



DELAWARE



**GRADES 10-12
HEALTH SCIENCES**

**CLOSE READING
COHORT 1**

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CLOSE READING



HEALTH SCIENCES

Close Reading Lesson Title: Alcohol Contributes to Cancer Mortality
 Designed by: Peg Enslin
 Course: Health Sciences
 Grade: 10 - 12

The Text: “Alcohol Contributes to Cancer Mortality and Years Lost”

<p>Alcohol is responsible for 3.5% of all cancer deaths in the United States, according to the first major <u>analysis</u> of the link between alcohol and cancer in 30 years, when the risk was deemed similar. Despite research suggesting that a glass of wine makes hearts healthier, alcohol causes 10 times as many deaths as it prevents, according to the new study. Moreover, <u>downing</u> just 20 to 40 g of alcohol (one and a half to three alcoholic drinks) daily raises the risk of cancer, and there's really no safe amount when it comes to that risk.</p>	<p>investigation</p> <p>drinking grams</p>
<p>Reporting in the April issue of the American Journal of Public Health, the researchers examined alcohol-<u>consumption</u> and death data from 2009. About 19,500 alcohol-related cancer deaths occurred. Cancers of the oral cavity, pharynx, larynx, and esophagus accounted for about 71% of alcohol-associated cancers in men, and 15% of breast cancer deaths in women were tied to alcohol consumption. Each alcohol-related cancer death <u>accounted</u> for 17 to 19 years of <u>potential</u> life lost. “This is an <u>astounding</u> statistic,” says Pamela J. Haylock, chief executive officer of the Association for Vascular Access and former president of the Oncology Nursing Society, who wasn't connected to the study.</p>	<p>intake</p> <p>the reason for possible surprising</p>
<p>Alcohol intake is an important and <u>modifiable</u> cancer risk factor that's overlooked in cancer prevention strategies, which are typically devoted to cancer screenings, smoking cessation, and weight reduction. Alcohol receives surprisingly little attention from public health and anticancer organizations. Stronger and more <u>comprehensive</u> efforts are needed to reduce the effects of alcohol on cancer risk. Nurses can contribute to cancer prevention, says Haylock, “by disseminating the information that there's no <u>apparent threshold</u> when it comes to alcohol and cancer risks.”</p>	<p>changeable</p> <p>complete</p> <p>to spread widely an obvious point of having harmful effects</p>
<p>Overall, alcohol <u>contributes</u> to 79,000 deaths and costs the United States \$223.5 billion yearly, according to a second report, published</p>	<p>adds to</p>

<p>in the January 24 New England Journal of Medicine. That report urges health care <u>providers</u> to use validated tools such as those from the National Institute on Alcohol Abuse and Alcoholism to <u>screen</u> for risky drinking during routine and <u>preventive</u> care.</p> <p>Nurses working in <u>primary care</u>, health fair settings, occupational health programs, student health services, and public health can perform alcohol screenings. “Just adding a couple of alcohol consumption <u>queries</u>,” says Haylock, “might open the discussion and bring increased awareness.”</p>	<p>physicians or practitioners</p> <p>assess for preventing or slowing illness</p> <p>medical care at first contact</p> <p>questions</p>
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Alcohol Contributes to Cancer Mortality and Years Lost

By: Carol Potera

http://journals.lww.com/ajnonline/Fulltext/2013/05000/Alcohol_Contributes_to_Cancer_Mortality_and_Years.10.aspx SECTION 1: Lexile Measure 1420 Grades 11-12

Learning Objective: The goal of this one day exemplar is to give Health Science teachers multiple pathways to careful reading of a typical Health Science article with their students. All of these suggestions, used alone or in any combination, will provide students the opportunity to use the reading and writing habits they need to employ on a regular basis to absorb important content – in this case about the relationship between cancer mortality and alcohol consumption. By reading and rereading the passage closely, and focusing their reading through either a series of questions and discussion about the text or the structured journal approach outlined here, students will come away with a working knowledge of some of the deleterious effects of alcohol consumption.

Initially, teaching this way will take much more time than swiftly reviewing textbook content and key ideas with students through an oral exchange. Content area teachers, tasked with covering a course full of objectives might legitimately feel they cannot afford this time, but the learning students will achieve when they can access the textbook content and other related articles on their own with confidence will be far more durable and deep. If content area teachers regularly insist on students reading the text for full understanding as this exemplar models, in the long run, teachers will be able to teach much more rich and sophisticated content than they currently can. They can do so because they know the students have mastered the basics in the course text and other related articles.

Reading Task: This close reading approach forces students to use the text as a source of information. Notify students that the text is densely packed with ideas, and they are not expected to understand it fully on a first reading—that they can expect to struggle and reread. Some students may be frustrated, but all students need practice in doing their best to stay with something they do not initially understand and to learn to use the tools provided by the teacher.

Depending on the difficulties of a given subsection, what points the teacher wants to emphasize, and the teacher’s knowledge of the students’ abilities, there might be more or less rereading or oral reading. What is important is to allow all students to interact with challenging text on their own as frequently and independently as possible.

Vocabulary Task: Many of the meanings of words in the exemplar text can be discovered by students from careful reading of the context in which they appear. Teachers can use discussions to model and reinforce how to learn vocabulary from contextual clues, and students must be held accountable for engaging in this practice. Vocabulary supported with contextual clues has been **bolded**. Where it is judged using contextual clues is not possible, underlined words are defined briefly for students to the right of the text in a separate column. At times, this is all the support these defined words need. At other times, particularly with abstract words, teachers will need to spend more time explaining and discussing them. Given how crucial vocabulary knowledge is for academic and career success, it is essential that these high value words be discussed and lingered over during the instructional sequence even if they are not directly connected to the topic of the lesson.

Discussion Task: Students will discuss each section in depth with their teacher and their classmates, after having performed activities that help develop an understanding of the deleterious effects of alcohol. The goal of the discussion is for the teacher to ensure that students are confident about some of the deleterious effects of alcohol. The reason for the independent work coming in advance of the discussions is to foster students' confidence when encountering complex text and to reinforce the skills they have acquired regarding how to build and extend their understanding of a text. A general principle is to always reread the passage that provides evidence for the question under discussion. This gives students another encounter with the text, helping them develop fluency and reinforcing their use of text evidence.

Writing Task: Students will be held accountable for the content of these sections through their work in answering the text-dependent questions and formal writing. Teachers might afford students the opportunity to revise their question responses after participating in classroom discussion or even rewrite their explanation after receiving teacher feedback, allowing them to revise both their understanding of the text and their expression of that understanding.

Text Selection: This exemplar text, taken from an online nursing journal, was chosen because of its practical content regarding healthcare. Additionally, healthcare providers need to be knowledgeable about the topic of the deleterious effects of alcohol, and raise awareness of healthy lifestyles and high-risk behaviors. Many students (especially young drivers) are bombarded with the immediate consequences but not the long-term effects of alcohol consumption. This exemplar is intended to stand as an example of how to engage students more deeply than in customary textbook reading and to hold them accountable when doing so. It is also intended to encourage and engage students to seek professional journal articles for relevant and current topics of interest.

Outline of Lesson Plan: This close reading and discussion portion of the exemplar is brief enough to be completed in a single day. It is intended to demonstrate several different methods that teachers can modify to their own classroom purposes. Because it is so flexibly designed, the amount of time spent on the activities will vary widely. Below is our recommended sequence, which is intended to take one day. Teachers may want to consider one or more of the extension activities, adding further days of instruction.

Text-based questions and tasks: Text sections appear in the left column. The added right hand column holds questions for students and commentary for the teacher. These questions are designed to be answered independently by students or in small groups, so the commentary is limited. They can be printed off and given to students directly as homework or classwork, if desired. They can also be used as the basis of class discussion of the material, since they would guide a discussion to most of the key content these sections hold.

SECTION 2:

1. Introduce the passage and students read independently.

If the students need to know information not provided by the author, provide the information when the passage is introduced. Introduction of the passage should be provided to struggling readers with an explanation up to a few days prior to the class lesson.

2. Read the passage to the class as students follow along.

Ask students to listen to the text exposing them a second time to the rhythms and meaning of the author's language before they begin their own close reading of the passage. Speaking clearly and carefully will allow students to follow the author's explanation, and reading aloud with students following along improves fluency while offering students access to this complex text. Accurate and skillful modeling of the reading provides students who may be less fluent with accurate pronunciations and syntax.

3. Ask the class to answer a small set of text-dependent guided questions and perform targeted tasks about the passage, with answers in the form of notes, annotations to the text, or more formal responses as appropriate.

As students move through these questions and re-read the author's text, be sure to check for and reinforce their understanding of academic vocabulary (boldfaced in the text) and sentence structure. At times, the questions themselves may focus on academic vocabulary or syntax. Allow students to have written questions on paper or projected while discussing in collaborative pairs or independent writing. Have students use an organizer to collect concepts and facts discussed in collaborative pairs and then as a class. Encourage students to use organizers to independently construct short responses to the same set of questions.

Standards Covered:

Common Core State Standards: CCSS.ELA-Literacy.RTS.11-12.1, RTS.11-12.5, RTS.11-12.6, RTS.11-12.8, RTS.11-12.10.

NCHSE Foundation Standards: FS 1.13, FS1.21, FS1.22, FS2.14, FS2.21, FS9.11, FS9.12

Key Concepts: How does alcohol consumption contribute to cancer mortality and decreased longevity? Many students may be aware of the short-term consequences of alcohol consumption; however, they may not be aware of the longer term effects. What is the role of health professionals in increasing awareness of the deleterious effects of alcohol consumption as it relates to cancer?

Key Terms:

consumption
analysis
accounted
potential
astounding

modifiable
disseminating
comprehensive
threshold
contributes

providers
preventive
primary care
queries
awareness

Exemplar Text	Vocabulary	
<p>Alcohol is responsible for 3.5% of all cancer deaths in the United States, according to the first major <u>analysis</u> of the link between alcohol and cancer in 30 years, when the risk was deemed similar. Despite research suggesting that a glass of wine makes hearts healthier, alcohol causes 10 times as many deaths as it prevents, according to the new study. Moreover, <u>downing</u> just 20 to 40 g of alcohol (one and a half to three alcoholic drinks) daily raises the risk of cancer, and there's really no safe amount when it comes to that risk.</p> <p>Reporting in the April issue of the American Journal of Public Health, the researchers examined alcohol-<u>consumption</u> and death data from 2009. About 19,500 alcohol-related cancer deaths occurred. Cancers of the oral cavity, pharynx, larynx, and esophagus accounted for about 71% of alcohol-associated cancers in men, and 15% of breast cancer deaths in women were tied to alcohol consumption. Each alcohol-related cancer death <u>accounted</u> for 17 to 19 years of <u>potential</u> life lost. “This is an <u>astounding</u> statistic,” says Pamela J. Haylock, chief executive officer of the Association for Vascular Access and former president of the Oncology Nursing Society, who wasn't connected to the study.</p> <p>Alcohol intake is an important and <u>modifiable</u> cancer risk factor that's overlooked in cancer prevention strategies, which are typically devoted to cancer screenings, smoking cessation, and weight reduction. Alcohol receives surprisingly little attention from public health and anticancer organizations. Stronger and more <u>comprehensive</u> efforts are needed to reduce the effects of alcohol on cancer risk. Nurses can contribute to cancer prevention, says Haylock, “by disseminating the information that there's no <u>apparent threshold</u> when it comes to alcohol and cancer risks.”</p> <p>Overall, alcohol <u>contributes</u> to 79,000 deaths and costs the United States \$223.5 billion yearly, according to a second report, published in the January 24 New England Journal of Medicine. That report urges health care <u>providers</u> to use validated tools such as those from the</p>	<p>investigation</p> <p>drinking grams</p> <p>intake</p> <p>the reason for possible surprising</p> <p>changeable</p> <p>complete</p> <p>to spread widely an obvious point of having harmful effects</p> <p>adds to</p> <p>physicians or practitioners</p>	<p>(Q1) The author mentions that benefits of drinking alcohol have been reported in the past. What is the mentioned benefit? The teacher should explain the reported connection between raising the HDLs and the author’s explanation of “making hearts healthier.” The teacher could also explain the components of a lipid panel or lipid profile when discussing alcohol consumption:</p> <ul style="list-style-type: none"> • Total cholesterol • HDL cholesterol • LDL cholesterol • Triglycerides, a type of fat often increased by sweets and alcohol <p>(Q2) Why does the author mention that alcohol causes ten (10) times more deaths as it prevents?</p> <p>(Q3) In the first paragraph, why does the author state, “there is really no safe amount when it comes to that risk”?</p> <p>(Q4) Which two journals reported research on the topic of alcohol-related cancer deaths in this article, and how many patients were involved in each report? The teacher should provide an explanation of credible journals and bodies of research as well as to explain how the correlational analysis may have been conducted retrospectively (by reviewing medical records) and the likelihood that the rates could be much higher than reported depending on the healthcare provider’s documentation and the patient’s accuracy of their admitted alcohol consumption.</p>

<p>National Institute on Alcohol Abuse and Alcoholism to <u>screen</u> for risky drinking during routine and <u>preventive</u> care.</p> <p>Nurses working in <u>primary care</u>, health fair settings, occupational health programs, student health services, and public health can perform alcohol screenings. “Just adding a couple of alcohol consumption <u>queries</u>,” says Haylock, “might open the discussion and bring increased awareness.”</p>	<p>assess for preventing or slowing illness medical care at first contact questions</p>	<p>(Q5) What does the author mean when she states in the 3rd paragraph, “Alcohol receives surprisingly little attention from public health and anticancer organizations.”?</p> <p>(Q6) Where are some of the practice settings or programs where nurses (and other health professionals) may have the opportunity to ask questions of people and bring increased awareness to the topic of alcohol?</p>
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Underline = words which cannot be discovered in context by students.

Boldface words are tier 2 that can be determined in context.

SECTION 4:

Day Two Activities:

1. Students go back through the section and either finish or revise their guiding questions and tasks about the text independently.
2. After the independent work:
 - A. Students discuss the section with the teacher who elaborates on the work the students did and on the information provided in the text.
 - B. Students will write an informational essay of the benefits and risks of consuming alcohol. The student should use evidence from this text to support and develop thinking. The student should use specific evidence from the text to support and develop the topic and explains that evidence.

The informational essay should include the following:

 - A clear introduction
 - The benefit of consuming alcohol
 - The risks of consuming alcohol
 - Comparison of the risks and benefits
 - Conclusion

- C. Complete any or all of the Extension Activities. Extension Activities A-D are better group activities and Extension Activity E is recommended as an independent activity.

Extension Activities: Additional instructional opportunities exist if the teacher wishes to extend the amount of time they wish to spend on this exemplar.

- A. Teachers have students do a web search for alcoholic drinks and the different measurements or quantities. The variety of alcoholic drinks/cocktails/spirits available may be new information for some students. Some students may be familiar with some of the newer alcoholic drinks and less familiar with some of the older drinks or cocktails. See following examples:**

How strong are different types of alcohol?

Each of the major alcoholic drinks: beer, cider, wine and spirits contain alcohol in different concentrations. The alcoholic strength in a drink is shown on the label as % vol. Beer, lager and cider are about 5% vol. (5 parts ethanol to 95 parts water), but some brands are stronger than others. Wine is 2 or 3 times stronger and distilled spirits are even stronger - around 40% vol.

Alcoholic drinks also come in different measures or quantities. To find out how strong a drink actually is, the strength (% vol) is combined by the measure or size. Find out how much alcohol is in the main types of drinks below.

Table 1: Alcoholic Drinks and Alcohol content

Type: Beer

Size: Half pint/glass (284ml) = 9.8 Grams of Alcohol

Size: Small can (330ml) = 11.4 Grams of Alcohol

Size: Large can (500ml) = 17.2 Grams of Alcohol

Size: Pint (568ml) = 19.5 Grams of Alcohol

Alcohol strength-vol % = 4.3%

Type: Cider

Size: Half pint/glass (284ml) = 13.6 Grams of Alcohol

Size: Small can (330ml) = 15.8 Grams of Alcohol

Size: Large can (500ml) = 24.0 Grams of Alcohol

Size: Pint (568ml) = 27.3 Grams of Alcohol

Alcohol strength-vol % = 6%

Type: Wine

Size: Small glass (100ml) = 9.6 Grams of Alcohol

Size: Medium glass (125ml) = 12.0 Grams of Alcohol

Size: Quarter bottle (187.5ml) = 18.0 Grams of Alcohol

Alcohol strength-vol % = 12%

Type: Sherry/Port

Size: Single glass (71ml) = 11.4 Grams of Alcohol

Alcohol strength-vol % = 20%

Type: Spirit-based drinks

Size: Barcardi Breezers (275ml) = 11.9% Grams of Alcohol = Alcohol strength-vol % = 5.4%

Size: Smirnoff Ice (275ml) = 12.1 Grams of Alcohol = Alcohol strength-vol % = 5.5%

Size: Woodys (330ml) = 12.4 Grams of Alcohol = Alcohol strength-vol % = 4.7%

Type: Spirits

Size: Single measure (35.5ml) = 11.2 Grams of Alcohol

Size: Double measure (70ml) = 22.4 Grams of Alcohol

Alcohol strength-vol % = 40%

- B. Teachers have students measure and label volumes of colored water to see the amounts in US Customary Measurements versus Metric Measurements and the corresponding grams of alcohol and subsequent volume % of alcohol per drink or bottle.**
- C. How and why the healthcare providers obtain information from patients may be a new concept for some students. Discussing past medical history that includes information about lifestyle choices and risky behaviors can seem awkward without practice. The teacher could have students review the NIH Three Question Set and practice interviewing a partner or partners.**

The National Institute on Alcohol Abuse and Alcoholism recommends minimum of three questions to adequately capture the range of drinking patterns. Research has shown the importance of learning about people's patterns of alcohol consumption, not just their average levels of consumption (e.g., average number of drinks consumed in a week). Patterns of alcohol consumption (that may include frequent regular drinking of small amounts or infrequent episodes of consuming very large quantities all at one time) cannot be adequately described or differentiated by asking only two questions about drinking. Two questions can measure only averages (based on questions about typical drinking frequencies and quantities) or extreme patterns (such as abstinence and heavy episodic drinking). To more adequately capture the range of drinking patterns requires a minimum of three questions. Specifically, a measure of frequency of heavy drinking (5 or more standard drinks within a two-hour period for men, 4 or more for women), and standard questions about frequency of alcohol use and typical number of drinks per day when alcohol is used, are necessary to adequately describe drinking patterns and total volume of alcohol consumed.

Retrieved 7/22/13 from: <http://www.niaaa.nih.gov/research/guidelines-and-resources/recommended-alcohol-questions>

Three Question Set

Question 1 - (asks about frequency of past 12 months of drinking)

During the last 12 months, how often did you usually have any kind of drink containing alcohol? By a drink we mean half an ounce of absolute alcohol (e.g. a 12 ounce can or glass of beer or cooler, a 5 ounce glass of wine, or a drink containing 1 shot of liquor). Choose only one.

Every day

5 to 6 times a week

3 to 4 times a week

twice a week

once a week

2 to 3 times a month

once a month

3 to 11 times in the past year

1 or 2 times in the past year

(IF RESPONDENT GIVES ANY OF THE ABOVE RESPONSES, GO TO QUESTION 2)

I did not drink any alcohol in the past year, but I did drink in the past.

(GO TO QUESTION 1A)

I never drank any alcohol in my life.

(GO TO QUESTION 1B)

Question 1A - During your lifetime, what is the maximum number of drinks containing alcohol that you drank within a 24-hour period? (asked here only of those who did not drink any alcohol during the past 12 months)

36 drinks or more

24 to 35 drinks

18 to 23 drinks

12 to 17 drinks

8 to 11 drinks

5 to 7 drinks

4 drinks

3 drinks

2 drinks

1 drink

(DONE WITH ALCOHOL QUESTIONS)

Question 1B - So you have never had a drink containing alcohol in your entire life? (asked only of those who say they never drank alcohol in their lives)

Yes, I never drank.

(DONE WITH ALCOHOL QUESTIONS)

No, I did drink.

(GO BACK TO QUESTION 1 AND REPEAT)

Question 2 - (asks about number of drinks on typical drinking day in past 12 months)

During the last 12 months, how many alcoholic drinks did you have on a typical day when you drank alcohol?

25 or more drinks

19 to 24 drinks

16 to 18 drinks

12 to 15 drinks

9 to 11 drinks

7 to 8 drinks

5 to 6 drinks

3 to 4 drinks

2 drinks

1 drink

Question 3 - (asks about frequency of binge drinking in past 12 months)

During the last 12 months, how often did you have 5 or more (males) or 4 or more (females) drinks containing any kind of alcohol in within a two-hour period? [That would be the equivalent of at least 5 (4) 12-ounce cans or bottles of beer, 5 (4) five ounce glasses of wine, 5 (4) drinks each containing one shot of liquor or spirits - to be provided by interviewer if asked.] Choose only one:

Every day

5 to 6 days a week

3 to 4 days a week

two days a week

one day a week

2 to 3 days a month

one day a month

3 to 11 days in the past year

1 or 2 days in the past year

- D. Teachers have students conduct a web search for web sites other than the National Institutes on Alcohol Abuse and Alcoholism (NIAAA a subdivision of NIH) for recommended alcohol use as advised by US Surgeon General and/or the Affordable Care Act.**
- E. Teachers have students write a report about the adverse effects of alcohol consumption as a cause of cirrhosis of the liver or the adverse effects of alcohol consumption during pregnancy and resultant Fetal Alcohol Syndrome being certain to have the students include causes, symptoms, diagnosis, complications, treatment, and prevention as subheadings for their reports.**