

D.A.R.E.

**Vaping  
Enhancement  
Lesson:  
Middle School**





# Vaping Enhancement Lesson – Middle School

## OVERVIEW:

- Students will learn about the risks associated with vaping and compare them to prior knowledge about cigarette smoking to understand how knowledge of risk factors increases over the lifespan of a product.
- Students will also learn that it is difficult for early users of a product to accurately understand what consequences they may experience in the future, but that more risks are becoming apparent as vaping is studied.

## OBJECTIVES:

Students will:

1. Recognize and identify basic information about vaping.
2. Understand that most people in their grade do not vape.
3. Identify similarities between tobacco and vape use, attitudes, and effects.
4. Identify risks associated with nicotine use.
5. Understand that products initially appearing safe may later be considered harmful as research and user data are studied over time.

## PREPARATION:

- Copy student handout for distribution in class
- Copy statement signs for Timeline activity
- Test video to make sure it plays on system provided

## MATERIALS:

- Lesson USB: Powerpoint – 7 Slides
- Lesson USB: Student Handout
- Officer Download pg. 5-16: Statement Signs for Activity 4 Timeline



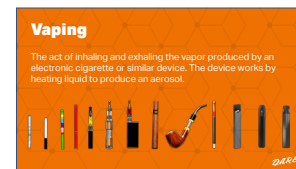
Activity 1	Activity 2	Activity 3	Activity 4	Activity 5
<b>Introduction – Vaping</b>	<b>Lessons Learned from Cigarette Smoking</b>	<b>Unhealthy Habits</b>	<b>Don't be a Guinea Pig</b>	<b>Journal and Closing</b>
(5 minutes) LARGE GROUP	(5 minutes) LARGE GROUP	(15 minutes) SMALL GROUP	(15 minutes) LARGE GROUP	(5 minutes) LARGE GROUP

**ACTIVITY 1**  
**Introduction - Vaping**

**NOTES**  
**(5 minutes)**

**Say:** You've probably heard about vaping, but a lot of students aren't really sure what it means. Today I want to talk about it to make sure you're clear on what vaping is and what we know about the risks involved in doing it.

**Display Slide 1**



**Facilitate Discussion:** Let's hear what you already know about vaping.

**Officer Note:** We are facilitating a discussion to have students share what they already know about vaping - not introducing them to new concepts.

- What is a definition for vaping? What does it mean "to vape?"
- What are some names for vaping equipment? (Possible answers: mods, tanks, JUUL, vape pen, e-cig, ENDS)
- What is in the liquid that is vaped? (nicotine, flavor, other chemicals that may be approved for food products but their effects are unknown when inhaled)
- Why do you think it is a concern? (Target concepts below)
  - rate of teen use rising (MTF, Teen Tobacco Use Survey stats)
  - Most teens do not understand what vaping is and the risks involved

**Officer Note:** Be sure to reinforce accurate norm. Although the rate is rising and that is a concern, **most youth do not vape** – give current stats:

- In 2018, the percentage of 8th graders who reported vaping nicotine increased, from 3.5 percent to nearly 6.1 percent
- Among 10th graders, the increase was from 8.2 percent to 16.1 percent
- In both grades, more than 80% do not vape

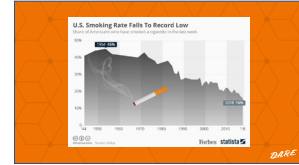
## ACTIVITY 2 Lessons learned from Cigarette Smoking

NOTES  
(5 minutes)

### Display Slide 2

#### Facilitate Discussion:

- Smoking cigarettes used to be common; what percentage of people smoked in 1954?
- Why was that a bad idea?
- What do you notice about the rate of smoking since 1970?
- Smoking was once allowed in restaurants, on planes, at work – how has that changed?
- Why do you think it changed? How many young people do you think smoke today?



### Display Slide 3

**Summarize:** Over time with research and human experience, we learned that smoking cigarettes was very harmful to health; it became a leading cause of death and dollars spent on health care in U.S. Let's see if we can learn some lessons from the history of cigarette smoking to help us make good decisions about vaping.

#### Introduce: 2 Key Vaping Risks

- Developing a habit – or addiction – that will negatively affect your life
- Becoming a “Guinea Pig” for assessing long term health outcomes

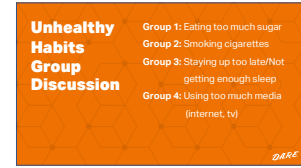


### ACTIVITY 3 Unhealthy habits

### NOTES (15 minutes)

#### Display Slide 4

**Small Group Activity** – divide class into 4 groups, each assigned one of the following topics.



#### Unhealthy habits?

*Group 1: Eating too much sugar*

*Group 2: Smoking cigarettes*

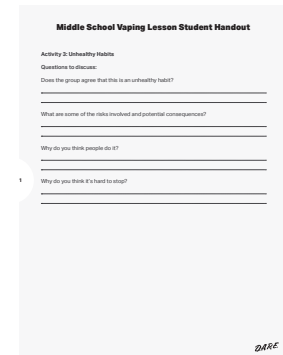
*Group 3: Staying up too late/Not getting enough sleep*

*Group 4: Using too much media (internet, tv)*

**Instruct** groups to discuss the questions on Handout page 1.

#### Questions to discuss:

- Does the group agree that this is an unhealthy habit?
- What are some of the risks involved and potential consequences?
- Why do you think people do it?
- Why do you think it's hard to stop?

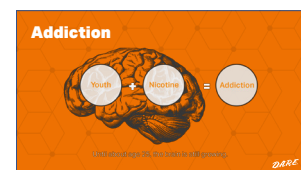


**Facilitate** report out of group discussion – guide students through responses, calling on each group to give their thoughts.

**Officer Note:** Target concept for final question is that one reason it can be hard to stop some bad habits is addiction.

#### Display Slide 5

**Say:** Addiction is a brain disease that results in the inability to stop doing a behavior even though there are negative consequences. Nicotine is highly addictive, and the brains of young people are even more at risk of addiction to it than adults. Let's find out more about that.



**Select** students to read each of the Youth, Nicotine, and Addiction facts on page 2 of handout. Ask students to put a star next to any statement that is new information to them.

### ACTIVITY 3

## Unhealthy habits (continued)

### NOTES

#### Facts From Handout:

- Exposure to nicotine among youth is particularly dangerous since it has been shown to have an effect on key brain receptors, making young people more susceptible to nicotine addiction.
- There is some evidence that the effect of nicotine on developing brains may result in nicotine addiction and greater vulnerability to addiction to other drugs as well.

<https://truthinitiative.org>

Youth who use multiple tobacco products are at higher risk for developing nicotine dependence and might be more likely to continue using tobacco into adulthood.

*Reducing Tobacco Use: A Report of the Surgeon General*

Brain imaging studies of adolescents suggest that those who begin smoking regularly at a young age have **reduced activity** in the prefrontal cortex (of brain) and perform less well on tasks related to memory and attention compared to people who don't smoke. These brain changes are also linked with increased sensitivity to other drugs as well as greater impulsivity.

<https://www.ncbi.nlm.nih.gov/pubmed/16937098>

*"After only a few months of using nicotine [these teens] describe cravings, sometimes intense ones. Sometimes they also **lose their hopes** of being able to quit. And interestingly they show less severe symptoms of withdrawal than adults, but they start to show them earlier on."*

<https://www.businessinsider.com/vaping-brain-effects-juul-2018-4>

There is substantial evidence that e-cigarette use increases risk of using combustible tobacco cigarettes among youth and young adults. Teens who use e-cigs are between two and seven times more likely to eventually smoke conventional cigarettes compared with young people who never try them.

<https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes>

- Nicotine salt solutions (like JUUL pods) contain nicotine concentrations 2 to 10 times those found in most free-base-nicotine e-cigarette products.
- Combustible cigarettes deliver high doses of nicotine as well, but the bad taste and sensations of the initial smoking experience discourage some young people from continuing to smoke.
- Pod mods may deliver an addictive dose of nicotine without an bad user experience or other tobacco-related deterrents — which may be one reason why 80% of 15-to-24-year-olds who try JUUL continue using the product, and why social media posts saying "addicted to my JUUL" are common.

<https://www.nejm.org/doi/full/10.1056/NEJMp1805758>



### ACTIVITY 3 Unhealthy habits (continued)

### NOTES

**Think Pair Share:** Think about the following questions and write your response on Handout page 3. Pair up with a person next to you and discuss your responses. After conversation, share insights with large group.

- How would your life be affected if you had addiction to nicotine?
- What plans or goals for your life might be difficult to achieve with an addiction to nicotine?

### ACTIVITY 4 Don't be a Guinea Pig

### NOTES (15 minutes)

#### Display Slide 6

**Officer Note:** Introduce concept that guinea pigs are used in scientific research – for example, their hearing system is similar to ours, and researchers made discoveries about the human ear from observing them. Also used to test whether substances – like allergens or vaccines – are safe or harmful. You might also hear terms like “lab rat,” which has a similar meaning.



#### Facilitate a discussion:

- What do you think it means when people say “do you want to be a guinea pig?” (possible answer and the concept to reinforce – to try something out that is unknown to see what will happen)
- When something new is introduced, how do we know whether it is safe or not, especially in the long-term? (possible answer/concept to reinforce – the risks may be unknown at first)
- How do we find out more about risks and consequences as time passes? (possible answer/concept to reinforce – we learn more through research experiments, user reports and experience, and long-term population data)

#### Display Slide 7





**ACTIVITY 4****NOTES****Don't be a Guinea Pig (continued)**

- How did our knowledge about cigarettes change over time? (Reinforce point about cigarettes – we thought they were safe and over time they turned out to be dangerous)
- Who would benefit from you acting as a Guinea Pig for understanding the effects of Vaping? (possible answers: advertising agencies, tobacco companies, companies that produce vaping and nicotine products)
- Who would experience the consequences of the effects of Vaping? (people who vape)

**Vaping Timeline activity:**

**Officer Note:** The “Timeline Facts” signs for the following activity are found in the Officer Download. Activity will demonstrate how – just a few years ago when vaping was new – people said “it’s safe” and “there’s nothing wrong with it” and as time passes, there is more and more scientific evidence showing that it does have negative effects.

- **Set the Scene:** Have a student read the activity introduction on Handout page 3.
- **Distribute Timeline Facts** about vaping in random order – each sign should be held by one student for others to read.
- Instruct students to work together to arrange sign holders in chronological order across the front of the room.
- Once signs are in order, call on students to read signs out loud. Students can make notes about significant events on Handout page 4.

**Facilitate a discussion:**

- Which of these facts were most surprising?
- Compare our “human vaping timeline” to the tobacco timeline we discussed previously – what do you notice? (Possible answer/concept to reinforce is that risks become known over time.)
- What are three predictions about what we might find out in the future about vaping?



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**ACTIVITY 5**  
**Journal and Closing**

**NOTES**  
**(15 minutes)**

**Summarize:** You already know how to opt out – remember REAL (refuse, explain, avoid, leave). We talked today about a lot of reasons that it's best to opt out of vaping. Think about which of these reasons are most important to you.

**Instruct** student to complete journal questions on Handout page 4.

**Journal Questions:**

- What vaping risks are you most concerned about?
- What is your reason not to vape?

**Ask** students to share.

Thank students and teacher for having you in their class, remind students to be safe and responsible.





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