

# *Waiting to Inhale*

INTEGRATED  
CURRICULUM UNIT  
ON TOBACCO  
AND SMOKING

UNIT  
OVERVIEW

# Waiting to Inhale

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## UNIT OVERVIEW

### **Essential Question for This Unit**

How should we make decisions about regulating smoking in public places?

### **Unit Summary**

Although smoking is perceived with increasing disfavor in the United States, it is a habit that continues to flourish around the world and is taken up by thousands of young people every day. In this unit, students will explore the past and present influence of tobacco on social, political, and economic life in the United States and around the world and its impact on individual and public health.

In Subunit 1, students are introduced to the historical and economic realities of tobacco. They will explore the origin of tobacco use and the development of the tobacco industry, beginning with the European exploration of the Americas and including the role of tobacco in the founding and growth of our nation. Students will also learn about the economic impact of tobacco by examining current trends of tobacco sales and regulation in the United States and around the world.

Subunit 2 turns to the physiological and general health effects of tobacco. Students begin with the action pathway of nicotine, exploring the biological causes of tobacco addiction by studying the brain and the function of neurotransmitters. The subunit also includes lessons on the effects of tobacco use on various body systems, such as the cardiovascular and respiratory systems, for smokers and those around them. The subunit concludes with suggestions for quitting.

In Subunit 3, students examine how advertising helps to create an appealing public image of tobacco and to minimize the negative effects. Students will begin by reviewing the history of tobacco in the public eye in the 20th century. They will also analyze domestic and foreign tobacco ads and create their own advertisements promoting the true effects of tobacco use.

The unit concludes with students examining current and proposed legislation and regulations to

ban smoking in public areas. Variations on this type of legislation are becoming more common in the United States, and have drawn varying levels of opposition from the tobacco industry, smokers, and individual-rights advocates. Students will review the positions of the various stakeholders and discuss their views on the essential question.

### **Culminating Event**

This unit could culminate with a variety of projects. Students could have a formal debate over the essential question. Alternatively, they could use their anti-smoking advertisements to launch a campaign in the school or community. Another possibility would be to have students research their own community's laws and regulations regarding smoking and possibly advocate for changes that would improve public health.

### **Key Questions/Issues**

- Tobacco is native to the Americas. What is the history of the spread of tobacco use around the world? What role did tobacco play in the founding of our nation? (World History)
- What are the short- and long-term physical effects of tobacco use? What are the short- and long-term effects of secondhand smoke? (Biology and Health Science)
- Why is it so hard to stop smoking? (Biology and Health Science)
- What are some techniques or methods I can use to help someone quit smoking? (Biology and Health Science)
- How do we currently regulate tobacco use and distribution in the United States? How has this changed over time? What are the major recent court and legal decisions affecting tobacco production and use? (U.S. Government)
- If tobacco is so bad for you and everyone knows it, why is it legal? Is it all a big conspiracy? (World History and U.S. Government)
- How much does it cost to smoke? How much will I spend over the course of my life if I smoke? (Algebra I and II)

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- I know people who smoked who lived to be 80. Doesn't this prove that smoking is it not really so bad for my health? (Algebra I)
- How has public opinion about tobacco changed over the years? What forces have influenced our opinions? (History and English Language Arts)
- How do tobacco companies persuade new consumers to start smoking? (English Language Arts)
- How has medical opinion about tobacco changed over the years? (History and Health Science)

### Learning Scenario to Kick Off the Unit

Every day it becomes a little harder to be a smoker. There is no smoking in restaurants, no smoking in stores, certainly no smoking on school property—not even in the parking lot! Smoking is banned in all government buildings. Smoking is even banned at some beaches. And in 2006, Calabasas, California, passed the country's strictest legislation, banning smoking in all public indoor and outdoor locations.

It gets more and more expensive to purchase cigarettes, and legislatures keep raising the taxes. Sometimes more than 50% of the cost is going to taxes. Some people say this is appropriate: smokers should pay for their habit—through taxes—because they are more likely to get cancer and require expensive medical care. Others say it's not fair. Through it all, many smokers are starting to get angry. They argue

that they are being treated like criminals, forced to stand outside in back alleys and pay exorbitant fees to indulge in their completely legal habit. What is the right action to take?

### Biomedical/Healthcare and Education Partner Roles

- The school librarian or media specialist can assist students with research on tobacco use and advertising. Students can use the media center to find magazine and other advertising materials for analysis.
- Professional partnerships could include local and state government agencies, the American Red Cross, National Health Occupations Students of America (HOSA), and local public health officials. Contact the American Lung Association ([www.lungusa.org](http://www.lungusa.org)) and the American Society of Respiratory Care ([www.aarc.org](http://www.aarc.org)) for additional resources and materials.
- Additional speakers that can be invited to participate in the units and/or culminating event include:
  - Respiratory Therapist
  - Pulmonologist (physician who specializes in lung diseases)
  - Neurologist
  - Cardiologist

### SUBUNITS AND MAJOR TOPICS (ACROSS ACADEMIC AND TECHNICAL SUBJECT AREAS)

#### Subunit 1 *Smoking and Society*

ENGLISH LANGUAGE ARTS ·  
WORLD HISTORY · U.S. GOVERNMENT ·  
ALGEBRA I · ALGEBRA II

- Historical social and economic impact of the discovery and exportation of tobacco from the Americas
- Laws and regulations regarding tobacco distribution and use
- Financial cost of smoking for individuals, using rate of inflation and geometric series
- Graphing linear and exponential equations
- Counterexamples in mathematics

#### Subunit 2 *Smoke and Fire*

BIOLOGY · HEALTH SCIENCE · ENGLISH  
LANGUAGE ARTS

- Nervous system, including parts and function of the brain, neurons, neurotransmitters, and action potential
- Chemical properties of the nicotine molecule and its effect on neurotransmission
- Primary biological effects of tobacco smoke on the function and structures of the respiratory system
- Potential physical effects of smoking and secondhand smoke
- Strategies to quit smoking

#### Subunit 3 *Smoke and Mirrors*

ENGLISH LANGUAGE ARTS · VISUAL ARTS

- Changes in social and cultural perception of tobacco use and influence of tobacco in the United States
- Contextual analysis of print materials in English
- Persuasive rhetoric in writing
- Writing for specific audiences
- Communication through visual art