

**Guided Highlighted Reading ACT Exam A – Passage 4 - Natural Science**  
**The Health Effects of Caffeine**

Discusses the complexities governing the use of caffeine in food and beverages

**Background Knowledge**

(The overview is to be given by the teacher prior to the highlighted reading.)

**Anticipation Guide:** *Do you know what is considered a safe level of caffeine consumption? You will learn the complexities for governing the use of caffeine because in some foods the caffeine is natural and in some it is added. You will learn what the new studies have revealed about the safety of caffeine and what this new information will do to caffeine-enhanced food.*

**Summary:**

Caffeine use, according to new studies, causes health problems in test animals signaling a proposal to change rules regulating caffeine in beverages. The complication is that caffeine is regulated under three different sections of the Federal Food, Drug, and Cosmetic Act.

**Genre:** A cause and effect essay with the intent to inform the reader.

**How the Text is Written:** After a paragraph to foreshadow the essences of the subject, the essay tumbles into cause and effect chain reactions of “if this, then this” determining the future for caffeine use in cola drinks with implications for the future of cola caffeine drinkers

**Vocabulary:** Words are bolded and defined in the paragraph in which they appear. The teacher reads the word and the definition. If time permits have the students say the word five times.

**Guided highlighted reading:** Each student has a highlighter pen. The teacher reads the paragraph and directions for highlighting. The teacher reads as rapidly as students can follow. The purpose is to get students to push their eyes rapidly across the text to find the text to be highlighted.

**The goals** for this activity are to prepare for reading a selection, build silent reading fluency, to determine what is important in a paragraph, to make inferences, and to read with a larger context in mind.

**The teacher reads the following:**

**Paragraph 1**

Highlight what in present time changed the attempts to ban and restrict consumption of caffeine.

**Paragraph 2**

Highlight what the studies linked.

**Paragraph 2**

Highlight the reason regulating caffeine use is complex.

**Paragraph 2**

Highlight why caffeine is regulated by three separate sections of the FDA.

**Paragraph 3**

**Vocabulary: adulterated** - to corrupt, debase, or make impure by the addition of a foreign or inferior substance or element.

**Paragraph 3**

Highlight why FDA has not prohibited the use of caffeine.

**Paragraph 4**

Highlight what GRAS means.

**Paragraph 4**

Highlight what status the label of GRAS gives to food processors.

**Paragraph 5**

Highlight another use for caffeine.

**Paragraph 5**

Highlight why caffeine is added to pain relievers and cold remedies.

**Paragraph 6**

Highlight who reviewed all the scientific evidence on caffeine.

**Paragraph 6**

Highlight what this committee recommended be done with caffeine.

**Paragraph 6**

Highlight what the FDA's proposal, if adopted, will do to caffeine.

**Paragraph 7**

Highlight what action food processors must take to preserve the right to use caffeine as an additive.

**Paragraph 7**

Highlight what the FDA will do if caffeine is not redeemed by scientific evidence.

**Paragraph 8**

Highlight the "chief flavoring agent" in soft drinks.

**Paragraph 8**

Highlight the percentage that is added caffeine.

**Paragraph 9**

Highlight what is and what is not listed on the product label.

**Paragraph 10**

Highlight what, under the FDA proposal, would become optional ingredients for soft drinks.

**Paragraph 11**

Highlight what would not be affected by this proposed regulation.

## Assignment – Exam A – Passage 4 - Natural Science

**Question # 1: What does the text say? (Briefly summarize the short story at a literal level.)**

### Rubric for Question # 1

The Health Effects of Caffeine

Questions	3 (meets assignment)	2 (partially meets)	1 (minimally meets)
<b>What does the text say? (Briefly summarize the story.)</b>	Answer is accurate, significant, and relevant with many details and examples. Details support point. Word choice and conventions support meaning.	Answer is accurate, significant, and relevant but has few details to support or explain the answer. Attempts at organization are partially successful. Word choice and errors in conventions do not distract from meaning.	Answer is inaccurate or a misinterpretation with little or no relevance to text or question. Ideas and content are not developed with details or appear random. Word choice and errors in conventions may distract from meaning.

### Sample Anchor Text

**3**

Caffeine use, according to new studies, causes health problems in test animals signaling a proposal to change rules regulating caffeine in beverages. The complication is that caffeine is regulated under three different sections of the Federal Food, Drug, and Cosmetic Act. The result of this study could change the way caffeine is used in making beverages and what is reported as ingredients in products.

**2**

Caffeine is found to be possibly harmful to humans and there are proposals to change how caffeine is used in food products. This is being proposed by the FDA that establishes rules for food processors. If the food processors can't prove that caffeine is safe, cola beverages could possibly be made without caffeine.

**1**

This is about caffeine causing health problems and what the FDA will do about it. Caffeine is used for many purposes. Sometimes it is naturally in the food and sometimes caffeine is added to the product. In the future, cola may be made without the caffeine.

## Assignment – Exam A – Passage 4 - Natural Science

**Question # 2: How does it say it? In other words how does the author develop the text to convey his/her purpose? (What are the genre format organization/features etc.?)**

### Rubric for Question #2

The Health Effects of Caffeine

Questions	3 (meets assignment)	2 (partially meets)	1 (minimally meets)
<b>How does it say it? In other words, how does the author develop the text to convey his/her purpose? (What are the genre, format, organization, features, etc.?)</b>	Answer is relevant with many details and examples. Details support point. Word choice and conventions support meaning.	Answer is relevant but has few details to support or explain the answer. Attempts at organization are partially successful. Word choice and errors in conventions do not distract from meaning.	Answer contains misinterpretation and has little or no relevance to text, question, or genre. Ideas and content are developed with few or no details. Word choice and errors in conventions may distract from meaning.

### Sample Anchor Text

**3**

This cause and effect essay was intended to inform the reader. After the first paragraph foreshadowed the coming of scientific evidence against the use of caffeine and a brief explanation of the regulatory role of the FDA, the essay tumbles into cause and effect chain reactions of “if this, then this.” It ends with what could potentially be the future for caffeine use in cola drinks with implications for the future of cola caffeine drinkers.

**2**

This was written in cause and effect about the scientific findings of the harm caused by caffeine. It was written as an information piece with an explanation of what could happen if a proposal is adopted to curb the use of caffeine in beverages. It was a clear sequence of the effects of the proposal by the FDA.

**1**

This is an essay to show what could happen now that caffeine is found to be harmful. It tells what might happen to colas, if they can’t find out that caffeine is safe to drink.

## Assignment – Exam A – Passage 4 - Natural Science

**Question # 3: What does the text mean? (What theme/concept is the author trying to get across?)**

### Rubric for Question #3

The Health Effects of Caffeine

Questions	3 (meets assignment)	2 (partially meets)	1 (minimally meets)
<b>What does the text mean? (What theme/concept is the author trying to get across?)</b>	Answer is relevant with many details and examples. Details support point. Word choice and conventions support meaning.	Answer is relevant but has few details to support or explain the answer. Attempts at organization are partially successful. Word choice and errors in conventions do not distract from meaning.	Answer contains misinterpretation and little or no relevance to text or question or is a retelling or summary. Ideas are not developed with details. Word choice and errors in conventions may distract from meaning.

### Sample Anchor Text

**3**

The theme of this essay could be too much of a good thing will hurt you or everything in moderation and nothing in excess. The studies on the use of coffee have been inconsistent and leaves the “buyer to beware” or make their own choice. The interesting thing about this article is the various sections of the FDA that are responsible for different aspects of regulation.

**2**

The theme of this article could be “divide and conquer.” So many sections of the FDA are involved in regulating the caffeine it is difficult to regulate the use and assure its safety. It leaves many questions about their findings when only the cola beverages are being targeted.

**1**

This passage is about caffeine and how it is now found to be harmful to animals. It assumes it will be harmful to humans. They have proposed a ban on caffeine in beverages. How will some students make it through the day?

## Assignment - Exam A – Passage 4 - Natural Science

**Question # 3: So what? (What does the message/theme/concept mean in your life and/or in the lives of others? Why is it worth sharing/telling? What significance does it have to your life and/or to the lives of others?)**

### Rubric for Question # 4

The Health Effects of Caffeine

Questions	3 (meets assignment)	2 (partially meets)	1 (minimally meets)
<b>So what? (What does the message/theme/concept mean in your life and/or in the lives of others? Why is it worth sharing/telling? What significance does it have to your life and/or to the lives of others?)</b>	Answer is relevant and/or insightful with many details and examples. Details support point. Word choice and conventions support meaning.	Answer is relevant but has few details to support or explain the answer. Attempts at organization are partially successful. Word choice and errors in conventions do not distract from meaning.	Answer contains misinterpretation and has little or no relevance to text or question. Answer appears random or inappropriate. Ideas and content are not developed with details. Word choice and errors in conventions may distract from meaning.

### Sample Anchor Text

**3**

This controversy with the research on the use of caffeine in coffee and colas goes on. Some studies say it is good for you and then you get the next study that cautions you not to drink it. I just go ahead and drink it in coffee and cola beverages. I guess “everything in moderation” would be the guide to use.

**2**

This doesn't really have an impact on my life because I don't use caffeine. It does concern me that, if it is found to be harmful it will take a will to ban the use of it. I wonder about other things that are regulated by the FDA and how effect their regulating is.

**1**

I figure that if they ban caffeine in beverages, people will just find another way to get it illegally. That seems to be the way it works.