

Dear Teacher,

The following tools are additional support to enrich the teaching of the *Heads Up* lesson plan and student article “Questions About Drugs—Answers From Scientists.”

- 1A) Suggested Answers and Tiered Adaptations of Lesson Critical-Thinking Questions
- 1B) Suggested Answers for Student Work Sheet
- 2) Academic and Domain-Specific Vocabulary Lists
- 3) Expanded Writing Prompts
- 4) Expanded Paired-Text Reading Suggestions
- 5) Expanded Grades 6–12 Standards Chart

For copies of the Teacher’s Guide and student article, visit: scholastic.com/headsup/chatday2015/article

Note on Text Complexity: The “Questions About Drugs—Answers From Scientists” student article has a text level optimized for students in grades 7–10. For readers at a lower reading level, a version of the article for grades 4–5 is available at scholastic.com/headsup/chatday2015/leveled.

1A Suggested Answers and Tiered Adaptations of Lesson Critical-Thinking Questions

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Have students use evidence from the text of the article “Questions About Drugs—Answers From Scientists” when responding to the Critical-Thinking Questions. Suggested answers are provided in *italics* after each question.

Question 1:

- **Grades 6–8:** Why can drugs be described as having hidden dangers?
- **Grades 9–10:** Analyze the hidden dangers of three drugs discussed in the article.
- **Grades 11–12:** Analyze the hidden dangers of three drugs discussed in the article and explain the negative consequences that might result from use.

(People who make drugs, such as MDMA, often mix in other drugs and chemicals, so users don’t actually know what drug[s] they are really taking and what additional dangers they are exposing their bodies to. In fact, sometimes what is presented as MDMA has no MDMA in it at all. In drugs such as caffeine, the levels in common beverages are generally safe, but teens might

not know that increased doses of the drug in powder form, though a seemingly small measurement, can be enough to cause fast and erratic heartbeat, seizures, and even death. Also, the health effects and dangers of marijuana are not often understood, especially in teens who are more susceptible to addiction and might not realize when they are experiencing withdrawal.

Additional Information for Grades 11–12: *Teens who don’t find out about the risks of these drugs could be more inclined to use them and suffer serious health consequences. This could affect their ability to succeed academically, which could detract from their career options in the future.)*

Question 2:

- **Grades 6–8:** How does the name of a drug affect how people feel about it? Why might that be dangerous? Cite examples from the article.
- **Grades 9–10:** How are drugs marketed through their names, and why might that be dangerous? Cite examples from the article.
- **Grades 11–12:** Analyze how drugs are marketed through their slang names and how that could pose dangers to teens.

(Nicknames such as Ecstasy and Molly [for MDMA] make the drugs sound fun and also distract from the fact that they are mind-altering chemicals that can pose real dangers. MDMA affects areas of the brain that help control body temperature. The drug can cause the body to overheat to such an extreme that serious heart and kidney problems can result. Spice/K2 is also a dangerous drug with names that sound harmless, but these chemicals can cause extreme reactions, such as hallucinations, paranoia, and heart problems. Spice is also marketed as “fake marijuana,” which may prompt teens to expect the same health effects and risks, but, in fact, these are different drugs with different dangers.

Additional Information for Grades 11–12: *Nicknames such as Ecstasy and Molly, aside from making MDMA sound carefree and safe, also deter teens from understanding the actual chemicals present in the drug.)*

Question 3:

- **Grades 6–8:** Why is it important that information about drugs comes from a scientific and trustworthy source?
- **Grades 9–10:** Why is it crucial that information about drugs comes from a reliable source with scientific credentials?
- **Grades 11–12:** Articulate why it is vital that information about drugs comes from a reliable source with scientific credentials.

(There are many inaccurate sources of information about drugs—trusting these sources can lead someone to make deadly choices. Teens who rely on the Internet and their friends for information rather than an accurate and trustworthy scientific source could be putting themselves in danger of repercussions, such as overdoses, addiction, and withdrawal. For example, if teens believe that marijuana is not addictive and they do not realize that teens are particularly susceptible to marijuana addiction, they may make choices they regret. Teens who educate themselves about the dangers of drugs that are passed around at parties can spare themselves scary health consequences, such as serious heart problems from MDMA. Scientific sources, such as NIDA, provide current and accurate information. Paying attention to this information can save your life.)

1B Suggested Answers for Student Work Sheet

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Question A: What does it mean to say that there is no single universal worst drug but, at the same time, any drug can be the “worst” for a particular individual?

(A drug’s effects depend on age, genetics, and life experiences. Depending on these factors, a drug can affect a particular individual differently, making him or her more or less susceptible to addiction and negative health effects. A particular drug that destroys someone’s life was the “worst” for that person specifically—even though it wouldn’t necessarily be the “worst” for someone else, so there is no single worst drug.)

Question B: Why can’t comparing the dangers from using different drugs be reliable when trying to figure out which drug is the overall “worst”?

(Depending on how the word “worst” is defined, different drugs might be considered the “worst.” For example, if you were to define the “worst” as the drug that has the highest level of addiction, it would be

heroin, cigarettes, and cocaine. If you were to define it as the drug that leads to the most deaths, it would be tobacco. However, these statistics are from populations at large. For someone who died from caffeine powder, for example, it doesn’t matter that tobacco kills more people overall. For each individual, the “worst” drug will vary based on that individual’s genetics, age, and life experience. Another way of looking at it is that there is no single “overall worst” drug, but rather many drugs with different types of dangers.)

2 Academic and Domain-Specific Vocabulary Lists

scholastic.com/headsup/chatday2015/article

The vocabulary words on the following page are drawn from the “Questions About Drugs—Answers From Scientists” student article and work sheet. This vocabulary can be previewed with students prior to reading or reinforced with students afterward. Encourage students to incorporate these words into their writing and discussion of the “Questions About Drugs—Answers From Scientists” article and work sheet.

Leveled definitions are provided for grades 6–8 and 9–12. Unless otherwise noted, all definitions below are sourced or adapted from:

- **Grades 6–8:** *Wordsmyth Children’s Dictionary, Scholastic Pocket Dictionary, and Merriam-Webster WordCentral for Kids*
- **Grades 9–12:** *Merriam-Webster Collegiate Dictionary*

Suggested methods of learning and reinforcement:

Students can construct understanding by drawing the words’ definitions; organizing concept maps that include word parts, synonyms, antonyms, and examples; composing memory aids that explain the words or use them in a meaningful context; and employing the words to create newspaper articles, stories, or poems.

Tip: The vocabulary sheet that follows can be folded in half and reproduced for distribution to students. The blank part of the paper can be used for students to record notes or questions.

Vocabulary From “Questions About Drugs—Answers From Scientists”

Grades 6–8

- **addictive** (*adjective*): habit-forming, causing an irresistible need. People who suffer from drug addiction have trouble stopping their drug use even when they really want to and even after it causes terrible consequences to their health and other parts of their lives. This is because addiction is a disease that changes how the brain works.
- **disorientation** (*noun*): loss of one’s sense of direction; a feeling of being lost or confused
- **erratic** (*adjective*): not following a regular pattern. *An erratic heartbeat does not follow a consistent rhythm.*
- **impair** (*verb*): to lessen the strength or ability of; damage
- **overdose** (*noun*): a quantity of a drug so large that it can kill you or make you seriously ill
- **psychotic** (*adjective*): having or relating to a serious mental illness that makes you act strangely or believe things that are not true
- **receptors** (*noun*): a part of a cell that recognizes and joins to specific molecules causing a certain activity within the cell to begin. In the context of the brain, receptors can be activated by chemicals that occur naturally in the body or by the chemicals in medicine or drugs, causing someone to feel or act in a particular way.
- **THC** (*noun*): the primary ingredient in marijuana. THC stands for delta-9-tetrahydrocannabinol. It is this chemical that changes how the brain works, distorting how the mind perceives the world. With regular use, THC can impact teens’ ability to learn and even lower their IQs. It can also impair driving ability.
- **universal** (*adjective*): something that is shared by everyone or everything
- **withdrawal** (*noun*): the group of often painful physical and emotional symptoms that occur when use of an addicting drug is stopped

Vocabulary From “Questions About Drugs—Answers From Scientists”

Grades 9–12

- **addictive** (*adjective*): habit-forming, causing an irresistible need. People who suffer from drug addiction have trouble stopping their drug use even when they really want to and even after it causes terrible consequences to their health and other parts of their lives. This is because addiction is a disease that changes how the brain works.
- **disorientation** (*noun*): loss of one’s sense of direction, position, or relationship with one’s surroundings
- **erratic** (*adjective*): characterized by lack of consistency, regularity, or uniformity. *Caffeine powder can cause a fast and erratic heartbeat.*
- **impair** (*verb*): to damage or make worse
- **overdose** (*noun*): an excessive quantity or amount, usually of a drug or medicine, which can result in dangerous health consequences or death
- **psychotic** (*adjective*): having a serious mental illness characterized by defective or lost contact with reality. It can include delusions (a belief that is not true), hallucinations (an image, sound, or smell that seems real but does not exist), and disorganized speech and behavior.
- **receptors** (*noun*): a molecule on the surface or inside of a cell that recognizes and joins to other specific molecules, causing a certain activity within the cell to begin. In the context of the brain, receptors can be activated by chemicals that occur naturally in the body or by the chemicals in medicine or drugs, causing someone to feel or act in a particular way.
- **THC** (*noun*): the chief intoxicant in marijuana. THC stands for delta-9-tetrahydrocannabinol. It is this chemical that changes how the brain works, distorting how the mind perceives the world. With regular use, THC can impact teens’ ability to learn and even lower their IQs. It can also impair driving ability.
- **universal** (*adjective*): present or occurring everywhere; comprehensively broad
- **withdrawal** (*noun*): the syndrome of often painful physical and psychological symptoms that follows no longer taking an addicting drug

3

Expanded Writing Prompts for “Questions About Drugs—Answers From Scientists”

scholastic.com/headsup/chatday2015/article

To encourage and assess close reading of the student article “Questions About Drugs—Answers From Scientists,” use the following writing prompts for quick five-minute “freewrites” of a few sentences each. Instruct students to include evidence from the text in their responses.

Writing Prompts for Grades 6–8:

- How would you convince a friend or loved one to stop using tobacco? In your response, synthesize information from two relevant Q&As in the text.
- Why is it important that teens ask questions before making decisions about drugs?

Writing Prompts for Grades 9–10:

- What are the risks of marijuana for teens? Synthesize evidence from two relevant Q&As in the text and infer what real-life consequences might result.
- Write a short, persuasive paragraph to convince a friend that using caffeine powder as a study aid is not worth the risk. Cite evidence from the text.

Writing Prompts for Grades 11–12:

- What questions would you ask drug scientists if you had the opportunity? Research answers on teens.drugabuse.gov/drug-facts and include them in your response.
- Using two specific drugs from the article, analyze how each drug’s health effects could directly result in negative consequences to a person’s future.

4

Expanded Paired-Text Reading Suggestions for “Questions About Drugs—Answers From Scientists”

scholastic.com/headsup/chatday2015/article

Deepen student learning of “Questions About Drugs—Answers From Scientists” with the following paired-text reading suggestions and prompts for writing and discussion.

Informational Text: “Real Teens Ask: How Can I Help?” teens.drugabuse.gov/blog/post/real-teens-ask-how-can-i-help

Grades 6–12:

- **Writing Prompt for Grades 6–8:** Determine the authors’ purposes in writing “Real Teens Ask: How Can I Help?” and “Questions About Drugs—Answers From Scientists.” Why might the authors recommend a teen read both articles together?
- **Writing Prompt for Grades 9–12:** By synthesizing information from both “Real Teens Ask: How Can I Help?” and “Questions About Drugs—Answers From Scientists,” develop a plan of action for how to help a friend struggling with drugs.

Informational Text: “Marijuana: Breaking Down the Buzz” headsup.scholastic.com/teachers/lesson-marijuana-breaking-down-the-buzz

Grades 6–12:

- **Writing Prompt for Grades 6–8:** Using the articles “Marijuana: Breaking Down the Buzz” and “Questions About Drugs—Answers From Scientists,” describe two common misconceptions that some teens have about marijuana. Then explain the facts.
- **Writing Prompt for Grades 9–12:** Using evidence from the articles “Marijuana: Breaking Down the Buzz” and “Questions About Drugs—Answers From Scientists,” infer how people might view marijuana in the next 10 to 20 years.

Informational Text: “Have You Seen Molly?” teens.drugabuse.gov/blog/post/have-you-seen-molly-even-if-you-think-so-you-may-have-been-fooled

Grades 6–12:

- **Writing Prompt for Grades 6–8:** Using evidence from the articles “Have You Seen Molly?” and “Questions About Drugs—Answers From Scientists,” craft a persuasive argument convincing a friend not to try Molly.
- **Writing Prompt for Grades 9–12:** Based on the information about Molly and MDMA in both “Have You Seen Molly?” and “Questions About Drugs—Answers From Scientists,” come up with a public service announcement (PSA) ad to replace the flyer discussed in “Have You Seen Molly?”

5 **Expanded Grades 6–12 Standards Chart**
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The “Questions About Drugs—Answers From Scientists” article, lesson plan, work sheet, and Additional Tools document support higher standards by giving students opportunities to practice key literacy skills while acquiring scientific knowledge relevant to health, life skills, and current events.

Subject	Common Core State Standards for English Language Arts	Next Generation Science Standards	National Science Education Standards	National Council for the Social Studies
<ul style="list-style-type: none"> • Science Literacy • English Language Arts • Health/ Life Skills • Current Events 	<ul style="list-style-type: none"> • RI.1 & RST.1 Cite textual evidence • RI.2 & RST.2 Central idea and details • W.1 Write arguments • W.2 Write informative texts • W.7 Synthesize multiple texts when writing • W.9 Use evidence in analytical writing • RST.4 Domain-specific vocabulary • RST.6 Author's purpose 	<ul style="list-style-type: none"> • LS1.A Structure and Function • LS1.D Information Processing 	<ul style="list-style-type: none"> • Structure and Function in Living Things • Personal and Community Health 	<ul style="list-style-type: none"> • Individual Development and Identity