

Heads Up: Real News About Drugs and Your Body

Brought to you by Scholastic and the scientists at the National Institute on Drug Abuse,
National Institutes of Health, U.S. Department of Health and Human Services

LESSONS & WORK SHEETS INSIDE:

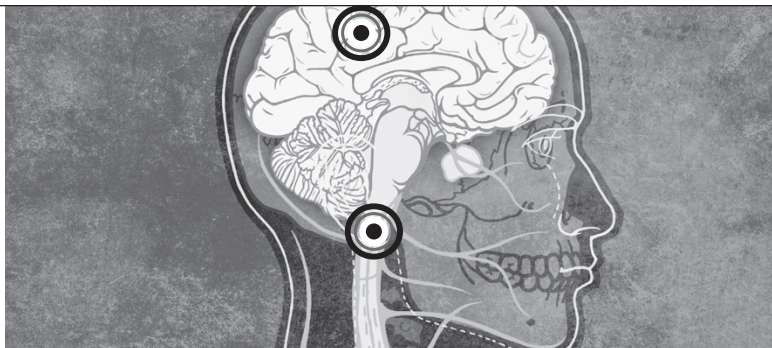
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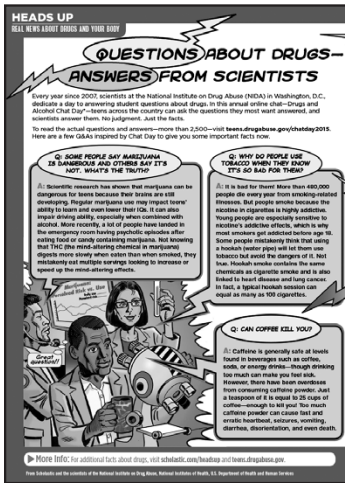
➔ **Paired Reading**

➔ **Vocabulary Support**

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- For this Heads Up **Teacher Edition Compilation** refer to **NIH Pub No. 16-DA-8023**.
- For the accompanying Heads Up **Student Edition Compilation** refer to **NIH Pub No. 16-DA-8022**.



HEADS UP

REAL NEWS ABOUT DRUGS AND YOUR BODY

Questions About Drugs—Answers From Scientists

As a teacher, you know your students have questions about drugs. While the Internet and their peers may provide answers (accurate—or not), it is crucial that teens learn the facts about drugs from a reliable scientific source. Drug and Alcohol Chat Day, an annual live online chat between students and scientists at the National Institute on Drug Abuse (NIDA), helps serve this need. This article and lesson on some of Chat Day's most popular Q&As can help students find unbiased, scientific answers to their questions about drugs and health.



SUBJECT	COMMON CORE STATE STANDARDS	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 Sciences Current Events 	<ul style="list-style-type: none"> RI.1 Cite textual evidence RI.2 Central idea and details W.1 Write arguments 	<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

Critical-Thinking Questions:

1. Why can drugs be described as having hidden dangers? Cite examples from the article. (*People who make drugs often mix in other drugs and chemicals, so users don't actually know what drug[s] they are really taking.*)
2. How are drugs marketed through their names, and why might that be dangerous? Cite examples from the article. (*Nicknames like Ecstasy and Molly [for MDMA] make the drugs sound fun and also distract from the fact that they are mind-altering chemicals that pose real dangers.*)
3. Why is it important that information about drugs comes from a scientific and trustworthy source? (*There are many inaccurate sources of information about drugs—trusting these sources can lead someone to make deadly choices. Scientific sources like NIDA provide current and accurate information. Paying attention to this information can save your life.*)

Additional Tools for Lesson:

- Visit scholastic.com/headsup/chat-day-tools for grade-tiered resources that support teaching this lesson and article:
- Expanded Answer Key for Critical-Thinking Questions and Work Sheet
 - Tiered Adaptations of Critical-Thinking Questions
 - Academic and Domain-Specific Vocabulary Lists
 - Additional Writing Prompts
 - Expanded Paired-Text Reading Suggestions
 - Expanded Standards Charts for Grades 6–12

Resources and Support:

- Teaching resources and drug info: headsup.scholastic.com/teachers and teens.drugabuse.gov
- "Drug Facts": teens.drugabuse.gov/drug-facts
- To locate a treatment center: 1-800-622-HELP or findtreatment.samhsa.gov

Writing Prompts:

- **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.
- **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.
- **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.

Paired Reading:

- **Grades 6–12:** "Real Teens Ask: How Can I Help?" teens.drugabuse.gov/blog/post/real-teens-ask-how-can-i-help
- **Grades 6–12:** "Marijuana: Breaking Down the Buzz," headsup.scholastic.com/teachers/lesson-marijuana-breaking-down-the-buzz
- **Grades 6–12:** "Have You Seen Molly?" teens.drugabuse.gov/blog/post/have-you-seen-molly-even-if-you-think-so-you-may-have-been-fooled

Additional Sources:

- **Website:** National Drug Facts Week®, January 25–31, 2016, teens.drugabuse.gov/national-drug-facts-week
- **Interactive Website:** "Drugs + Your Body: It Isn't Pretty," scholastic.com/drugs-and-your-body
- **Videos:** headsup.scholastic.com/students/video-collection

STUDENT WORK SHEET: The work sheet on the reverse side gives students an opportunity to synthesize facts about different drug dangers. See the "Additional Tools" document for guidelines and answers on how to evaluate student responses.

Drugs: What's the "Worst"?

Every year during Drug Facts Chat Day, teens ask, "What is the worst drug?" Different scientists may give different answers, but they all agree that the answer depends on what you mean by "worst."

For example, "worst" can be the drug(s) that causes the most deaths, or one that leads to the most emergency room visits, or that has the highest rate of addiction. You could also measure "worst" by how many people a drug holds back from living up to their potential by causing a drop in school performance.

And the "worst" drug for one person can be different than the "worst" drug for another, since a drug's effects depend on age, genetics, and life experiences.

Review the facts in the table and use them to respond to the scenario that follows.



TYPE OF DANGER	DRUG FACT
Emergency Room Visits	The three drugs most often mentioned in emergency room visits related to drug use are cocaine, marijuana, and prescription drugs.
Addiction	The drugs that have the highest risk for addiction are heroin, cigarettes, and cocaine.
Overall Deaths	Tobacco use is the leading cause of preventable death in the United States—causing almost half a million deaths each year, many of them from cancer.
Overdose Deaths	52 percent of drug overdose deaths in the United States are related to prescription drugs.
Car Crashes	A 2009 study found that 18 percent of drivers killed in an accident tested positive for at least one drug.

THINK ABOUT IT: Weighing the "Worst" Drug

Scenario: Some of your friends are convinced that to fit in with the "cool" crowd they need to try drugs. But they want to avoid the "worst" drugs. To help convince your friends that any drug can be someone's own personal "worst," you've decided to write an article for your school paper. **Choose one** of the questions below and incorporate at least **three** factual pieces of evidence from above. *Bonus:* Gather additional evidence from the article "Teen Questions About Drugs—Answers From Scientists" as well as the Drug Facts Chat Day transcript at teens.drugabuse.gov/chatday2015.

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

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"?



HEADS UP

REAL NEWS ABOUT DRUGS AND YOUR BODY

The Science of Decision Making and Peer Pressure

One of the biggest challenges teens face is standing up to peer pressure. This article helps explain why by describing the science of how the developing teen brain reacts to both rewards and peers. We build on this understanding by highlighting teen risk taking when driving with passengers. Together, this article and lesson will help your students understand how their brains make decisions, the influence of their peers on those decisions, and what they can do to better navigate peer-pressure situations.



SUBJECT	COMMON CORE STATE STANDARDS	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 	<ul style="list-style-type: none"> RI.1 Cite textual evidence RI.2 Central idea and details W.1 Write arguments 	<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

Critical-Thinking Questions:

- Why do teens have a stronger emotional reaction to their peers than adults or children do? Cite examples from the article. *(During adolescence, the reward center of teens' brains has more dopamine receptors and is more likely to react strongly to the positive feelings produced by being around peers. Rejection by peers causes a bigger response in the areas of teens' brains that govern negative emotions.)*
- What are two pieces of evidence from the article that suggest that teens make riskier decisions when they are with their friends than when they are alone? *(In Steinberg's study, the teen drivers ran more yellow lights when their friends were watching than when they were alone. Teen drivers engage in riskier behavior if other teens are in the car.)*

Writing Prompts:

- Grades 6–8:** The decision-making process in teens is strongly affected by rewards and peers. How might this impact teens in both positive and negative ways?
- Grades 9–10:** Peer pressure can challenge teens to take beneficial risks, or it can drive them to make decisions they regret. How can teens prepare themselves to resist negative peer pressure yet remain open to positive influences?
- Grades 11–12:** Today's teens don't interact only in person. How do you think peer interaction through social media and texting might impact teens' decision making, and what positive and negative consequences could result? Consider what you have learned about how the presence of teens can impact risky behavior.

Paired Reading:

- Grades 6–12:** "6 Tactful Tips for Resisting Peer Pressure to Use Drugs and Alcohol," teens.drugabuse.gov/blog/category/340
- Grades 6–12:** "Let's Talk: How Do You Avoid Peer Pressure?" teens.drugabuse.gov/blog/post/lets-talk-how-do-you-avoid-peer-pressure
- Grades 6–12:** "Teen Brain, a Work in Progress," teens.drugabuse.gov/blog/post/teen-brain-work-progress

Additional Sources:

- Interactive Website:** "Peer Pressure," thecoolspot.gov/pressures.aspx
- Interactive Website:** "The Right to Resist," thecoolspot.gov/right_to_resist.aspx
- Poster/Teaching Guide:** "Facts on Drugs: Teen Guide to Making Smart Decisions," headsip.scholastic.com/guide-smart-decisions

Additional Tools for Lesson

Visit scholastic.com/headsip/science-peer-pressure for grade-tiered resources that support teaching this lesson and article:

- Expanded Answer Key for Critical-Thinking and Work Sheet
- Tiered Adaptations of Critical-Thinking Questions
- Academic and Domain-Specific Vocabulary Lists
- Additional Writing Prompts
- Expanded Paired-Text Reading Suggestions
- Expanded Standards Charts for Grades 6–12

Resources and Support

- Teaching resources: headsip.scholastic.com/teachers and teens.drugabuse.gov

STUDENT WORK SHEET: The work sheet on the reverse side gives students an opportunity to take what they learned from the article and apply it to a real-life peer-pressure situation they might face. An answer key is included in the "Additional Tools" document.

What Should You Say?



Peers can play a big role in how teens make decisions, in both positive and negative ways. Psychologist Laurence Steinberg says one way to make smarter decisions is to have a plan before you encounter a situation where you may feel pressured by your peers to make a poor choice. Complete the activity below to practice making a plan to help you make good decisions when facing peer pressure.



Directions:

Step 1: Read the scenario below.

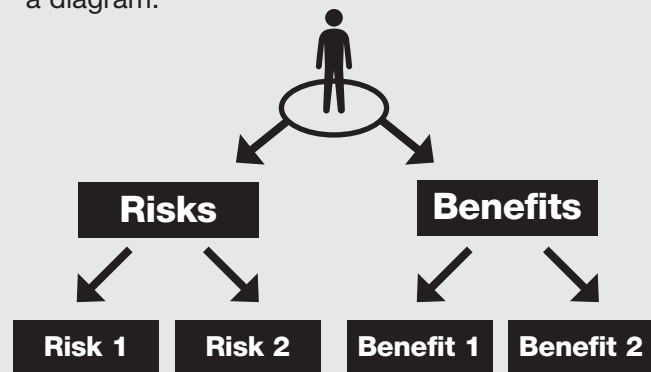
Scenario: Jesse is having a blast at a school football game. Then a friend texts and invites Jesse and his friends over to his house after the game because his parents are out of town. Jesse's friends want to go and are pressuring him to come along. Jesse knows that unsupervised parties are not okay with his parents, and they are expecting him to come home from the game. But he is struggling to make the right decision.

Step 2: Write a paragraph that explains why it may be difficult for Jesse to say no and what strategies he can use to help him stand up to peer pressure. Use facts from the article "The Science of Decision Making and Peer Pressure" to support your response.

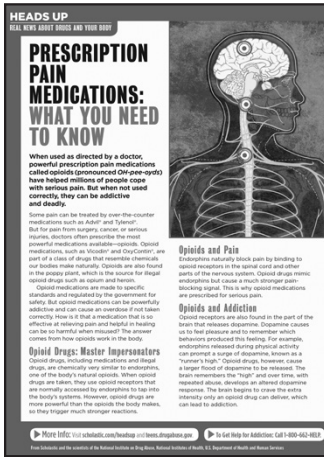
Consider the following questions:

- *What are the possible risks associated with Jesse going along with his friends?*
- *What are the possible benefits of him going along with his friends?*
- *How do the risks compare with the benefits?*
- *What strategies could Jesse use to help him make decisions when faced with peer pressure?*

TIP: You can weigh risks and benefits using a diagram.



Step 3—Reality Check: Write a few sentences that you would actually say in a similar situation to help you stand up to peer pressure.



HEADS UP

REAL NEWS ABOUT DRUGS AND YOUR BODY

Prescription Pain Medications: What You Need to Know

Statistics show that the abuse of prescription opioids—a type of pain medication—is a serious problem in the United States. In 2015, 4.4 percent of high school seniors reported using the prescription opioid Vicodin® for nonmedical reasons. More Americans die every year from overdosing on prescription opioids than die from illicit drugs such as cocaine or heroin. This article explains the risks of opioid pain medications and how opioids work in the body, and gives students advice about precautions that can lower their risk of addiction and overdose.



SUBJECT	COMMON CORE STATE STANDARDS	NEXT GENERATION SCIENCE STANDARDS	NATIONAL SCIENCE EDUCATION STANDARDS
<ul style="list-style-type: none"> Science Literacy English Language Arts Health/Life Skills Math (Graphs and Statistics) 	<ul style="list-style-type: none"> RST.7 Integrate information from a text and graph W.9 Draw evidence to support analysis and reflection 	<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

Critical-Thinking Questions:

1. Explain how opioid medications work in the brain. How are they different from natural endorphins in the brain? (*Prescription opioids have a similar structure to endorphins, a type of chemical in the brain that blocks pain and contributes to feelings of pleasure and relaxation. Opioid medications act on the same receptors in the brain, brain stem, spinal cord, and other parts of the nervous system as endorphins do. These medications, however, have a stronger effect than endorphins; they are capable of blocking severe pain and flooding the brain's reward center with large amounts of dopamine, which puts a person at risk for addiction. If too much is taken, these drugs can cause a person to stop breathing.*)
2. What are three examples of prescription opioid misuse and/or abuse? Cite evidence from the article. (*Taking medication that was prescribed to anyone other than yourself; taking medication at higher doses than was prescribed; taking medication not to treat pain but to experience a "high."*)
3. Why might abuse of prescription opioids lead a person to start using heroin? (*Prescription opioid pain medications and heroin are both opioids and therefore have similar effects on the body. If a person becomes addicted to prescription opioids, he or she may start taking heroin to achieve the same result.*)

Writing Prompts:

- **Grades 6–8:** What are the risks of misusing prescription opioid pain medications? Use evidence from the article to support your answer.
- **Grades 9–10:** Use evidence from the article to explain why prescription drug abuse is as dangerous to your health as illegal drug abuse.

- **Grades 11–12:** How is dependence different from addiction?

Paired Reading:

- **Grades 6–12:** “Mind Over Matter: Opioids” teens.drugabuse.gov/educators/nida-teaching-guides/mind-over-matter-teaching-guide-and-series/opioids
- **Grades 6–12:** “Straight Talk on Prescription Drugs” headsup.scholastic.com/students/straight-talk-on-prescription-drugs
- **Grades 6–12:** “Prescription Stimulants” headsup.scholastic.com/students/prescription-stimulants

Additional Sources:

- **Website:** teens.drugabuse.gov/drug-facts/opioids-and-pain-relievers
- **Videos:** headsup.scholastic.com/students/video-collection

Additional Tools for Lesson

Visit scholastic.com/headsup/opioids/tools for grade-tiered resources that support teaching this lesson and article:

- Expanded Answer Key for Critical-Thinking Questions and Work Sheet
- Tiered Adaptations of Critical-Thinking Questions
- Academic and Domain-Specific Vocabulary Lists
- Additional Writing Prompts
- Expanded Paired-Text Reading Suggestions
- Expanded Standards Charts for Grades 6–12

Resources and Support

- Teaching resources: headsup.scholastic.com/teachers and teens.drugabuse.gov

STUDENT WORK SHEET: The skills sheet on the reverse side has students analyze data regarding opioid prescriptions and overdose deaths from these medications. Critical-thinking questions help them link the data to what they learned in the article. See the “Additional Tools” document (details in gray box above) for guidelines and answers on how to evaluate student responses.

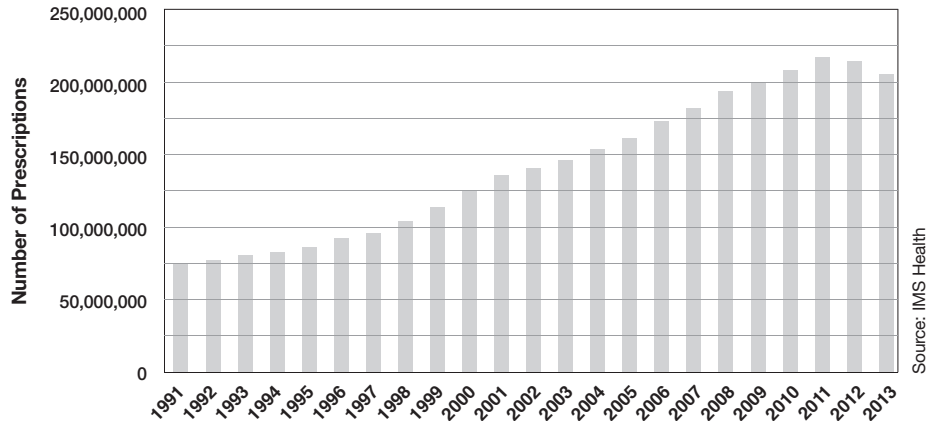
Prescription Opioid Use and Abuse

If a person takes too much of a prescription opioid, it can lead to a potentially deadly overdose. In recent years, public health officials have observed that the number of deaths caused by overdoses on opioid drugs is on the rise. What is causing this alarming increase? Some scientists see a relationship between the increasing number of overdose deaths and the rising number of prescriptions given during the past decade. Complete the activity below to analyze recent trends in opioid use and abuse.

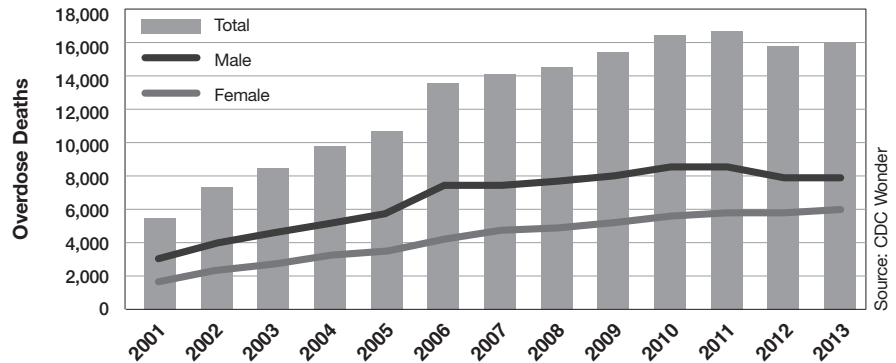
Directions:

Study the graphs on the right. Then use the data and the information in the article “Prescription Pain Medications: What You Need to Know” to answer the questions that follow.

Number of Opioid Prescriptions



Overdose Deaths From Prescription Opioids



Think It Through:

1. Roughly how many more prescriptions for opioids were given out by pharmacies in the U.S. in 2013 compared with 1991?
2. Approximately how many more people died from prescription opioid overdoses in 2013 than 2001?
3. Use data from the second graph to describe how the number of prescription opioid overdose deaths has changed over time for both men and women.
4. What evidence suggests that the number of opioid prescriptions could be linked to the number of overdose deaths? Use evidence from the graphs and the article to explain your answer.
5. Many scientists are urging the medical community to improve the way prescription opioids are prescribed. That may include using other, less powerful medications more often. Do you agree with this recommendation? What factors might scientists and doctors be considering? Use evidence from the graphs and from the article to support your answer.

Lesson Critical-Thinking Questions

scholastic.com/headsup/chatday2015

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.)

Student Work Sheet

scholastic.com/headsup/chatday2015/worksheet

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.)

Insert

2

SUGGESTED ANSWERS:

“The Science of Decision Making and Peer Pressure”

Lesson Critical-Thinking Questions

scholastic.com/headsup/science-peer-pressure/lesson

Have students use evidence from the text of the article “The Science of Decision Making and Peer Pressure” when responding to the Critical-Thinking Questions. Suggested answers are provided in *italics* after each question.

Question 1:

- **Grades 6–8:** How is the reward center of the brain different in adolescents than it is in adults?
- **Grades 9–10:** Why do teens have a stronger emotional reaction to their peers than adults or children do? Cite examples from the article.
- **Grades 11–12:** Why do teens have a stronger emotional reaction to their peers than adults or children do? What is one way this reaction to peers may positively affect the way a teen acts? What is one potential negative result?

(During adolescence, the reward center in the teen brain has more dopamine receptors. Dopamine is a chemical that is released when a person has a positive experience. It makes people feel rewarded and happy. Because there are more receptors for the chemical in the teen brain, an adolescent will have a stronger reaction to rewards. This includes the positive feelings produced by being around peers. The part of the brain that reacts to negative experiences is also more sensitive in adolescents than in adults. That means that rejection by peers causes a bigger negative emotional response in the teen brain.)

(Additional Information for Grades 11–12: The strong emotional response experienced by teens when around peers may cause them to seek out the approval of their peers and to avoid actions that would lead to disapproval. This may propel teens to do positive things, such as trying out for a play if a friend asks them to even though they are nervous. It also may cause them to give in to peer pressure and make dangerous decisions about drugs and alcohol in order to receive the approval of peers.)

Question 2:

- **Grades 6–8:** How is the driving behavior of teens affected by the presence of their peers?
- **Grades 9–10:** What are two pieces of evidence from the article that suggest that teens make riskier decisions when they are with their friends than when they are alone?
- **Grades 11–12:** What evidence from the article suggests that teens make riskier decisions when they are with their friends than when they are alone? Is the risky behavior due to explicit peer pressure or not? Support your answer with evidence from the text.

(continued on next page)

(In Steinberg’s study, teens playing a driving video game ran more yellow lights, risking an accident, when their friends were watching than when they were alone. When the teens were alone, they took no more risks than adults. In real life, teen drivers engage in riskier behavior if other teens are in the car. Driving statistics also show that teens are 2.5 times more likely to take risks when there is another teen passenger and three times more likely to take risks if two or more peers are in the car.)

(Additional Information for Grades 11–12: *The teen drivers in Steinberg’s experiment made riskier decisions even when their friends were not talking to them. This means that their decision making wasn’t caused by their peers explicitly telling them to take risks. Instead, Steinberg says that the presence of friends increased the teens’ sensation of rewards. That increased their desire to get more rewards—such as earning money in the game or the excitement of driving faster.)*

Student Work Sheet

scholastic.com/headsup/science-peer-pressure/worksheet

Step 2: Write a paragraph that explains why it may be difficult for Jesse to say no and what strategies he can use to help him stand up to peer pressure. Use facts from the article “The Science of Decision Making and Peer Pressure” to support your response.

(Jesse is spending time with his peers, which activates the reward center in his brain. This reaction is particularly strong in the adolescent brain. He would like to stay with his friends so he can continue feeling happy. The desire to continue feeling rewarded and happy may cause Jesse to be less sensitive to the potential risks of going to the party, such as disappointing his parents and being punished, or being exposed to potentially dangerous situations at the party that may involve alcohol or drugs. Jesse may also be afraid that his friends will be angry or disapproving if he doesn’t go. That rejection would cause a strong response in the part of the brain that controls negative emotions, so Jesse would want to avoid that bad feeling. The potential benefits of having fun with his friends at the party and getting their approval, as well as avoiding their rejection, may seem stronger than the potential risks. To avoid making a risky decision, Jesse could pause and remove himself from the situation for a moment to think through the potential risks. This may help him to make the more responsible decision and go home to avoid consequences from his parents.)

Step 3—Reality Check: Write a few sentences that you would actually say in a similar situation to help you stand up to peer pressure.

(Jesse could say: “Thanks for the invite, but I need to get home. If I’m not home after the game, I’ll get grounded forever. Besides, it’s just not my scene.”)

Insert

3

SUGGESTED ANSWERS:

“Prescription Pain Medications: What You Need to Know”

Lesson Critical-Thinking Questions

scholastic.com/headsup/opioids

Have students use evidence from the text of the article “Prescription Pain Medications: What You Need to Know” when responding to the Critical-Thinking Questions. Suggested answers are provided in italics after each question.

Question 1:

- **Grades 6–8:** Explain three reactions that can happen in the body when a person takes opioids.
- **Grades 9–10:** Explain how opioid medications work in the brain. How are they different from natural endorphins in the brain? Cite evidence from the text.
- **Grades 11–12:** Explain how misusing prescription opioids could lead to addiction.

(Prescription opioids have a similar structure to endorphins, a type of chemical in the brain and body that blocks pain and contributes to feelings of pleasure and relaxation. Opioid medications act on the same receptors in the brain, brain stem, spinal cord, and other parts of the nervous system as endorphins do. When a person takes opioid drugs (medications or illegal drugs), it activates the reward system and causes feelings of pleasure, affects signals in the brain stem that slow breathing and cause relaxation, and reduces pain by acting on receptors in the spinal cord. Opioid medications and drugs, however, have a stronger effect than endorphins; they are capable of blocking severe pain and flooding the brain’s reward center with large amounts of dopamine, which puts a person at risk for addiction. If too much is taken, these drugs can cause a person to stop breathing.)

(Additional Information for Grades 11–12: *Misusing prescription opioids could cause a person to develop physical dependence, so he or she experiences*

withdrawal symptoms if he or she stops using the opioids. This could lead to further opioid misuse and the development of habitual drug taking. If the habit of drug taking becomes strong enough, addiction can develop, and the person will continue to take drugs despite negative consequences.)

Question 2:

- **Grades 6–8:** What is the risk of misusing opioid medicines?
- **Grades 9–10:** What are three examples of prescription opioid misuse and/or abuse? Cite evidence from the article.
- **Grades 11–12:** Why do you think it's important to have programs to take back unused pills from opioid prescriptions? Support your answer with evidence from the text.

(Examples of opioid misuse are taking medication that was prescribed to anyone other than yourself, taking medication at higher doses than was prescribed, and taking medication not to treat pain but to experience a high. If a person takes too much of an opioid drug, it can lead to a deadly overdose by causing the person to stop breathing. Misusing the drugs can increase the risk of dependence and addiction.)

(Additional Information for Grades 11–12: Having unused prescriptions around makes it easier for people to misuse them either accidentally or intentionally.)

Question 3:

- **Grades 6–10:** Explain how a person could become physically dependent on an opioid drug, and how this impacts a person's body.
- **Grades 11–12:** Why might abuse of prescription opioids lead a person to start using heroin?

(If a person takes an opioid medication for a long time, his or her body can develop a tolerance to the drug, meaning he or she needs to take more of the drug to achieve the same result. Long-term use can also cause the body to produce fewer endorphins and opioid receptors. This is called physical dependence. The result is that when people go off the drug, they experience withdrawal symptoms.)

(Additional Information for Grades 11–12: If a person becomes addicted to opioids, he or she may seek out any way possible to satisfy his or her cravings for the drugs. Prescription opioid pain medications and heroin are both opioids and therefore have similar effects on the body. If a person becomes addicted to prescription opioids, he or she may start taking heroin to satisfy his or her craving for opioids and avoid withdrawal.)

Student Work Sheet

scholastic.com/headsup/opioids/worksheet

1. Roughly how many more prescriptions for opioids were given out by pharmacies in the U.S. in 2013 compared with 1991? (*Roughly 206,000,000 in 2013, minus 75,000,000 in 1991 = 131,000,000 more prescriptions in 2013.*)
2. Approximately how many more people died from prescription opioid overdoses in 2013 than 2001? (*Roughly 16,000 in 2013, minus 5,500 in 2001 = 10,500 more deaths in 2013.*)
3. Use data from the second graph to describe how the number of prescription opioid overdose deaths has changed over time for both men and women. (*The number of opioid overdose deaths has increased in both men and women between 2001 and 2013. In the last few years, the numbers of deaths of men has dropped slightly.*)
4. What evidence suggests that the number of opioid prescriptions could be linked to the number of overdose deaths? Use evidence from the graphs and the article "Prescription Pain Medications: What You Need to Know" to explain your answer. (*The number of opioid overdose deaths has increased at the same time as the number of prescriptions of these drugs has increased. Misusing these medications increases a person's risk of overdose and addiction. If there are more prescriptions for opioids, there are a greater number of people using them, and thus a greater number at risk for misusing them and overdosing.*)
5. Many scientists are urging the medical community to improve the way prescription opioids are prescribed. That may include using other, less-powerful medications more often. Do you agree with this recommendation? What factors might scientists and doctors be considering? Use evidence from the graphs and from the article to support your answer. (*Answers will vary but may include that the number of opioid overdose deaths has increased in recent years. At the same time, the number of prescriptions of these drugs has increased. Opioids are very powerful, which makes them an important tool for treating patients' severe pain, but these drugs have a high risk for addiction. If they are used less often, there may be fewer people who become addicted to them or who have an overdose. Doctors should only prescribe them when there is no other alternative. Doctors should closely monitor people who are taking them to make sure abuse is not occurring.*)

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