

# 4<sup>th</sup> Grade

## FCAT Practice Materials

### DRUGS

## Information for Teachers

### BACKGROUND INFORMATION

Scientists have devoted years to studying the effects of drugs on the brain and behavior. In the past 30 years, the advances in understanding the actions of certain chemicals have been substantial. Yet there has been little success in translating that information into a usable form for the public. While there is a wealth of information in the scientific literature about addiction and the effects of drugs, it is not getting to the people who need to know it.

In a recent book published by Duke University Medical Center (*Buzzed* by Kuhn, Swartzwelder and Wilson), the authors make this vivid analogy: “Imagine two trains headed at high speed in different directions, one being the scientific understanding of drug actions and addictions, the other being the public understanding of drug problems. The gap between scientific information and public information is growing hour by hour.” In few other areas of science could this gap be the cause of so much devastation and death.

One of the problems with drugs is the complexity of the organs with which they interact, particularly the brain. While a certain drug may be extremely effective in the operating room or under the careful monitoring of a physician, it can turn deadly if there is one small error affecting heart rate, blood pressure or the amount of oxygen getting to the brain. There is no monitoring of these vital signs in casual drug experimentation.

Good drug education is very difficult. Not only is the information complicated and difficult to find, but it is also a controversial subject. Some people say they don’t want their kids to learn about drugs because it will just make them want to try them. Others rely on information from Web sites that have not been evaluated or checked out by experts. Your opportunity here as a teacher is to help students begin their drug education with correct information about the nature of drugs and the problems drugs may cause.

#### **Key for Identification of Student Practice Pages**

On each page of the student practice materials, symbols have been used for identification. The purpose of these symbols is for teachers to identify the subject area, grade level and topic area.

For example: R4A means reading, fourth grade, alcohol  
S10T means science, tenth grade, tobacco

R = Reading

4 = Fourth Grade

A = Alcohol

W = Writing

5 = Fifth Grade

D = Drugs

M = Mathematics

8 = Eighth Grade

T = Tobacco

S = Science

10 = Tenth Grade

# READING

## DESCRIPTION OF READING SELECTION

This article is part of a series of articles describing the nature of various types of drug and alcohol abuse. The series, *Now You Know*, is written to provide basic information about illicit drugs while introducing students to prevention concepts.

## INSTRUCTIONAL STRATEGIES FOR TEACHERS: PREPARATION FOR READING

*Note: Students may read the selection with no preparation or discussion. However, if you would like to use the selection for instruction with an emphasis on developing reading skills and increasing students understanding of prevention concepts, the following information would be helpful.*

Prior to giving students the reading selection, activate background knowledge by discussing with them the difference between a legal drug that you buy at the drugstore and illegal drugs. While there are people who abuse prescription drugs, most people who take drugs under a doctor's supervision are using the chemical action of the drug to improve their health. There are drugs that fight infections, drugs that block toxins from destroying healthy tissues and drugs that cure diseases caused by bacteria. There are common, over-the-counter drugs, such as aspirin, cough syrup, and antacids that your students' parents have given them to make them better when they are sick. The drugs referred to in the selection are **illegal drugs** or street drugs. They have a variety of names and nicknames. The easiest way for a young person to find out if a drug is illegal or not is to look at who is handing out or selling the drug. If it is a doctor prescribing the drug, it is legal and used for the purpose of improving health. If someone other than a doctor or an adult responsible for your health is offering you a drug, it is probably illegal.

## ANSWERS TO READING SELECTION

1. D LA.A.2.2.1

2. F LA.A.2.2.1

3. B LA.A.2.2.1

4. Top-Score Response

A top-score response will include details about the physical effects of drugs, the dangerous effects of tricking the brain, the physical damage they cause, and the way that drugs can control a person's life.

LA.A.2.2.1

5. G LA.A.2.2.1

## **INSTRUCTIONAL STRATEGIES FOR TEACHERS: FOLLOW-UP TO READING**

Another method of summarizing the points of the reading selection is to ask students to create a poster highlighting a main point or one of the main points of the story. Once they have created their posters, ask them to explain to the class why the point they have selected to illustrate is one of the main points of the reading selection.

# **WRITING**

## **INSTRUCTIONAL STRATEGIES FOR TEACHERS: PREPARATION FOR WRITING**

*Note: Students may respond to the writing prompt with no preparation or discussion. However, if you would like to use the selection for instruction with an emphasis on developing writing skills and increasing student understanding of prevention concepts, the following information would be helpful.*

Self-esteem is a delicate matter. As an adult you know how fragile self-esteem is for some people, while others seem to have plenty of it to get through life. Allowing students an opportunity to write about the things they can do that make them feel good about themselves is an excellent way to reinforce the foundation upon which self-esteem is based. Remind students that they are not bragging or boasting here. It is perfectly fine, and in fact necessary, that people recognize what their good traits and accomplishments are. If you think the students need some help in coming up with different types of things to write about, you can lead a discussion on characteristics and list these on an overhead or the board (i.e., being a good friend, watching out for animals, trying to play fairly in sports, doing your best in school, being a good athlete, having a nice voice, or being the fastest kid in school).

## **INSTRUCTIONAL STRATEGIES FOR TEACHERS: FOLLOW-UP TO WRITING**

Once the students have written their responses, ask them to consider these questions. How many of the students wrote about things that have been recognized by others with an award? For example, if a student said she was a good student, she was probably named for the honor roll and given a certificate. Ask students if they think there should be awards for some of the other things they may have written about that are not recognized. Or is it better just to know inside that you are good at something without letting everyone else know? This writing prompt could be used at different times of the year to reinforce the positive things that your students are doing.

# MATH

## **INSTRUCTIONAL STRATEGIES FOR TEACHERS: PREPARATION FOR MATH**

*Note: Students may respond to the selection with no preparation or discussion. However, if you would like to use the selection for instruction with an emphasis on developing math skills and increasing student understanding of prevention concepts, the following information would be helpful.*

The math question data is from the *Monitoring the Future Survey*. This questionnaire is given to youth each year, sampling 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders. Adults also participate in the survey, but their data is separate from the youth data. The chart used for the math questions comes from the latest 2002 survey. Additional information about the survey may be found at:

[www.monitoringthefuture.org](http://www.monitoringthefuture.org)

If you have access to a computer that students can use, it might be interesting for them to see the type and amount of data collected by this one annual survey.

## **ANSWERS TO MATH QUESTIONS**

1. A      MA.E.1.2.3
2. I      MA.E.1.2.3
3. C      MA.E.1.2.1

# SCIENCE

## **NOTES FOR TEACHERS ABOUT SCIENCE**

Fourth graders need to prepare for the 5<sup>th</sup> grade FCAT test in Science. The following section is designed to help acquaint them with benchmarks assessed on the 5<sup>th</sup> grade FCAT test.

## **ANSWER TO SCIENCE QUESTION**

1. B      SC.F.1.2.1

# READING

## Drugs are Big Liars

By Fonda Anderson

Nearly everyone has wished for magic that could make his or her life better. Some people would like to have more friends. Others would like to get better grades. Some want to be better at sports. Lots of people just want to feel happier.

Those are good goals. It takes work and good decision-making to change the things in life that are not what you want them to be. Some kids take drugs thinking it can help them reach one or all of those goals. It never happens. Drugs only *seem* to help, while they actually make life worse.

Drugs change the way the body works. They trick the brain into “feeling good.” Drugs do this by getting the body to create dopamine. That is a natural substance that tells the brain that doing something feels good. Because drugs trick the brain with dopamine, drugs are sometimes called “dope.”

For example, a drug’s power to make a person feel good could trick the person into thinking that more people like her. When the drug wears off, she will find that nothing has really changed. The drug just made her *think* she had more friends because it made her feel that way while she was taking it.

Physical performance, such as in sports, gets worse when a person uses drugs. Drugs can make it hard for the brain to tell the body how to move. Drugs can throw a person’s timing off and make coordination poor. But while the person is on the drug, he may *think* he’s doing just great!

By changing the way the brain thinks, drugs also can place a person in danger. The drug user may not be able to react quickly to a dangerous situation, such as crossing a busy street. He could make stupid decisions that could harm him, or at the very least embarrass him when the drug wears off. It is no accident that we sometimes call people who make stupid decisions “dopes.”

In addition to making the brain lie, drugs also do physical damage to the body. Each time a person takes the drug, he likely will need more of it to get to that same “feel good” spot in his brain. This is how the drug can take control of a person’s life. In fact, drugs can kill the person using them, a little each time. The poisons in drugs damage the body’s cells and can cause disease.

A new survey shows that fewer teens today are doing drugs. Maybe that is because kids are getting the message that drugs are just big liars.

If you know someone who is thinking about trying drugs, tell them the facts. Help them go to a teacher or adult for advice. There are lots of programs that can help people stop using drugs, or better yet, never use them at all. These programs teach people how to make good decisions that lead to real changes. That is what truly makes life better.

*Now You Know*, by Fonda Anderson, copyright 2003. Reprinted by permission of the author.

## Reading Questions

**1** According to the passage, how do drugs work in your body?

- (A) They connect body systems together.
- (B) They grow and rebuild the cells' tissues.
- (C) They make a pathway for the cells in your brain.
- (D) They change the way your brain feels and works.

How can drugs place you in danger?

- (F) They prevent you from acting quickly.
- (G) They help you see dangerous situations.
- (H) They make your body respond to danger.
- (I) They remind you to control your own life.

Why are drugs sometimes called “dope”?

- (A) They can act like poison.
- (B) They trick the brain with dopamine.
- (C) They damage the body's cells and cause disease.
- (D) They make you act like you know what's going on.



# WRITING

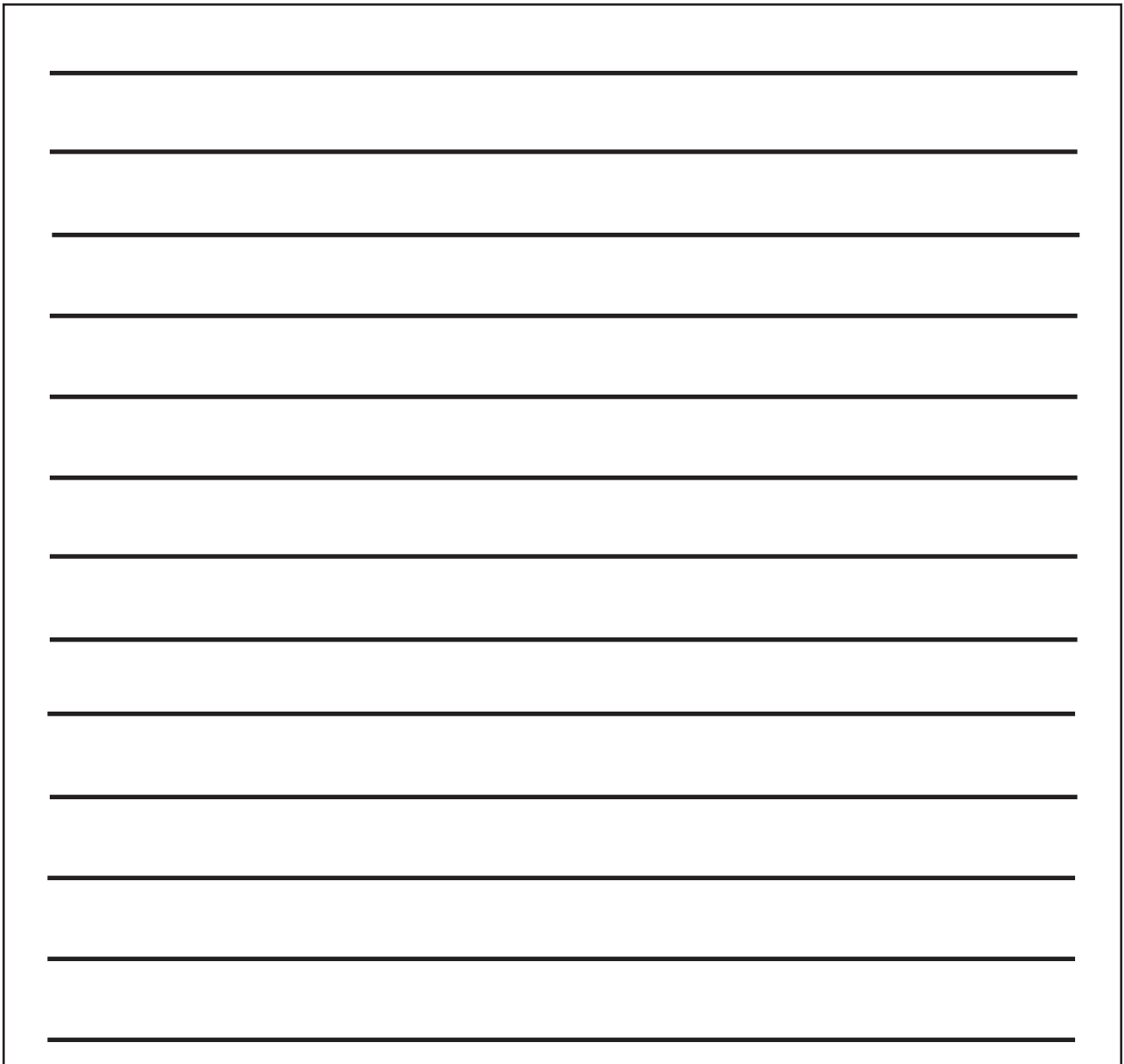
Writing Situation:

*Most people want to feel good about themselves.*

Writing Directions:

*Think about why you feel good about the things you can do or the way that you act.*

*Now explain why you feel good about yourself.*

A large rectangular box with a thin black border, containing 15 horizontal lines for writing. The lines are evenly spaced and extend across most of the width of the box.

# MATH

The table below shows the percentage of 8<sup>th</sup> graders, when responding to a national survey, who reported using illegal drugs.

Percentage of 8th Graders who Report Using Drugs				
1998	1999	2000	2001	2002
29.0	28.3	26.8	26.8	24.5

Source: *Monitoring the Future Survey, 2002*. In the public domain.

- According to the table, which year showed the greatest percentage of drug use by 8<sup>th</sup> graders?
  - A. 1998
  - B. 2000
  - C. 2001
  - D. 2002
  
- According to the table, what years showed the largest decrease in the percentage of 8<sup>th</sup> graders who reported illegal drug use?
  - F. 1998-1999
  - G. 1999-2000
  - H. 2000-2001
  - I. 2001-2002

- According to the table, which of the following best describes what happened to the percentage of 8<sup>th</sup> graders who reported using illegal drugs in 2001?
- A. The percentage increased.
  - B. The percentage decreased.
  - C. The percentage stayed the same.
  - D. The information was not accurate.

# SCIENCE

After listening to her teacher explain some facts about drug use, Camryn knows that drugs can affect the brain and using drugs that have not been recommended by a doctor is dangerous. What is the scientific explanation of why some drugs cause people who use them to have trouble walking or moving quickly?

- 1**
- Ⓐ Only bones control movement.
  - Ⓑ All body systems work together.
  - Ⓒ Only muscles control movement.
  - Ⓓ The brain only thinks you are moving.