### Time Wasted: Effects of Alcohol Use

**OBJECTIVES:** The students will be able to:

- Recognize and evaluate the influence of expectations on the decision to consume alcohol
- Identify the physical, mental, social, emotional, and legal implications of underage consumption of alcohol
- Discuss the short and long-term effects of alcohol use on the development of the teenage brain and body
- Analyze the effects of binge drinking
- Discuss the negative effect of underage drinking on achieving goals
- Demonstrate peer-refusal skills in situations involving alcohol

#### **ACTIVITIES:**

- 1. Half a Mind
- 2. Consequences of Underage Drinking
- 3. You've Been Played
- 4. Face the Consequences

#### **PA STANDARDS:**

10.3.9 C. Analyze and apply strategies to avoid or manage conflict and violence during adolescence.

- effective negotiation
- assertive behavior

10.2.12 D. Examine and apply a decision-making process to the development of short and long-term health goals.

LEARNING TARGET: Explore the physical and psychological effects of alcohol on the body and brain.



In your Group:

Why should we spend time talking about alcohol use with High School Students?

List reasons below:

NAME:
-------

CLASS PERIOD:

### 1. "Half of Mind" Video Segment (Dr. Aaron White: Effects of alcohol on adolescent brain.)

Question: Which part of the brain did Dr. White say is affected the MOST by underage drinking?

Too Good - Lesson 6: Effects of Alcohol Use Anatomy of the Teenage Brain
Review the diagram of the human brain and the effect alcohol use has on the various functions of the brain. Prefrontal Cortex: Controls executive functions including judgment, social control, decision-making, emotions, & senses. Alcohol impairs your ability to think clearly and lowers Cerebellum: Alcohol slows down your to lose your balance. Hypothalamus: Controls heart rate. Alcohol slows down your heart rate. Medulla Oblongata: Controls breathing and maintains body temperature. Alcohol depresses Hippocampus: respiratory function. Binge drinking can shut down the Medulla and Controls memory. Alcohol causes memory loss and blackouts. Alcohol can impact your ability to learn. lead to a coma. You've Been Played You have 5 minutes to list songs that mention alcohol. The songs may reference a specific brand, drinking in general, getting drunk, alcoholism, or engaging in activities that involve drinking. If you don't know the song title, write down the lyrics. Only use appropriate language in your list. If the lyrics contain inappropriate language, leave the offending word(s) out. lits All Relativa onsequences. Collect tour scenario cards that depict the same alcohol related Academic Physical **Financial** 

Neurological

Social

**Consequences for Others** 

List one of your goals that you'd like to	o obtain by the time you graduate from high school.
Name 10 negative consequences of und	lerage drinking.
1	6
2	7
3	
4	9
5	
While considering the above statement,	s of drinking alcohol, some teenagers still choose to drink. choose 4 words to use to complete the following cohol, they expect alcohol to make them feel"
1	3
2	4
Big Idea Question: Some people are drawn to alcohol by a these expectations do not factor in the T create these <u>false</u> expectations.	positive expectation of what alcohol will do for them. However, TRUE consequences of using alcohol. List 4 things that may help
1	3
2	4

**3.** 

As you can see, what we see on TV, in movies/shows, social media, and actions of other people around us contribute to our expectations. Remember...YOU must assume ownership and accountability to YOURSELF, because ultimately YOU are responsible for the choices that YOU make! Are your expectations influenced by the messages you are exposed to in the media or things that you see in society?

# LESSON 6B

### Time Wasted: Binge Drinking

**OBJECTIVES:** The students will be able to:

- Recognize and evaluate the influence of expectations on the decision to consume alcohol
- Identify the physical, mental, social, emotional, and legal implications of underage consumption of alcohol
- Discuss the short and long-term effects of alcohol use on the development of the teenage brain and body
- Analyze the effects of binge drinking
- Discuss the negative effect of underage drinking on achieving goals
- Demonstrate peer-refusal skills in situations involving alcohol

### **ACTIVITIES:**

- 5. Half a Mind
- 6. Consequences of Underage Drinking
- 7. You've Been Played
- 8. Face the Consequences

#### **PA STANDARDS:**

10.3.9 C. Analyze and apply strategies to avoid or manage conflict and violence during adolescence.

- effective negotiation
- assertive behavior

10.2.12 D. Examine and apply a decision-making process to the development of short and long-term health goals. **LEARNING TARGET:** Examine how drinking patterns may lead to drinking habits and the correlation between genetics and alcoholism. Risks of binge drinking.



How would you differentiate between alcohol?
Use, Misuse and Abuse

### Vocabulary

	** <del>***********************************</del>
Binge Drinking	consuming large quantities of alcohol in a single session,
	usually <b>defined</b> as five or more drinks at one time for a man,
	or four for a woman. BAL above a 08



### PART 1

After reading "Alcohol and Your Brain," complete the blank diagram of the brain. Place the correct label from the list below in each region of the brain:

• Central Nervous System

Cerebral Cortex

Cerebellum

• Hypothalamus

• Medulla

Hippocampus

6.

5.

PART 2



### **Brain function:**

- Memory
- Coordinating everyday movement
- Sending signals through the body
- Breathing
- Heart rate
- Decision-making

### **Effect of Alcohol:**

3.

- Loss of balance
- Slow movement
- Act without thinking
- Coma (a lot of alcohol at one time)

2.

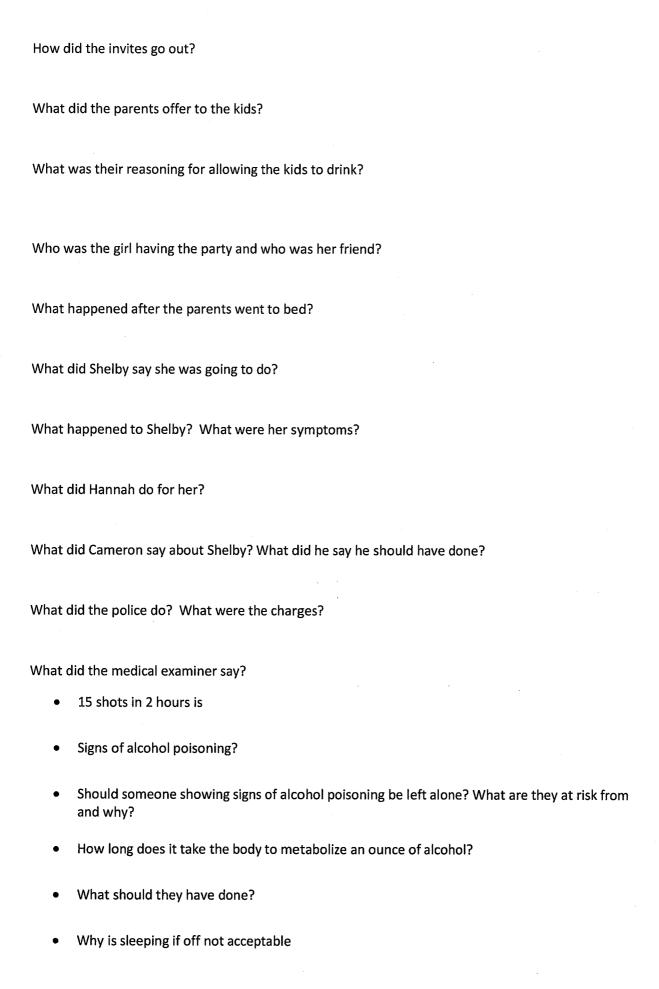
- Difficulty learning (long-term alcohol abuse)
- Increase in hunger

To the right are descriptions of some functions of the brain along with some effects of alcohol. Write each

description in the area of the brain in which it occurs.

Fast Fact

Research suggests that a young person's brain is more sensitive to some of alcohol's harmful effects because it is still developing.



Alcoholic					
Problem Drinker					
Social Drinker					

### Vaporware: Effects of Nicotine on the Brain and Body

### **OBJECTIVES:** The students will be able to:

- · Identify various forms of nicotine products
- · Define tolerance, addiction and withdrawal
- · Discuss the stages of addiction and the associated behaviors of each stage
- Identify short-term, long-term and social consequences of nicotine use
- Apply peer-refusal skills to situations involving nicotine

#### **ACTIVITIES:**

- 9. Smoke Screen
- 10. Addiction Depiction
- 11. Peer Influence
- 12. How did I get here?
- 13. Vaping video

#### **PA STANDARDS:**

- 10.1.12 D. Evaluate issues relating to the use/non-use of drugs.
- 10.2.12 D. Examine and apply a decision-making process to the development of short and long-term health goals.

LEARNING TARGET: The highly addictive chemical, nicotine can be harmful to the body in all forms.



With a partner discuss everything you know about vaping?

Do all vape products have nicotine?



### **Stages of Addiction**

The table below charts the stages of drug use that lead to addiction.

### Stage One:

### Experimental Use

During the Experimental Use stage, a person tries a drug for the first time. This first use is typically in a social setting, like a party, where the drug is available. The user impulsively tries the drug without considering the potential negative effects or consequences.

### Stage Three:

#### Problem Use

At this stage, the user makes plans to obtain the drug. Normal behavior changes and most activities are organized around the next opportunity to use the drug. Getting and using the drug is more important than all other interests, including relationships.

### Stage Two:

#### Regular Use

During the Regular Use stage, drug use becomes a part of everyday life. At this stage, the user develops a tolerance to the drug. The Regular User begins to spend more time with friends who use the drug and spend less time with friends who don't use.

#### Stage Four:

#### Drug Addiction and Dependency

At this stage, the addiction and cravings are intense. The user will be uncomfortable or agitated if forced to go even a brief time without the substance. By now, the user cannot face daily life without using the drug. The drug is the first thing the user thinks of in the morning and the last thing they think about before falling asleep. The user may deny there is any problem of abuse.

Review the stages of drug use to determine which stage each user is experiencing in the scenarios below.

Halfway through freshman year, Andre's friends begin to notice smoking cigarettes has become more important
to Andre than hanging out with them. He's always thinking about and planning for his next nicotine fix. He spends
a lot of his money on cigarettes, and he won't go to someone's house if he can't smoke there.

Andre is i	n Addiction Stage:
others not do	was hanging out with some classmates Saturday. At some point, one of the friends started vaping, and the joined in. Dawn had never used nicotine before, but she started feeling uncomfortable being the only one ing it. She decided just once couldn't hurt anything, so she asked someone if she could try. Dawn took ff and started to feel sick and her heart started to race.
Dawn is i	n Addiction Stage:
of his c	s been using smokeless tobacco for a little while. He's started hanging out with people who dip instead other friends. Dante has noticed he has to use more in order to feed his nicotine craving. He is now using imes a day.
Dante is i	n Addiction Stage:

4. Steven has been using nicotine for almost a year. He can't make it through the school day without using nicotine. It is the first thing he thinks of when he wakes up in the morning. When he is in class, he's irritable and watches the clock for the bell to ring. As soon as the bell rings, he runs off campus for a quick fix of nicotine before his next class. His need for nicotine is urgent and impossible for him to ignore.

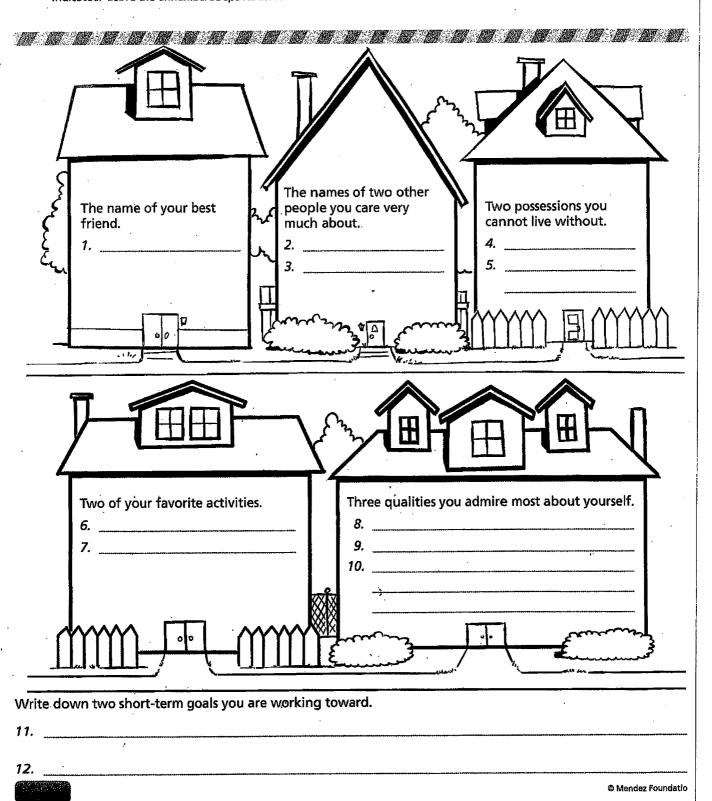
Steven is in Addiction Stage:



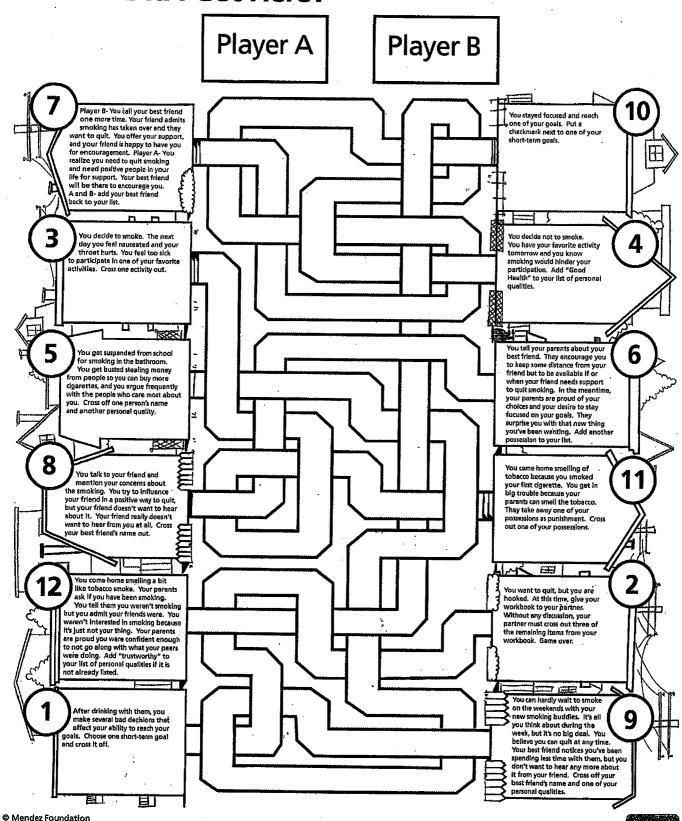


Taking Inventory

Think about the positive people and positive things in your life. Fill in the numbered blanks below with the information indicated. Leave the unnumbered spaces blank until instructed.

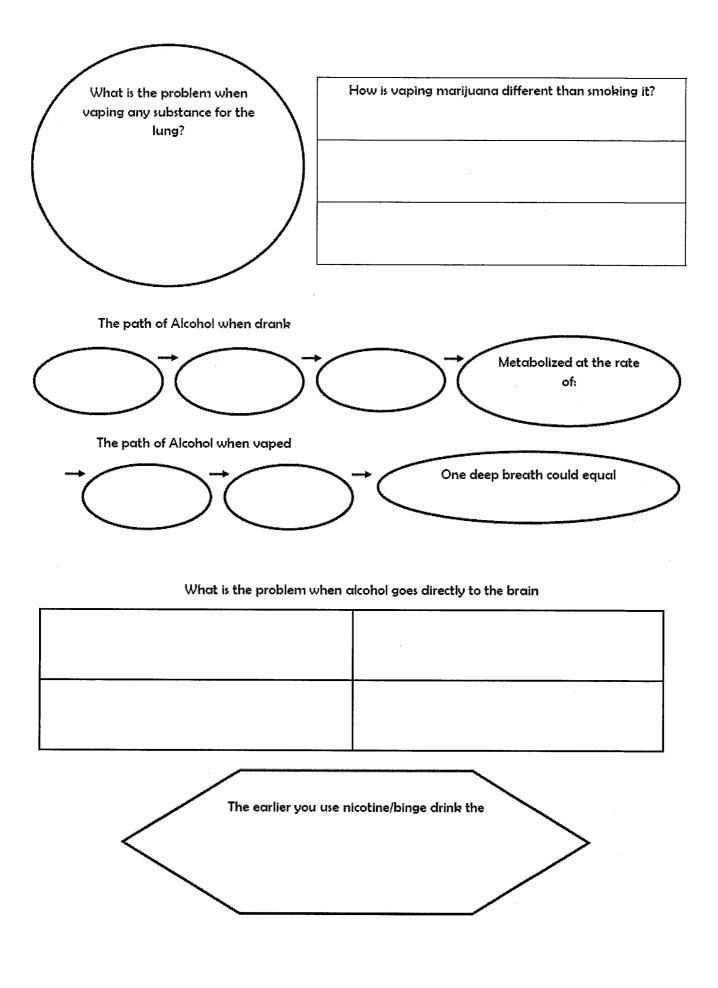


### How Did I Get Here?



### Vaping: More Dangerous Than You Think

	Vaping:
What is an E-cigarette?	With E-Cigarettes
	Why do kids think this type of device is safe?
(118	
Who are these companies marketing to?  How?	
Marketers know kids are susceptible to:	Once you start
	smoking E-Cigarettes you are
The most addicting chemical is:	
And is as addicting than	
	The Vaped substance goes from The
	and to theseconds
What Nicotine does	to the body
	·
Nicotine in It	s purest form is



### Truth or Consequences? - Effects of Marijuana Use

### **OBJECTIVES:** The students will be able to:

- · Discuss the physical, mental, social and emotional consequences of marijuana use
- Discuss the misperceptions of marijuana and its use
- Examine the effects of marijuana on the body, particularly on brain function
- Evaluate the impact of marijuana impairment of goals, activities and occupations
- Discuss the psychological addiction aspects of marijuana use

#### **ACTIVITIES:**

- 14. Clearing the Air
- 15. Fact Check
- 16. Arrested Development
- 17. Rank (if time)
- 18. Marijuana Worksheet Think it Through and Consider the Source

#### **PA STANDARDS:**

- 10.1.12 D. Evaluate issues relating to the use/non-use of drugs.
- 10.2.12 D. Examine and apply a decision-making process to the development of short and long-term health goals.

LEARNING TARGET: Analyze the misconceptions and the negative effects of marijuana use.



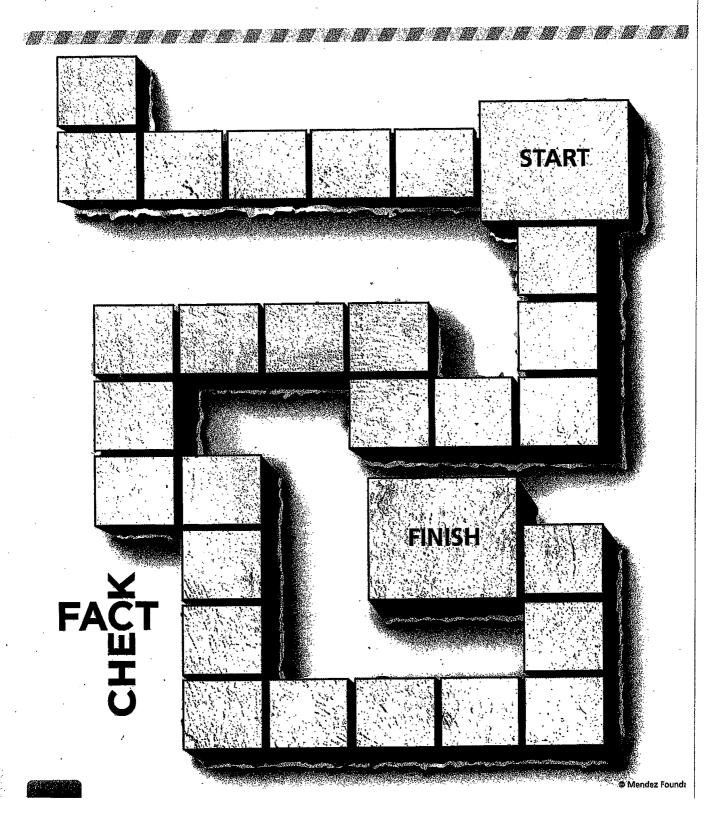
List 2 reasons that people support legalizing use of marijuana

List 2 reasons that people DO NOT support legalizing use of marijuana



### Fact Check

Show what you know about the facts of marijuana use. Be the first to the finish line by differentiating fact from fiction.





### **Effects of THC on the Brain**

The diagram below identifies some of the areas of the brain that have high levels of cannabinoid receptors. The table to the right of the diagram explains what each area of the brain regulates and how this area is affected by THC. Review the diagram and the table and use them to answer the questions that follow.

Basal Ganglia	Neocortex	Area of the Brain	What it Regulates	Effects of THC
		Neocortex	Conscious Thought, Spatial Reasoning, Sensory Perception	Altered Thinking, Impaired Judgment
especial and a second		Basal Ganglia	Initiate Movement	Slowed Reaction Time, Reduced Motor Activity
	\ \ -	Hypothalamus	Hunger and Thirst	Increased Appetite
		Amygdala	Emotions, Emotional Behavior, Motivation	Causes Panic and Reduced Motivation
Hypothalamus		Hippocampus	Formation of New Memories, Memory Storage and Recall	Makes it Harder to Learn and Recall Information
Amygdala / Hippocampus	Cerebellum	Spinal Cord	Pathway of Messages Between the Body and Brain	Altered Sensitivity to Pain
	Spinal Cord	Cerebellum	Balance, Posture, Coordination	Impaired Coordination

Area of the Brain	What it Regulates	Effects of THC	
Neocortex	Conscious Thought, Spatial Reasoning, Sensory Perception	Altered Thinking, Impaired Judgment	
Basal Ganglia	Inițiate Movement	Slowed Reaction Time, Reduced Motor Activity	
Hypothalamus	Hunger and Thirst	Increased Appetite	
Amygdala	Emotions, Emotional Behavior, Motivation	Causes Panic and Reduced Motivation	
Hippocampus	Formation of New Memories, Memory Storage and Recall	Makes it Harder to Learn and Recall Information	
Spinal Cord	Pathway of Messages Between the Body and Brain	Altered Sensitivity to Pain	
Cerebellum	Balance, Posture, Coordination	Impaired Coordination	

1.	Which areas of the brain are useful when you are preparing for the SAT?				
	How could marijuana use affect a person's performance on the SAT?				
2.	Which areas of the brain are necessary to safely drive a vehicle?				
	How could marijuana use affect a person's ability to drive a vehicle safely?				
3.	How could marijuana use affect a person's relationships with their friends or family?				



### **Goal Post**

Write a personal goal in the space below. Then, list two negative effects of marijuana use that could interfere with you reaching your goal.

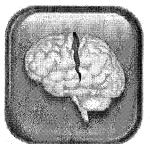
Negative Effects of Marijuana Use on My Goal	:	
Personal Goal:		
		A

1.	***************************************
2.	





### Marijuana Facts



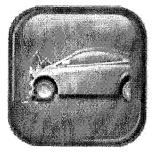
FACT: Marijuana is addictive.

Delta-9-tetrahydrocannabinol (THC) is the main active ingredient in marijuana. It stimulates brain cells to release the chemical dopamine, artificially causing a feeling of pleasure. The "high" feeling it creates is one of the reasons some people use it again and again, which can lead to addiction. And the younger you start, the higher your risk for addiction. About one in six teenagers who smoke marijuana will become addicted.

### FACT: Marijuana use can negatively affect your performance in school and athletics.

THC affects many parts of the brain, including those that control memory and movement. Marijuana users may experience the following:

- problems with learning and memory
- distorted perceptions (sight, sound, time, touch)
- impaired motor coordination
- increased heart rate
- loss of interest and motivation



FACT: Driving under the influence of marijuana is dangerous.

Safe driving involves good concentration, judgment, and reaction time. Safe drivers must also be alert and have good coordination. Smoking marijuana—and mixing it with even small amounts of alcohol—negatively affects all of these necessary skills. In fact, up to 14 percent of the drivers who die in car accidents have marijuana or both marijuana and alcohol in their bloodstreams.

Think It Through: Considering the scientific facts above, study the following scenarios. Look for marijuana myths and answer the questions on separate paper. Apply facts regarding the dangers present in each situation.

- 1. Two members of a high school football team are nervous before a big game. A friend gives them a joint and tells them it will help them calm down before the game. What are the risks involved for these two teammates? What about the team as a whole?
- 2. A young man wants to smoke marijuana with his date before going to a movie. He tells her it will "open her mind" and enhance her understanding of the film. He will be driving her home afterward. What do the facts tell you about the dangers involved in this scenario?
- 3. A study group gets together to prepare for an important test. During a study break, one member pulls out a joint and offers to share it with anyone who wants to join her. What do the facts tells you about the risks?

### Consider the Source

A fact can be verified with data. An opinion is a personal judgment based on the knowledge or beliefs the person has at that point in time. Can opinions be trusted? It depends on the source.

Learn more by reading the following statements and then answer the questions below each statement. Decide whether the source of information is reliable or unreliable, and then circle the correct answer at the end of each statement. Finally, answer the "Think It



Through" question at the bottom of the page. Use separate paper as needed.

1.	. "Marijuana is not addictive."					
	Source: High school stude to a friend	nt offering marijuana				
	a) Is the above statement r     opinion?	•				
	b) Where might this studenther information?					
	c) What do you think is the statement?					
	Source Reliable	Source Unreliable				
2.	"One in six people who start smoking marijuana in their teens become addicted." Source: The National Institute on Drug Abuse					
	a) Is the above statement most likely fact or opinion?					
	b) Where did the information most likely come from?					
	c) What do you think is the statement?	• •				
	Source Reliable	Source Unreliable				
3.	"I'm okay to drive. I only	ant a little stoned				

and had a couple of beers. Besides, if I

don't bring Mom's car home, I'm dead!"

Source: High school student to a friend after

a) Can the above statement be verified as true?

a party

	b) On what kind of information is the student likely basing his or her decision?			
	c) What other factors should the student take into consideration before getting behind the wheel of the car?			
4.	"Marijuana—sometimes in combination with other drugs and alcohol—is found in the bloodstream of up to 14 percent of drivers who die in car accidents."  Source: National Highway Traffic Safety			
	<ul><li>Administration (NHTSA)</li><li>a) Can the above statement be verified as a fact?</li></ul>			
	b) Where did the NHTSA most likely get its information?			
	c) How can knowing this information make a difference for the student wanting to drive home after a party?			

Source Reliable

Source Unreliable

Think It Through: Every day, you are bombarded with information from a variety of sources, including friends, teachers, family, books, TV programs, the Internet, music, and more. Based on the reliability rating activity you just completed, how can you evaluate sources of information in your daily life to determine whether they are based on fact or opinion?

### The Evidence Speaks for Itself: Prescription, OTC and Street Drugs

### **OBJECTIVES:** The students will be able to:

- Differentiate healthy and unhealthy risks and predict their outcomes
- · Incorporate risk management in the Decision-Making Skills
- Compare harmful effects of using prescription and OTC drugs to those of street drugs
- Discuss the addictive and harmful effects of prescription, OTC and street drugs
- Discuss the physical, psychological, social and emotional consequences of use of these drugs
- Differentiate appropriate use and misuse of prescription, OTC and street drugs

#### **ACTIVITIES:**

- 19. Running the Risk
- 20. Prescription, OTC and Street Drugs
- 21. Crime Scene Investigators
- 22. Chasing the Dragon: Video

#### **PA STANDARDS:**

- 10.1.12 D. Evaluate issues relating to the use/non-use of drugs.
- 10.2.12 D. Examine and apply a decision-making process to the development of short and long-term health goals.

LEARNING TARGET: Establish a clear perception of harm of prescription drug abuse and build protection within the student that can mitigate the risk of abuse or accidental misuse.



Define a risk

Why would taking a risk be beneficial?

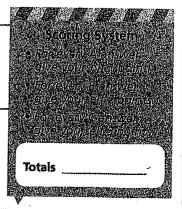


### What's Your Risk-Taking Style?

Read each statement and circle the letter of the action you would take in the situation. Use the Scoring System at the bottom of the page to calculate your answers.

### 1. Your friend wants to go skydiving for his birthday. You...

- A. decline the invitation and watch a movie at home instead.
- B. join the party but stay on the ground to video his amazing descent back to earth.
- C. are the first one out of the plane.
- 2. You have an exam at 8 a.m. tomorrow and a party to attend tonight. You...
  - A. stay home to study.
  - B. attend the party until your curfew and then go home to sleep because you've already studied.
  - C. skip the studying and party until the exam starts.
- 3. You're walking to your friend's house for dinner and you're really late. At the intersection, the crossing signal changes from "Walk" to "Don't Walk". You...
  - A. stop at the hand- always stop at the hand!
  - B. stop and wait. You're late anyway. Plus, you could hustle a bit more once you cross the street.
  - C. sprint across the intersection and hope for the best!
- 4. You're feeling gutsy lately, so you dye your hair a wild color. Then, you remember your very "traditional" grandmother is coming to visit. You...
  - A. immediately dye it back.
  - B. wear a hat to spare your granny's heart and remove it after she leaves.
  - C. add a turquoise streak and declare your right to be an individual.
- 5. You're trying to get to the lodge at the top of the mountain, and there are three routes to choose from. Which route do you take?
  - A. The longest route that follows the well-lit, paved road up the mountain.
  - B. A quicker route that takes you through the woods, but you have to scale bluffs on the side of the mountain.
  - C. The quickest route that crosses a rickety bridge over a deep cariyon.
- 6. Tonight is the school talent show. You are...
  - A. watching safely from the audience.
  - B. waiting backstage to perform a lip sync to your favorite song with your friends.
  - C. backstage eagerly waiting to perform your solo act.
- 7. You are out having a great time with your friends, and they suggest going to grab something to eat. You want to go, but you will probably miss your curfew. You...
  - A. go home immediately. You never miss curfew.
  - B. contact your parents in hopes of securing more time out with your friends.
  - C. think curfew, shmerfew. Pancakes at midnight rule!
- 8. Your friend invites you to go on a summer backpacking trip across a foreign country you know nothing about. You...
  - A. decline the offer and spend the summer watching reruns of your favorite TV show.
  - B. spend time researching the country before giving your friend an answer.
  - C. pack your backpack and tell your parents good-bye.

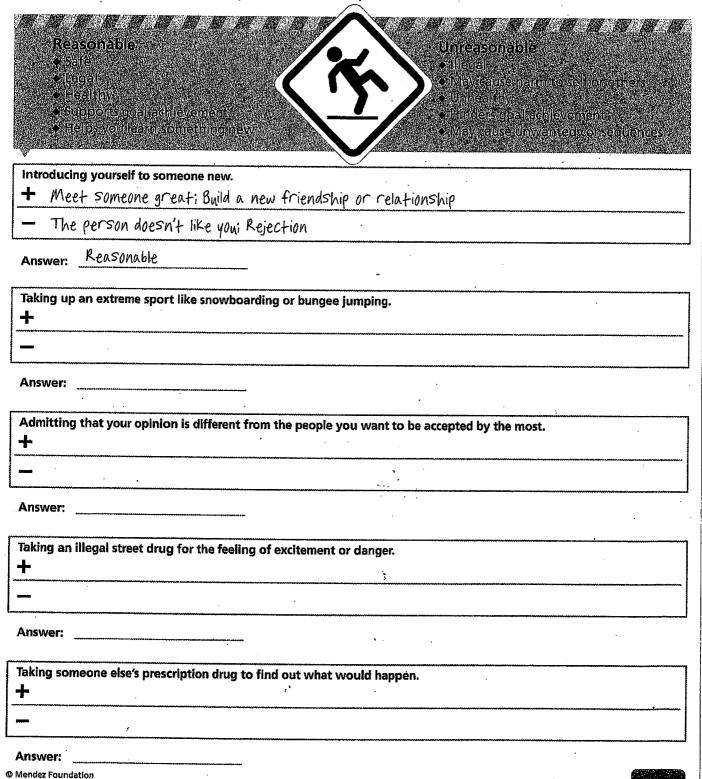






### Run the Risk

Practice calculating risk by identifying the potential benefits and negative consequences for each activity below. Write the benefits under the plus sign and the negative consequences under the minus sign. Then, based on your calculations, determine if the risk is reasonable or not. Write your answer on the line provided.





### **Forensic Files**

Use these charts to help you complete your Drug Identification Report. The first chart outlines the effects of the abuse of street drugs. The second chart outlines the effects of the abuse of prescription and over-the-counter drugs.

	ne Effects of their Ab Cocaine s/ack. coke, snow, plaw		Hergin Smalk skag junk dope
<ul> <li>Anxiety</li> <li>Dry mouth</li> <li>Erratic and violent behavior</li> <li>Hallucinations</li> <li>Increased body temperature</li> <li>Increased energy level</li> <li>Irritability</li> <li>Loss of appetite</li> <li>Severe dental problems</li> <li>Skin sores</li> <li>Sweating</li> </ul>	<ul> <li>Anxiety</li> <li>Dilated pupils</li> <li>Erratic and violent behavior</li> <li>Increased body temperature</li> <li>Increased energy level</li> <li>Irritability</li> <li>Loss of appetite</li> <li>Nausea</li> <li>Panic attacks</li> <li>Sweating</li> <li>Talkativeness</li> </ul>	Blurred vision Dry mouth Hallucinations Increased body temperature Increased energy level Loss of appetite Muscle tension in jaws Nausea Sweating Teeth grinding Urinary retention	<ul> <li>Confusion</li> <li>Decreased respiratory rate</li> <li>Drowsiness</li> <li>Dry mouth</li> <li>Itchy skin</li> <li>Loss of coordination</li> <li>Nausea</li> <li>Slurred speech</li> <li>Suppression of pain</li> <li>Sweating</li> <li>Urinary retention</li> <li>Vomiting</li> <li>Warm flushing of skin</li> </ul>

### Prescription (Rx)/& Over-the-Counter (OTC) Drugs and the Effects of their Abuse

Rx Stimulant Ice glass meth cristal

Rx Pain Reliever www.vikes.mon.billbully beroin

RX Depressants zanies parbs delvries premies Dextromethorphan DXM dexistrip rosei molecc

- Anxiety
- Dilated pupils
- Dry mouth
- Increased body temperature
- Increased energy level
- Irritability
- Loss of appetite
- Sweating
- Talkativeness

- Constipation
- Confusion
- Decreased respiratory rate
- Drowsiness
- Itchy skin
- Nausea
- Slurred speech
- Suppression of pain
- Vomiting

- Confusion
- Decreased respiratory rate
- Dizziness
- Drowsiness
- Loss of coordination
- Impairment of memory and judgment
- Nausea
- Slurred speech
- Urinary retention
- Vomiting

- Blank stare
- Blurred vision
- Confusion
- Dizziness
- Nausea
- Rapid heartbeat
- Slurred speech
- Sweating
- Urinary retention
- Vomiting





### **Forensic Files**

Your forensics team has been assigned to a new case to determine the drug of abuse implicated in a recent crime. Complete the Drug Identification Report on this page to help you review the various pieces of evidence given to you by your teacher. Use the charts on the previous page to help you draw your conclusions. Include your Case File Number on your report.

Drug Identif	ication Report
Didg Identifi	reactor report
Anytown Police Department	Case File #
678 Main St. Hometown, PA 12345	e de la companya del companya de la companya del companya de la co
· · · · · · · · · · · · · · · · · · ·	•
Incident Report	Possible Substances of Abuse:
	1.
	2.
	* 79
	3.
	4.
Evidence #1 Witness Statement #1	Possible Substances of Abuse:
	1.
	2
	3.
Evidence #2 Witness Statement #2	Possible Substances of Abuse:
	1.
	5. 2.
Evidence #3 Crime Scene Image	
	ş'
Conclusion	