-15685-05	50	250		
Science Camp	253-15685-06	50	750		
Tennis Tournament	253-15685-07	50	2,000		
League Football	253-15685-08	50	3,000		
League Baseball	253-15685-09	50	2,500		
Conversational English	253-15685-10	50	250		
Open Gym	253-15685-11	500	25,000		
Total Premium			\$47,050		

Table 2 breaks down the costs included in the annual budget for the youth programs that are funded by Tiverton's Department of Parks & Recreation. Your estimated program enrollment numbers are included and were used to calculate the net cost per student. This information reflects savings for the use of Tiverton Middle School classrooms, as well as an insurance discount from state-funded insurance credit for programs that share resources between public agencies. Included in the material costs are supplies and on-site meals, and included in other costs are transportation, off-site meals, insurance, and external program costs (e.g., Forest Adventures). The net cost is calculated by subtracting the revenues from student fees that were not waived from the total program costs. Finally, financial assistance is provided as available and according to need as determined by a departmental review.

Table 2. Annual Budget for Youth Programs Funded by Tiverton's Department of Parks and Recreation

Program	Enrollment	Student Fees	Staff Salaries	Facilities Costs	Material Costs	Other Costs	Net Costs	Net Cost /Student
Gymnastics	50	1,250	7,500	3,500	1,000	3,125	13,875	278
Mommy & Me	50	1,250	6,000	500	500	2,625	8,375	167
Open Gym	500		10,000	10,000	500	15,000	35,500	71
Forest Adventures	35	8,750	9,750		2,500	17,500	21,000	600
Science Camp	50	1,250	7,500	500	2,000	4,125	12,875	258
Sports & School Experience	200	5,000	7,500	2,500	1,000	10,000	16,000	80
Tennis Tournament	50	1,250	4,000	2,000	4,500	3,125	12,375	248
League Football	50	2,500	7,500	2,500	1,000	3,750	2,250	45
League Baseball	50	2,500	7,500	2,500	1,000	3,750	12,250	245
Conversational English	50	1,250	6,000	500	500	2,625	8,375	167
Financial Assistance							25,000	
Total							\$177,875	

Please note that the information pertains to annual rates, regardless of the period of the program activities (e.g., two-week Forest Adventure, summer sports league, year-round Sports & School program). If you have any questions, please do not hesitate to call.

Cordially,

Jerome Taylor

Jerome Taylor

Director of the Tiverton Department of Parks and Recreation

# Tiverton Times

## Wising Up in the Wilderness: Tiverton Youth Praise Forest Adventures

Chester Felding, Staff Reporter

By his own admission, Eric Hildebrandt was heading down the wrong path. "I was into a lot of things, ditching school, and hanging out with the wrong people," the 13-year-old said. He knew that what he was doing was wrong. He even knew that he didn't want to continue his adolescent spiral to nowhere, but he needed a push in the right direction, not another lecture from his parents or his guidance counselor. Instead, school personnel recommended he take a 14-day Forest Adventures course. Initially, Eric wanted nothing to do with it.

"I thought it was just going to be another camp," he said. "It wasn't what I was expecting. It was more of a learning experience." Since participating, Eric has made significant changes. "There were a lot of challenges; mostly mental," Eric said. "You're out there for like two weeks, which is a long time when you're in the woods. You start to think about how you are living your life. When I came back, I was a totally different person. Everyone was surprised."

Here's how the camp works. Seven to 10 students, none of whom previously know each other, gather for the adventure. Instructors put the students through outdoor activities, such as rafting and rock climbing. As each person learns new skills and is challenged, traits such as self-reliance, responsibility, and compassion begin to blossom.

Though certainly not 100% effective, Forest Adventures's recipe of nature and skill cultivation has reshaped even the most rigid of souls. "People sometimes want a change, but they don't know what it is," said Joanne Peterson, the lead instructor on Eric's course. "What we help them do is find out what it is. Eric's experience was much like thousands of other Forest Adventures experiences in the last four decades."

Someone unfamiliar with the process might be a bit skeptical. You go into the wilderness for two weeks, and all of a sudden you're a great human being? Peterson explained: "It's experiential education in a very powerful classroom," she said. "There's sort of an alchemy and magic that happens in the wilderness. When people come into the new environment and have new challenges, it gives them new experiences."

One misconception about Forest Adventures is that it is solely for youth with serious issues. In reality, it is for anyone who wants to give it a try. Rachel Binghamton, Tiverton Senior Class President and an A student, went only because her mom had taken a Forest Adventures course when she was young and asked her daughter to go. Though Rachel's personal and academic record were by no means troubled, she still found Forest Adventures to be an uplifting experience.

"At first, it was weird because I'm the type of person that spends all her free time texting with friends and going to the mall, and here I am going on a trip where you don't get to shower for two weeks. I thought I'd be lonely and that everybody would be really different than me. But as you get to know others, you find out you all have something in common and need each other, and want to help each other. I got to see people who did have things going wrong in their lives, girls who didn't want to try, and I saw them change. That helped me to better understand myself and other people. I changed, too. There's no other experience like this."

Dr. David Arnold, principal of Sinclair Middle School, has seen dramatic and positive effects in the students that the camp has served. "I see big changes in the inner-city youth who participate in the Forest Adventures programs. They have almost twice the retention and graduation rates as their classmates who do not participate. Participants also have greater self-confidence, greater potential to do well in school, and over the past several years, I have seen several of them become model citizens in our community."

In fact, Arnold believes that supporting these at-risk students is one of the best investments of public money. "The financial assistance the city provides makes participation in Forest Adventures possible for many families that cannot otherwise afford it. It's an investment that pays returns to all of us."

#### **David Arnold**

From: David Arnold Sent: December 12

To: Christine Dillingham

Cc:

Subject: Tiverton Middle School Annual Academic Performance Report

Ms. Dillingham,

As requested, I looked at the annual change in test scores on the middle school examinations in English and mathematics. In addition to the overall results per subject, I also looked at the results based on enrollment in selected programs: the Sports & School Experience program, the Forest Adventures Wilderness Expedition, and the After-School Program. The results are provided in the table below. As you know, the Sports & School Experience program and the Forest Adventures program are offered by the Tiverton Department of Parks and Recreation while the Tiverton School District runs the After-School Program. The After-School Program is staffed by certified teachers from the district, and we currently have as many hired as the district can afford.

# Annual percentage change in scores on the middle school examinations in English and mathematics based on enrollment in selected programs

English Scores	Changes Since Last Year
All Middle School Students (n = 533)	+ 1%
Middle School Students Who Have Enrolled In:	
Sports & School Experience (n = 102)	+ 2%
Forest Adventures (n = 27)	+ 3%
After-School Program (n = 59)	+ 11%
Mathematics Scores	
All Middle School Students (n = 533)	+ 3%
Middle School Students Who Have Enrolled In:	
Sports & School Experience (n = 102)	+ 9%
Forest Adventures Program (n = 27)	No change
After-School Program (n = 33)	+ 17%

Note: Error in estimates is ±1% on all measures.

Let me know if you need any additional information in preparation for the City Council meeting.

Sincerely,

David Arnold, Ed.D. Principal, Sinclair Middle School Tiverton City Unified School District

# ANSWER SHEET Please use the space below to answer the question from the previous page. If necessary, additional paper can be used.

#### SAMPLE RESPONSE 1

It is my opinion that the Sports & School Experience (SSE) should be disbanded and the funds from this program be distributed among the various other programs available to local students through the Department of Parks and Recreation (DPR). To begin with, there is much overlap between the sports that SSE offers and the sport programs that the DPR. offers outside of SSE. For example, both offer the following: football, baseball, tennis, and gymnastics. SSE also offers soccer and volleyball, while the DPR offers open gym. If you take a look at Document #4 in the Document Library you will see that the SSE program comprises over 1/5 of the budget for annual insurance premiums (second only to the open-gym option) – despite the fact that the Parks Department already offers the majority of these sports outside the SSE. Instead of doubling up on these four common sports, the Parks Department should simply provide a program for Soccer and Volleyball, and re-direct funds from SSE to cover whatever additional insurance costs will arise as a result of these changes.

Much of the information sent to this department during this process has been manipulated in order to paint a picture of Forest Adventures Wilderness Expedition (FA) that is simply incorrect. For example, the Hospital Data Report clearly shows that FA and SSE have very similar rates of ER admissions (FA sends around 29% of their participants to the ER, while SSE sends around 23%), and while FA's ER admissions rate is slightly higher, the seriousness of the injuries (demonstrated by the percentage of students who require surgery after admissions) is significantly lower (with 11% of SSE's participants requiring surgery compared to only 3% of FA's). Additionally, the \$40 insurance premium cost per student of the FA program compared to the \$50 cost per student for SSE, proves that even insurance companies have determined that SSE is, in fact, the more dangerous of the two programs. Oliver Simpson, who sent a letter on behalf of the SSE program, benefits greatly from this program as a provider of sports equipment—and even he mentions problems with the program in his letter of praise—therefore his letter should viewed with an understanding that he is somewhat biased in his defense of this program.

SSE claims to not only provide athletic opportunities to its students, but claims to provide academic benefits as well. The changes in grades, however, when compared to the school's own tutoring services which address the same subjects, are minimal. SSE's tutors are unreliable and inconsistently available, according to a parent (Janelle Harding) whose son is in the SSE program, whereas the school provides experienced teachers to help struggling students. On top of this fact, FA, which makes no claim of increasing test scores, has proven to raise English scores more than the tutoring programs provided through SSE, which claims to do just that. The school system should take over tutoring services for all students, since it has been proven to provide more dramatic increases in test scores than the SSE program. Once again, it is my belief that the money spent on this program, which is approximately \$16,000.00 annually, be distributed among the various other programs that have a similar, and often more significant impact on its participants.

Unlike SSE, FA offers unique opportunities that these students would not have access to otherwise. From rock-climbing to sea-kayaking, from survival skills to personal development, FA provides benefits that cannot be offered by the other programs, no matter how much funding they receive. And while the cost per participant is higher at FA for both the DPR and the participants, the money saved on the insurance premiums for SSE can open up the opportunity to a larger number of local students who are seen as at-risk for developing some problematic behaviors upon entering high school. Unlike SSE, FA cannot be replaced by simply starting a new local program.

Despite the fact that FA is a much shorter program I believe the benefits are more long-lasting and crucial to the well-being and development of our most at-risk youth. For these reasons I recommend that FA remain intact and be expanded to include more students, and the SSE program be absorbed by the other offerings of the DPR.

#### **Analysis and Problem Solving**

#### Subscore: 6

- States an explicit decision/ conclusion/ position
- Provides comprehensive support, including nearly all of the relevant and credible information, in a manner that demonstrates outstanding analysis and comprehension of the documents
- Thoroughly refutes contradictory evidence or alternative decisions/ conclusions/ positions (if applicable)

#### **Writing Effectiveness**

#### Subscore: 6

- Organizes response in a logically cohesive way that makes it very easy to follow the writer's arguments
- Provides valid and comprehensive elaboration on facts or ideas related to each argument and clearly cites sources of information

#### **Writing Mechanics**

#### Subscore: 5

- Demonstrates very good control of grammatical conventions
- Consistently writes well-constructed sentences with varied structure and length
- Uses varied and sometimes advanced vocabulary that effectively communicates ideas

#### SAMPLE RESPONSE 2

Having gone over the numbers I am making the following recommendations.

Due to the high costs per student of the Forest Advandtures program it does not seem like a good idea to continue to offer it. If you ignore the bennefits of the program like bumps in English test scores and personal growth of students it still does not reach as many students as the Sports and School Experience program, and lasts a much shorter amount of time, clearly more students will be effected by the closing Forest Adventures. When making this recommendation, I tried to keep the majority in mind.

I disagree with some of the analysis of the hospital data – both programs have similar rates of hospitalization – and there's a high cost for maintaining our insurance policy for Sports and School Iin the end the Forest Adventures is much more costly for the department overall (at \$21,000.00 annually compared to \$16,000.00) and on an individual student basis (S&SE is around \$130 per student while FAWE is \$640). Above all, the Sports and School Experience program reaches four times as many students as Forest Adventures, making it the more important program to keep.

Once the Forest Adventures program is closed, more money can be directed towards the Sports and School Experience program and perhaps a targeted campaign focusing on the most at-risk youth can fill some of the gaps caused by the loss of this program. Maybe we can even launch a local rock-climbing program as part of the merge.

#### **Analysis and Problem Solving**

#### Subscore: 3

- States or implies a decision/ conclusion/position
- Provides some valid support, but omits or misrepresents critical information, suggesting only superficial analysis and partial comprehension of the documents
- May not account for contradictory information (if applicable)

#### **Writing Effectiveness**

#### Subscore: 3

- Provides limited or somewhat unclear arguments. Presents relevant information in each response, but that information is not woven into arguments
- Provides elaboration on facts or ideas a few times, some of which is valid; sources of information are sometimes unclear

#### **Writing Mechanics**

#### Subscore: 4

- Demonstrates good control of grammatical conventions with few errors
- Writes well-constructed sentences with some varied structure and length
- Uses vocabulary that clearly communicates ideas but lacks variety

#### SAMPLE RESPONSE 3

Clearly the forest adventures program is to dangerous annd should be shut down immediately. Mountain Lion attacks should raise red flags to anyone who wants to send children to adventures which are really dangerous in fact. As Oliver Simpson points out, Ive never heard of a lion attacking a student who was playing flag football.

Besides our childrens safety, we should think of the benefits of the two programs in compared to each other. One of the programs teaches children to sea kayak amd the other teaches the important skills they will definately use for the rest of there life. As part of sports and school experience, students get to have time with college athletes and which gives them role models for there high school times.

So I say that forest adventures be closed and everything sent to sports and school experience even though they coud have more needs in the future and we should recruit more student athletes and grow the athletic programs offered by sports and school experience alot to also add a tackle football team. Sports and school experience is better then forest adventures.

### **Analysis and Problem Solving** Subscore: 2

- States or implies a decision/ conclusion/ position
- Provides analysis that addresses a few ideas as support, some of which is inaccurate, illogical, unreliable, or unconnected to the decision/ conclusion/ position

#### Writing Effectiveness

#### Subscore: 2

- Provides limited, invalid, over-stated, or very unclear arguments; may present information in a disorganized fashion or undermine own points
- Any elaboration on facts or ideas tends to be vague, irrelevant, inaccurate, or unreliable (e.g., based entirely on writer's opinion); sources of information are often unclear

#### **Writing Mechanics**

#### Subscore: 2

- Demonstrates poor control of grammatical conventions with frequent minor errors and some severe errors
- Consistently writes sentences with similar structure and length, and some may be difficult to understand
- Uses simple vocabulary, and some vocabulary may be used inaccurately or in a way that makes meaning unclear

#### **CWRA+ Scoring Rubric**

2

States an explicit

Provides comprehensive

the relevant and credible

#### **Analysis and Problem Solving**

Making a logical decision or conclusion (or taking a position) and supporting it by utilizing appropriate information (facts, ideas, computed values, or salient features) from the Document Library

May state or imply a decision/conclusion/position

Provides minimal analysis as support (e.g., briefly addresses only one idea from one document) or analysis is entirely inaccurate, illogical, unreliable, or unconnected to the decision/conclusion/position

States or implies a decision/conclusion/position

Provides analysis that addresses a few ideas as support, some of which is inaccurate, illogical, unreliable, or unconnected to the decision/conclusion/position

States or implies a decision/conclusion/position

Provides some valid support, but omits or misrepresents critical information, suggesting only superficial analysis and partial comprehension of the documents

May not account for contradictory information (if applicable)

States an explicit decision/conclusion/position

Provides valid support that addresses multiple pieces of relevant and credible information in a manner that demonstrates adequate analysis and comprehension of the documents; some information is omitted

May attempt to address contradictory information or alternative decisions/ conclusions/positions (if applicable)

States an explicit decision/conclusion/position

Provides strong support that addresses much of the relevant and credible information, in a manner that demonstrates very good analysis and comprehension of the documents

Refutes contradictory information or alternative decisions/conclusions/positions (if applicable)

decision/conclusion/position

support, including nearly all of

information, in a manner that demonstrates outstanding analysis and comprehension of the documents

Thoroughly refutes contradictory evidence or alternative decisions/conclusions/positions (if applicable)

#### **Writing Effectiveness**

Constructing organized and logically cohesive arguments. Strengthening the writer's position by providing elaboration on facts or ideas (e.g., explaining how evidence bears on the problem, providing examples, and emphasizing especially convincing evidence)

Does not develop convincing arguments; writing may be disorganized and confusing

Does not provide elaboration on facts or ideas

Provides limited, invalid, over-stated, or very unclear arguments; may present information in a disorganized fashion or undermine own points

Any elaboration on facts or ideas tends to be vaque, irrelevant, inaccurate, or unreliable (e.g., based entirely on writer's opinion); sources of information are often unclear

Provides limited or somewhat unclear arguments. Presents relevant information in each response, but that information is not woven into arguments

Provides elaboration on facts or ideas a few times, some of which is valid: sources of information are sometimes unclear

Organizes response in a way that makes the writer's arguments and logic of those arguments apparent but not obvious

Provides valid elaboration on facts or ideas several times and cites sources of information

Organizes response in a logically cohesive way that makes it fairly easy to follow the writer's arguments

Provides valid elaboration on facts or ideas related to each argument and cites sources of information

Organizes response in a logically cohesive way that makes it very easy to follow the writer's arguments

Provides valid and comprehensive elaboration on facts or ideas related to each argument and clearly cites sources of information

#### **Writing Mechanics**

Demonstrating facility with the conventions of standard written English (agreement, tense, capitalization, punctuation, and spelling) and control of the English language, including syntax (sentence structure) and diction (word choice and usage)

Demonstrates minimal control of grammatical conventions with many errors that make the response difficult to read or provides insufficient evidence to

Writes sentences that are repetitive or incomplete, and some are difficult to understand

Uses simple vocabulary, and some vocabulary is used inaccurately or in a way that makes meaning unclear

Demonstrates poor control of grammatical conventions with frequent minor errors and some severe errors

Consistently writes sentences with similar structure and length, and some may be difficult to understand

Uses simple vocabulary, and some vocabulary may be used inaccurately or in a way that makes meaning unclear

Demonstrates fair control of grammatical conventions with frequent minor errors

Writes sentences that read naturally but tend to have similar structure and length

Uses vocabulary that communicates ideas adequately but lacks variety

Demonstrates good control of grammatical conventions with few errors

Writes well-constructed sentences with some varied structure and length

Uses vocabulary that clearly communicates ideas but lacks variety

Demonstrates very good control of grammatical conventions

Consistently writes well-constructed sentences with varied structure and length

Uses varied and sometimes advanced vocabulary that effectively communicates ideas Demonstrates outstanding control of grammatical conventions

Consistently writes well-constructed complex sentences with varied structure and length

Displays adept use of vocabulary that is precise, advanced, and varied

# Fueling the Future

In a quest to solve the energy problems of the twenty-first century—that is, to find sustainable and renewable sources of energy that are less destructive to the environment yet economical enough to have mass appeal—scientists throughout the world are experimenting with innovative forms of fuel production. While oil is still the most common source of fuel, there is a finite amount of it, and new alternatives will become necessary to sustain the supply of energy that we are accustomed to.

Corn-based ethanol, the most common alternative to traditional fossil fuels (primarily coal, petroleum, and natural gas), is mixed into gasoline in small quantities, and it now accounts for about 10% of the fuel supply from sources within the United States. Because corn is grown on farmland, it is subject to price fluctuations based on supply and demand of the crop, as well as disruptions resulting from naturally occurring events, such as droughts and floods. At present, nearly 40% of the corn grown in the United States is used for fuel, and the demand for corn-based ethanol is rising. To meet this demand, wetlands, grasslands, and forests are all being converted into farmland with the sole intention of growing corn for more ethanol production. Corn grown for ethanol has become a more valuable commodity for farmers than crops grown for food, and this has negatively affected consumers worldwide, as shown by the increasing price of food over time.

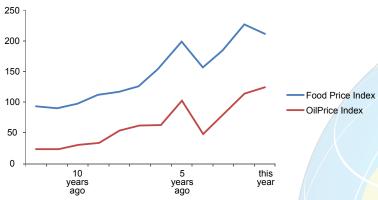


Figure 1: Food and oil price indices (based on information found at www.fao.org and www.indexmundi.com)

Another alternative that has gained attention in recent years is the harvesting of biofuel from algae. Biodiesel, a type of biofuel, is produced by extracting oil from algae, much like the process involved in creating vegetable oils from corn or soybeans. Ethanol can also be created by fermenting algae. Algae biofuel has some unique benefits that separate it from other fossil fuel alternatives. To begin with, while all fuels create

carbon dioxide when they are burned, algae have the ability to recapture and use that carbon dioxide during photosynthesis while they are growing. In this regard, the advantage is enormous. The process of growing algae actually absorbs more carbon dioxide than is released into the atmosphere when it is burned for fuel. Most manufacturing processes strive for "carbon neutrality"—or the balance between carbon emissions and depletion corresponding to a net carbon output of zero. Even better, algae-based biofuel can be described as "carbon negative." Other forms of biofuel can make similar claims. For example, ethanol from corn also eliminates carbon dioxide in the atmosphere through photosynthesis. Unlike corn, however, algae grow in water, usually in man-made ponds built on land not used for crops. Additionally, algae do not require fresh water. Instead algae can be grown in salt water, and, in some cases, even sewage water and other waste material.

The most promising aspect of algae biofuel stems from its yield. When compared to other biofuel producers, algae's fuel yield per harvested acre is over 500 times greater than that of corn.

The following chart compares commonly used biofuel crops on several important factors.

Table 1: Comparison of biofuel crops (based on information found at: algaefuel.org and c1gas2org.wpengine.netdna-cdn.com)

	Product	Oil Yield Gallons/ Acre	Harmful Gas Emissions	Use of Water to Grow Crop	Fertilizer Needed to Grow Crop	Energy Used to Extract Fuel from Crop
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Ethanol from Corn	18	high	high	high	high
	Biodiesel from Soybeans	48	high	high	low- medium	medium- low
	Biodiesel from Canola	127	medium	high	medium	medium- low
	Biodiesel from Algae	10,000	negative	medium	low	high

#### QUESTIONS: SCIENTIFIC AND QUANTITATIVE REASONING

- 1. Which of the following negatively affects algae biofuel's ability to be a "carbon-negative" energy source?
  - A. It takes 3000 liters of water to create one liter of biofuel from algae, which is highly inefficient and wasteful of resources.
  - B. The process of extracting biofuel from algae requires more energy than is generated by burning the biofuel itself.
  - C. The construction of facilities needed to extract algae biofuel would initially require the use of fossil fuels for energy.
  - D. Algae biofuel is about 25 years away from being commercially viable, by which point there will be more efficient alternative energy sources.
- 2. The graph shows that food and oil prices increase and decrease together. Which of the following is the most plausible explanation for this phenomenon?
  - A. As the price of food increases due to supply and demand, the cost of oil also rises because less land is available for planting corn.
  - B. Food and oil suppliers dictate the prices of their goods. Therefore, the prices of food and oil rise as consumers can afford to pay more for commodities.
  - C. The prices of oil and food are simultaneously affected by global conditions, such as natural disasters, weather, famine, and political unrest.
  - D. Farmers plant more corn for ethanol when the price of oil increases. The price of food then rises because less food-yielding crops are being produced.
- 3. What additional information could be added to the table for evaluating the efficiency and viability of algae biofuel compared to other sources of biofuel?
  - A. The average amount of money farmers earn per acre for each biofuel source.
  - B. The costs associated with the extraction of energy from each biofuel source.
  - C. The taxes collected by the government on the sale of each biofuel crop.
  - D. The level of financial support each type of biofuel has received from investors.
- 4. Which of the following could plausibly occur if algae become a highly efficient and cost-effective source of biofuel?
  - A. The price of food would fall because more farmland could be used to produce food rather than corn harvested for ethanol.
  - B. The supply of fresh water would be reduced because of the demands of harvesting algae for biofuel.
  - C. The cost of fuel would rise as the world's markets become flooded with alternative sources of energy.
  - D. The amount of carbon in the air would increase because more fuel will be burned due to lower costs.

#### DOCUMENT 1: CRITICAL READING & EVAULATION

Dear Nord County School Board,

We urge you to consider a ban on serving coffee in the Nord High School cafeteria. This is important for protecting and promoting good health practices in our teenagers. Caffeine is a harmful drug for growing brains and bodies. Many adults struggle to break their own addiction to coffee so allowing the teenagers at Nord High School to begin drinking coffee on a regular basis is a dangerous idea. Teenagers have less self-control and common sense about their own health than their adult counterparts.

There may be parents and researchers who claim that a daily cup or two of coffee for a teenager is not dangerous, but this is a misconception that is easily erased by simply looking at the facts. Teenagers need more sleep than most adults because their minds and bodies are still developing. Caffeine consumption disrupts their sleep cycles and leads to sleepiness during the school day. One study found that teenagers who fell asleep during class consumed 76% more caffeine than those who did not sleep during the school day. Additionally, caffeine consumption can lead to mood swings, impulsiveness, and loss of control. These are issues that many parents deal with. Serving coffee in the Nord High School cafeteria only worsens these problems and threatens the healthy functioning of our high school students.

Ban coffee from Nord High School and help Nord teenagers lead healthier lives.

Sincerely,

Garret Ricci

Garret Ricci

Parent of Nord High School students

# PETITION TO KEEP COFFEE IN OUR SCHOOL CAFETERIA

To all Nord High School students:

Due to complaints from some parents, the Nord School Board is now considering a ban on coffee in our high school cafeteria. This would be an injustice to our school community! We have a right to make our own choices about our bodies and our consumption habits. Coffee is a healthy drink in moderation and is an important part of the school day for students who lead busy lives, balancing homework, friends, work, and extra-curricular activities. Just one cup of coffee during the day can help busy students stay alert and focused.

It's time that the Nord School Board treats high school students like the young adults that we are. They must give us the responsibility of making smart choices, and we will rise to the occasion. We must demand respect for our choices and our needs.

Oppose the ban on coffee in the Nord High School cafeteria by signing the petition below. Protect our rights!

Sincerely yours,		
Lisa Browning		
Nord High School Senior Class President		
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#### QUESTIONS: CRITICAL READING & EVAULATION

- 1. Which of the following statements, if true, would most seriously weaken Garret Ricci's claim?
  - A. Teenagers who are prone to mood swings and impulsiveness consume caffeine at the same rate as their peers.
  - B. Adults who consume a small amount of caffeine daily are able to multitask more efficiently.
  - C. Adults who consume caffeine regularly were not necessarily coffee drinkers as teenagers.
  - D. Eighty percent of caffeine consumed by teenagers is consumed in the form of soda and other caffeinated noncoffee beverages.
- 2. Which of the following is a significant flaw in the Garret Ricci's argument?
  - A. The author assumes that teenagers have less self-control than adults, without any evidence.
  - B. The author claims that sleeping during class is caused by caffeine consumption, while it may be that caffeine consumption is a result of sleepiness.
  - C. The author associates sleep and mood with health, without explaining the connection.
  - D. The author uses anecdotal evidence from parents and teenagers, rather than a substantial body of research.
- 3. On which point do Garret Ricci and Lisa Browning most clearly disagree?
  - A. the ability of teenagers to make reasonable judgments about their own health
  - B. the usefulness of coffee as a replacement for sleep
  - C. the effects of coffee on the human brain and body
  - D. the prevalence of coffee in a variety of cultural and commercial settings
- 4. It can be inferred that Lisa Browning would **most likely** agree with which of the following statements?
  - A. The School Board should not be allowed to make decisions about anything that affects the daily life of students.
  - B. The job of a class president is to protect the rights of students and represent their voices.
  - C. Parents who complain about coffee in the cafeteria have a negative view of teenagers.
  - D. Every high school student should enjoy the physical and mental benefits of coffee by drinking it daily.
- 5. Which of the following statements could be used as a counterargument to Garret Ricci's claim?
  - A. Coffee needs to be available in high school cafeterias for the teachers and staff members who rely on it.
  - B. Because of its bitter taste, most teenagers are unlikely to consume coffee, whether or not it is served in their high school cafeterias.
  - C. Teenagers will be exposed to coffee elsewhere, so it is important that they learn to consume it in school, with self-control and moderation.
  - D. It is the parents' job, not the school's, to determine whether their teenagers should consume caffeine.

#### DOCUMENT: CRITIQUE-AN-ARGUMENT

#### **ARGUMENT**

Law-enforcement agencies depend heavily on eyewitnesses to identify suspected criminals. Indeed, it is estimated that 77,000 people nationwide are put on trial each year because of eyewitness identification. Traditionally, eyewitnesses are asked to identify suspects in a police "lineup" where suspected criminals are presented along with known innocents, called fillers, in a simultaneous (all at once) lineup. However, nowadays the lineups typically involve photos, not actual people. New research conducted in a well-controlled laboratory setting suggests that presenting photographs in a sequential (one at a time) lineup significantly reduces eyewitnesses' identification of fillers from 18% in simultaneous lineups to 12% in sequential ones. It is clear that the sequential lineup is far superior to the simultaneous one, and it is imperative that law-enforcement agencies change the way in which eyewitnesses identify criminal suspects. This will greatly reduce the number of innocent people put on trial.

#### QUESTIONS: CRITIQUE-AND-ARGUMENT

- 1. Which of the following is the strongest argument against the speaker's position that law-enforcement agencies need to change eyewitness identifications from simultaneous to sequential lineups?
  - A. Simultaneous lineups have traditionally been used and have always worked well, so it does not make sense to change things.
  - B. Eyewitnesses using a sequential lineup may not be better at ruling out fillers because the rate of misidentification between the two groups is not that large.
  - C. It is easier for eyewitnesses to rule out fillers in a simultaneous lineup because they are seeing everyone at the same time.
  - D. People should have faith in the legal system because there are many steps in the judicial process to prevent an innocent person from going on trial.
- 2. The speaker states that the study was conducted in a well-controlled laboratory setting. The speaker probably intended this statement to
  - A. establish that a laboratory study is better than a study that was conducted in the field because it is free of competing explanations for the difference between the two lineups.
  - B. illustrate that a laboratory setting is one in which a placebo must be in place in order for researchers to draw an accurate conclusion about the two lineups.
  - C. demonstrate that both real-world and scientific experiments can be conducted in laboratory settings because laboratory settings are neutral environments.
  - D. reveal that the results of the study are not accurate because studies conducted in a laboratory setting are contrived and not a reflection of what happens in the real world.
- 3. Which of the following research results would best strengthen the case for law-enforcement agencies using sequential lineups instead of simultaneous ones?
  - A. The same percentage of suspects was found guilty by juries regardless of whether a sequential or simultaneous lineup was used.
  - B. Eyewitnesses presented with a sequential lineup made fewer overall selections than those presented with a simultaneous lineup.
  - C. Eyewitnesses presented with a sequential lineup feel more confident about their choices than those presented with a simultaneous lineup.
  - D. Fewer fillers were identified as criminals by eyewitnesses presented with a sequential lineup than those presented with a simultaneous one in real-life cases.

- 4. What assumption does the speaker make when stating that law-enforcement agencies can reduce the number of innocent people sent to prison if they use sequential lineups?
  - A. Eyewitnesses could identify fillers as criminal suspects who then could be incorrectly put on trial and ultimately sent to prison.
  - B. If the simultaneous lineup is less accurate at identifying suspects, then more fillers are misidentified and incorrectly tried than if law-enforcement agencies only use sequential lineups.
  - C. If the sequential lineup is better at increasing the number of correctly identified suspects, then the fillers will no longer be needed, leading to fewer people being incorrectly put on trial.
  - D. People who act as fillers in multiple lineups could be incorrectly identified as suspects in one lineup but not in another.
- 5. Eyewitnesses from multiple cases were recruited to participate in a follow-up study where they were randomly assigned to one of two groups. Which one of the following research designs could be used to test the hypothesis that an officer's body language influences eyewitnesses' ability to correctly identify a suspect in a lineup?
  - A. Have officers with knowledge of the cases present images in a sequential lineup to one group of eyewitnesses and in a simultaneous lineup to the other group.
  - B. Have officers with no knowledge of the cases present images in a sequential lineup to one group of eyewitnesses and in a simultaneous lineup to the other group.
  - C. Have officers with knowledge of the cases present images to one group of eyewitnesses and officers with no knowledge of the cases present images to the other group.
  - D. Two officers, one with and one without knowledge of the cases, present images to one group of eyewitnesses and another officer with knowledge of the cases presents images to the other group.