

E-Cigarettes: A Dangerous Trend

Teens now use e-cigarettes more than any other nicotine-containing product. While e-cigarettes are less harmful than tobacco cigarettes for adult smokers, most versions pose a great risk to teens because they contain the same addictive nicotine found in cigarettes. One cartridge can contain as much nicotine as a pack of cigarettes. By sharing the article “E-Cigarettes: A Dangerous Trend” and teaching this lesson and activity, you’ll help students learn why e-cigarettes aren’t harmless.



Critical-Thinking Questions

1 How are e-cigarettes similar to tobacco cigarettes? How are they different? (*Both tobacco cigarettes and most e-cigarettes contain nicotine. E-cigarettes produce a vapor that contains nicotine and other chemicals, such as flavor compounds. Cigarettes release a toxic smoke that contains thousands of chemicals, roughly 70 of which are known to cause cancer. There is evidence that some e-cigarette vapor also contains cancer-causing chemicals.*)

2 What health risks do e-cigarettes pose? Cite scientific evidence from the text to support your answer. (*Most vaping devices contain nicotine, which is highly addictive. Using the drug can lead people to become addicted, which may cause them to use other nicotine-containing products, like tobacco cigarettes. Evidence shows that teens who vape are more likely to begin smoking. There is evidence that nicotine addiction may make teens more vulnerable to other drug addictions. There is some evidence that e-cigarette vapor also contains cancer-causing chemicals as well as toxic metals like cadmium, which can cause breathing problems.*)

3 Why is it important that scientists continue studying the health effects of e-cigarettes? (*The devices have existed for only about 15 years, so little is known about the long-term health effects of the devices. The history of smoking shows that it can take a long time to gather evidence about how dangerous using a drug or other substance is to your health.*)

Writing Prompts

Grades 6–8 Are e-cigarettes safer than traditional tobacco cigarettes? Cite evidence to support your answer.

Grades 9–10 Should e-cigarettes be illegal for teens? Cite evidence from the text to support your answer.

Grades 11–12 You read that scientists don’t know all of the risks associated with e-cigarettes. How do you think this uncertainty should affect how the devices are regulated?

Paired Reading

“Teen Researcher Asks: Why Do E-Cigs Harm the Lungs?” blog post, June 4, 2018, <https://teens.drugabuse.gov/blog>. This paired text describes a teen’s investigation into how e-cigarettes can damage the lungs.

Writing Prompt Vaping devices don’t release smoke like cigarettes do. Does that make them safe? Use text evidence from “E-Cigarettes: A Dangerous Trend” and “Teen Researcher Asks: Why Do E-Cigs Harm the Lungs?” to support your answer.

Activity Sheet Answers

1. Middle school: Roughly .5% to 3% or by 2.5%. High school: Roughly 2% to 12% or by 10%.

2. E-cigarette use is higher in high school. Answers will vary but may include that older students might have easier access and greater exposure to the devices.

3. You would expect the number of teen smokers to increase over time if e-cigarette use makes a person more likely to smoke cigarettes.

4. Answers will vary but should include reference to the top reasons students use e-cigarettes. Programs aimed to reduce marketing to teens may help. Other actions may include informing people that e-cigarettes have some of the same health risks as cigarettes.

Subject Areas

- Science Literacy
- English Language Arts
- Health/Life Skills

Standards

CCSS

RST.6-8.7 / RST.9-10.7

- Integrate and evaluate content presented in diverse formats, including visually and quantitatively, as well as in words

W.6-8.1 / W.9-10.1

- Write arguments to support claims using valid reasoning and relevant and sufficient evidence

NGSS Practices

- Analyzing and Interpreting Data/Engaging in Argument from Evidence/Obtaining, Evaluating, and Communicating Information

NSES

- Personal Health
- Science and technology in society/science and technology in local, national, and global challenges

NCSS

- 8. Science, technology, and society

Additional Lesson Resources

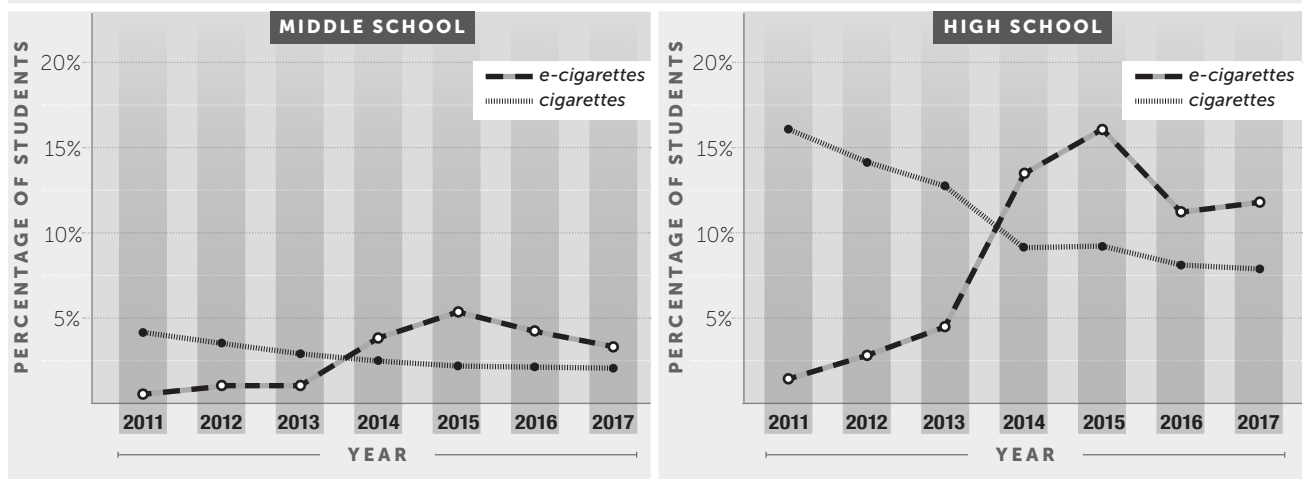
- Tiered Vocabulary Tools: Visit scholastic.com/headsup/ecigarettes for a vocabulary list to support this article.
- headsup.scholastic.com/teachers and teens.drugabuse.gov



Who Is Vaping?

Study the following data about e-cigarette use in teens. Then, along with the information in the article, answer the questions that follow.

PERCENTAGE OF STUDENTS WHO REPORTED USING CIGARETTES OR E-CIGARETTES



Top reasons for e-cigarette use among middle and high school students:

- 1 Friend or family member used them
- 2 They are available in flavors such as mint, candy, fruit, or chocolate
- 3 Belief that they are less harmful than other forms of tobacco, such as cigarettes
- 4 To try to quit using tobacco products, such as cigarettes
- 5 They can be used in areas where other tobacco products, such as cigarettes, are not allowed

Answer these questions on a separate sheet of paper as necessary.

1. By roughly how much did the percentage of middle school students who use e-cigarettes increase between 2011 and 2017? How much did it increase for high school students in the same period?
2. In which population of students is e-cigarette use higher? Why do you think that is?
3. In the article, you read about data that suggests people who use e-cigarettes are more likely to start smoking. If that theory is correct, how would you expect the data in the graphs to change over time?
4. In the article, you read about some of the ways officials are trying to reduce teen vaping. Do you think these prevention efforts will be successful? Cite evidence to support your reasoning. What additional actions would you recommend?

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Abuse, National Institutes of Health, U.S. Department of Health and Human Services