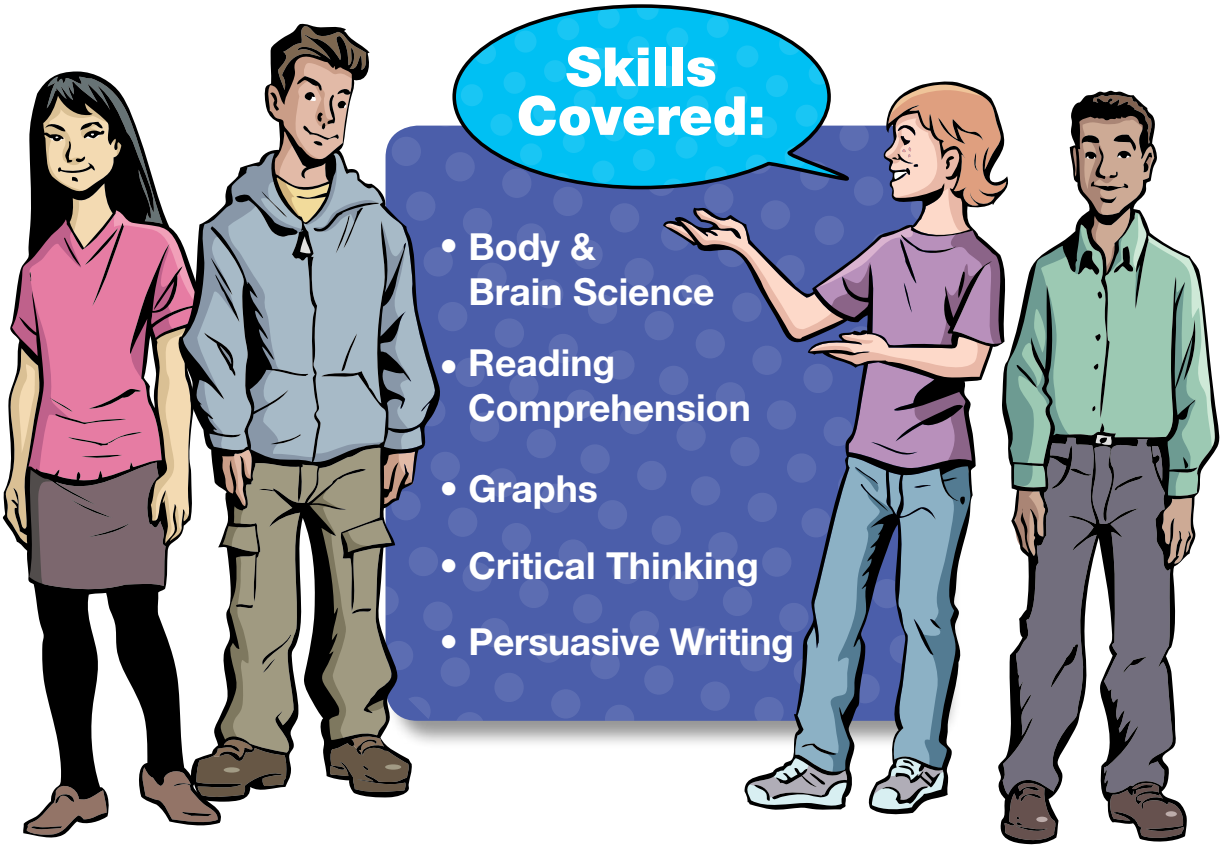
GRADES
5–6

Part
2 of 2

Reach Out Now:

6 *BONUS* Worksheets

HELP PREVENT UNDERAGE ALCOHOL USE



- For free printable copies of the *Reach Out Now* materials, visit:
http://www.toosmarttostart.samhsa.gov/educators/teachin
- For more information about preventing underage alcohol abuse, visit:
http://www.stopalcoholabuse.gov

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
www.samhsa.gov

Worksheet Overviews

(Worksheets below build on information in the separate Teaching Guide lessons.)

Bonus Worksheet 1

Brain Mix-Up

Objective: To reinforce the facts about how alcohol affects different parts of the brain. Give students this diagram to fill out after they have completed the worksheet from Lesson 1, "Alcohol and Your Brain."

Skills covered: Diagram-reading/Reading Comprehension/ Critical Thinking

National Science Education Standards: Form and function • Structure and function in living systems • Regulation and Behavior • Personal Health • Science and technology in society • Risks and benefits

Activity Extension: Students may feel pressure to drink so that they fit in with their peers. Start a classroom discussion about how the effects of alcohol on the brain may actually harm their relationships with peers.

Worksheet Answers: **1.** Cerebral Cortex: Decision-making; Act without thinking; **2.** Cerebellum: Coordinating everyday movement; Loss of balance; **3.** Medulla: Breathing; Coma; **4.** Central Nervous System: Sending signals through the body; Slow movement; **5.** Hypothalamus: Heart rate; Increase in hunger; **6.** Hippocampus: Memory; Difficulty learning

Bonus Worksheet 2

Charting the Consequences

Objective: To reinforce the facts about the harmful effects of alcohol on the body. After reading Lesson 2: "Alcohol and Your Body," give students this worksheet to complete.

Skills covered: Reading Comprehension/Critical Thinking

National Science Education Standards: Form and function • Structure and function in living systems • Regulation and Behavior • Personal Health • Science and technology in society • Risks and benefits

Activity Extension: Because the liver processes alcohol, it is one of the organs that is most affected by alcohol use. Have students research the function of the liver and write a paragraph explaining in detail how alcohol can affect this organ.

Worksheet Answers: **1.** Heart: Short-term: Slowed heart rate; Long-term: High blood pressure; **2.** Kidneys: Short-term: Produce more urine; Long-term: Kidney failure; **3.** Skin: Short-term: Widening blood vessels; Long-term: Worsening acne or puffy skin; **4.** Liver: Short-term: Breaks down alcohol; Long-term: Cirrhosis. **Take It Further!**: Short-term consequences may include getting into fights with friends for no reason, being late for school, forgetting material for a test. Long-term effects may include losing friends because of repeated erratic behavior, difficulty learning new material in school.

Bonus Worksheet 3

Writing Workshop

Objective: To have students think critically about the consequences of underage alcohol use. Have students complete Lesson 3: "Making Smart Choices." Then give them this worksheet to complete.

Skills covered: Critical Thinking/Persuasive Writing/Art

National Science Education Standards: Personal Health • Science and technology in society • Risks and benefits

Activity Extension: Have students work together to come up with their own scenario in which a young person may be offered a drink.

Have them write dialogue for the characters and perform the scenario as a classroom play.

Answers: Answers will vary.

Bonus Worksheet 4

Alcohol Survey

Objective: To have students survey their peers and family members to find out how much they know about the dangers of underage alcohol use.

Skills covered: Graph-reading skills/Math

National Science Education Standards: Science and technology in society • Personal Health • Risks and benefits

Activity Extension: Every year, the National Survey on Drug Use and Health (NSDUH) interviews approximately 70,000 individuals aged 12 or older. Go to *http://www.oas.samhsa.gov/nsduhlatest.htm* to find the latest results on alcohol use. Have students study the data about alcohol use among 12 year olds. What surprises them about the results?

Worksheet Answers: Answers will vary.

Bonus Worksheet 5

Fact Finders

Objective: To understand how alcohol can affect the brain and the body. Have students complete this worksheet after reading Lesson 1: "Alcohol and Your Brain" and Lesson 2: "Alcohol and Your Body."

Skills covered: Reading Comprehension/Critical Thinking

National Science Education Standards:
Form and Function • Structure and function in living systems • Regulation and Behavior • Personal Health • Science and technology in society • Risks and benefits

Activity Extension: Have students study several magazines and write a paragraph discussing how advertisements and tabloid stories about young celebrities may affect a teenager's view of underage drinking.

Worksheet Answers: Answers may vary — refer to the facts on Worksheet 2 in the Teaching Guide: "Alcohol and Your Body" for other possible answers. **1.** Alcohol affects nearly all of the organ systems in the body. Long-term alcohol abuse can cause damage to many organs. **2.** Long-term alcohol abuse can damage the hippocampus, making it difficult to learn. **3.** Long-term alcohol abuse can make acne worse. **4.** Alcohol affects the cerebral cortex, impairing your ability to think clearly and make decisions. **5.** Heavy drinking over a long period of time can damage vital organs like the liver and stomach. Drinking a lot of alcohol at one time can lead to a coma.

Bonus Worksheet 6

The Realities of Binge Drinking

Objective: To learn about the risk of binge drinking, a particularly dangerous alcohol behavior.

Skills covered: Reading Comprehension/Critical Thinking

National Science Education Standards: Personal Health • Science and technology in society • Risks and benefits

Activity Extension: Start a classroom discussion about other positive activities that young people are engaged in that don't involve alcohol. What are some ways that students can interact socially other than at parties that involve alcohol?

Worksheet Answers: **1.** Teens often drink in social situations in which activities such as drinking games encourage heavy use. **2.** Teenagers are smaller than adults, so it takes less alcohol to have the same effect on the body. **3.** Binge drinking can lead to alcohol poisoning, coma, and death. Binge drinking may lead to blackouts.

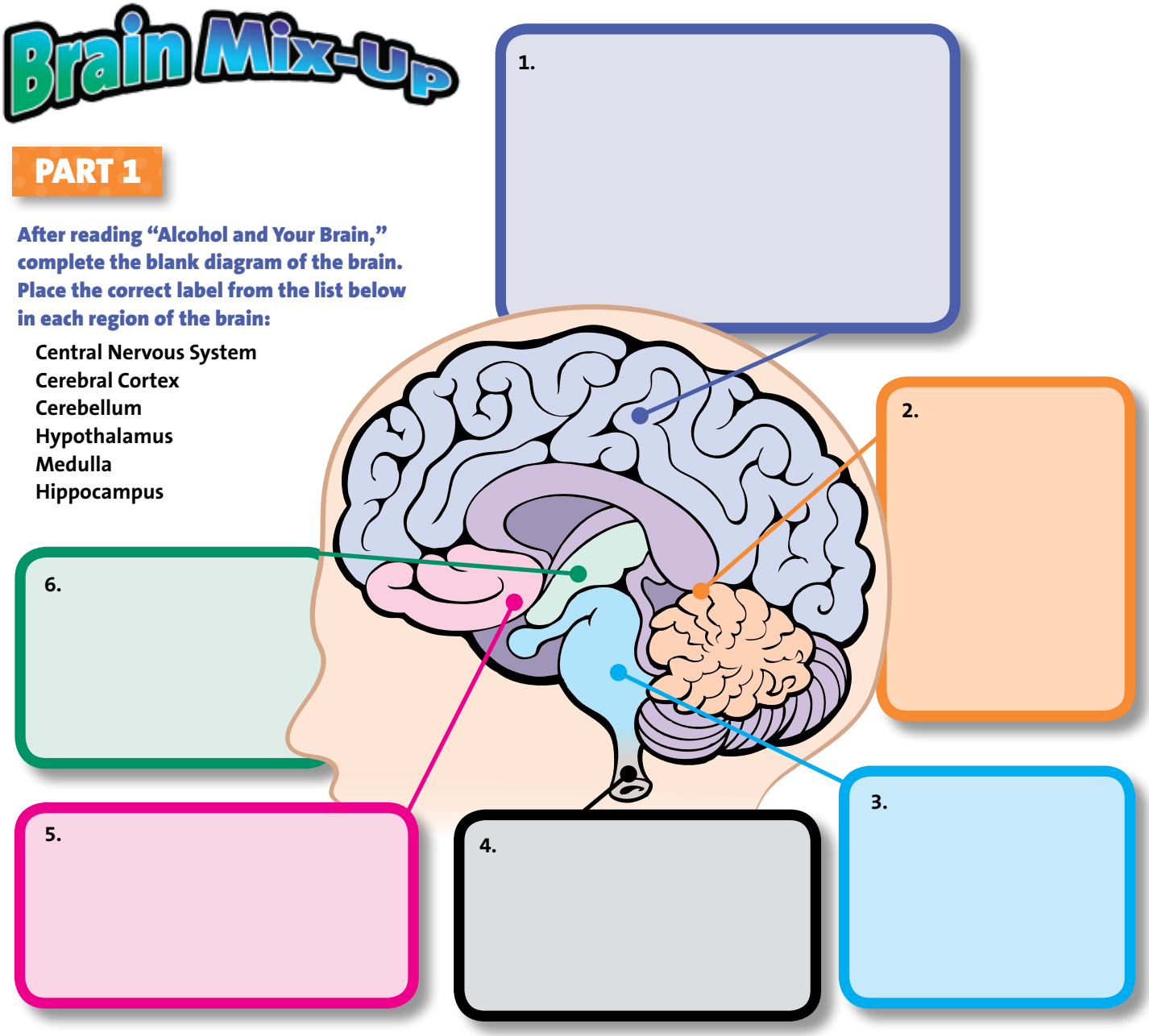
Name:

Brain Mix-Up

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



PART 2

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.

Brain function:

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

Effect of Alcohol:

- Loss of balance
- Slow movement
- Act without thinking
- Coma (a lot of alcohol at one time)
- Difficulty learning (long-term alcohol abuse)
- Increase in hunger

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.

Name: _____

Charting the Consequences

After reading "Alcohol and Your Body," complete the following chart. For each organ, write a possible short- and long-term effect of using alcohol. The first one has been completed for you.

Organ	Possible Short-Term Effect	Possible Long-Term Effect
Stomach	Stomach produces more acid.	Acid damages the lining of the stomach, causing ulcers or stomach cancer.
Heart		
Kidneys		
Skin		
Liver		

Take It Further!

Using alcohol can also affect a person's relationships with friends and family, as well as their performance at school or work. Thinking of this, what are some other possible short- and long-term effects of abusing alcohol?

Name: _____

You've learned about the effects of underage alcohol use on your brain and your body. Imagine that you are an artist writing a story on how a character's decision about alcohol might affect his or her life. Use the blank panels in the comic strip below to finish the story that's been started. Create two different versions of the story—one in which your characters decide to drink alcohol and one in which they decide not to drink alcohol.

Writing Workshop

Two kids are at a party where some older teens are drinking.

Complete the story in which characters **decide to drink alcohol.**

Complete the story in which characters **decide not to drink alcohol.**

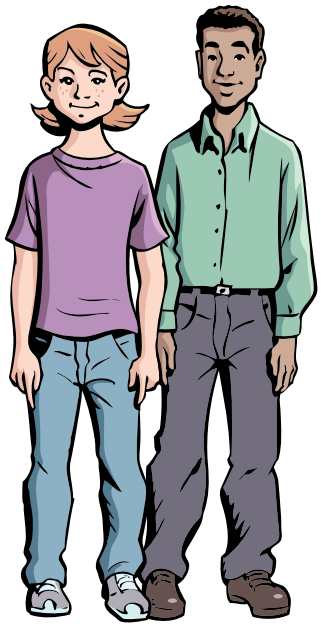
Name: _____

Alcohol Survey

PART 1

Now that you have learned the facts about alcohol use, find out how much your friends and family know about the dangers of underage alcohol use.

Create a survey of 10 true or false questions to give to your friends and family members. The first five questions have been written below. Fill out the rest with your own questions based on the facts you have learned.



1. Long-term alcohol abuse can lead to cancer. (True)
2. A 1.5-ounce glass of liquor has the same amount of alcohol in it as a 12-ounce beer. (True)
3. Long-term alcohol abuse can make acne worse. (True)
4. Alcohol affects every person's body in the same way. (False)
5. Alcohol affects nearly every organ system in the body. (True)
6. _____
7. _____
8. _____
9. _____
10. _____

PART 2

Give your questionnaire to at least 20 people. Below, track the number of questions that each person answers correctly.

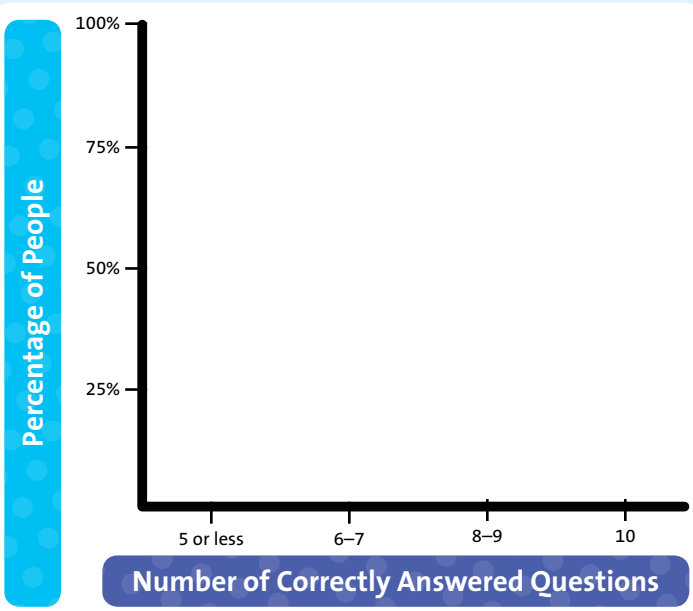
10 questions correct: _____

8–9 questions correct: _____

6–7 questions correct: _____

5 or fewer questions correct: _____

Now calculate the percentage of people who fall into each of the categories and write your answers above. Then, use the graph on the right to create a bar graph that shows the results of your survey.



Take It Further!

Create a graph that shows the difference in the number of questions answered correctly among people of different age groups. To create your graph, group the people into the following age groups: Younger than 15; 15–20; 21–26; older than 26. For each group, graph the average number of correct answers.

Name: _____

Fact Finders

Each of the statements below gives incorrect information about the effects of alcohol on the brain and the body. **Suppose someone said each of the statements below. In the space provided, correct the statement with fact(s):**

1 **"Alcohol doesn't affect vital organs like my brain."**

Correct this statement with fact(s): _____

_____

2 **"Drinking alcohol has no effect on my ability to learn or do well in school."**

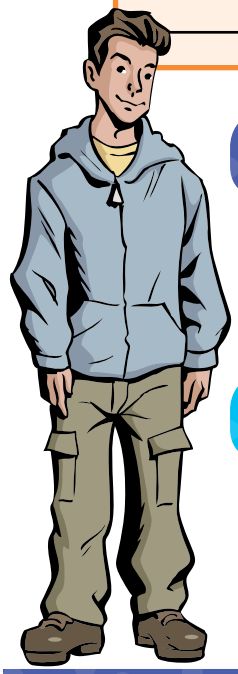
Correct this statement with fact(s): _____

_____

3 **"Alcohol can give you clear skin."**

Correct this statement with fact(s): _____

_____



4 **"Drinking alcohol will make it easier for me to make decisions."**

Correct this statement with fact(s): _____

_____

5 **"Alcohol is bad for the brain and your stomach, but it's pretty harmless besides that."**

Correct this statement with fact(s): _____

_____

Take It Further!

To find out more facts about alcohol, visit *http://www.thecoolspot.gov*

Name: _____

Binge Drinking: No Laughing Matter

In the movies, people who are drinking are often shown throwing up or passing out, usually for humorous effect. These symptoms often occur when someone drinks a lot of alcohol at one time, or engages in **binge drinking**. The realities of binge drinking are, however, no laughing matter.

Binge drinking is defined as "a pattern of drinking alcohol that brings blood alcohol concentration to 0.08 gram percent or above. For the typical adult, this pattern corresponds to consuming 5 or more drinks (male) or 4 or more drinks (female) in about 2 hours."[1]

Binge drinking creates **extreme risks.** The effects of alcohol on the brain may cause a binge drinker to have trouble making decisions, and they may engage in risky behavior. People who binge drink may experience **blackouts** where they can't remember what happened over a period of time. Having too many drinks at one time can also cause **alcohol poisoning**, potentially resulting in a coma or even death.

Since young people weigh less than most adults, it takes less alcohol for them to experience alcohol poisoning. There also are differences between men and women. When a woman drinks, the alcohol in her bloodstream typically reaches a higher level than a man's, even if both are drinking the same amount.[2]

Binge drinking at any age is dangerous. Research has shown that although teenagers don't drink as often as adults, they tend to take part in binge drinking more often than adults.[3]

[1] NIAAA, *Alcohol Alert*, no. 73, October 2007. http://pubs.niaaa.nih.gov/publications/AA73/AA73.htm.

[2] NIAAA, *Alcohol Alert*, no. 62, July 2004. http://pubs.niaaa.nih.gov/publications/AA62/AA62.htm.

[3] U.S. Department of Health and Human Services, *The Surgeon General's Call to Action To Prevent and Reduce Underage Drinking*. U.S. Department of Health and Human Services, Office of the Surgeon General, 2007. http://www.surgeongeneral.gov/topics/underagedrinking/calltoaction.pdf.

The Realities of Binge Drinking

1 Why do you think teenagers may binge drink more often than adults?

_____

_____

_____

2 Why might having several drinks on one occasion affect a teenager differently than it does an adult?

_____

_____

_____

3 What are some of the dangers of binge drinking?

_____

_____

_____

Take It Further! **Create a poster warning teens about the dangers of binge drinking.**

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SAMHSA
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