



Hazards of Vaping

Illinois CTE Endorsement Area:
Health Science Technology & Human Services
Teacher and Student Editions

Original Lesson Developers: Dr. D. Drach, T. Storlie, K. Lopez, N. Budde RN
ILCTE Leader, Nance Budde
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Converted to Format by Karen Aldworth
Current Phase of Lesson: Phase 3 of 5



Illinois
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Lesson Overview:

The prevalence of young people vaping is on the rise; however, doctors and researchers are still learning about its long-term effects. Statistically, 28% of high school students and 11% of middle school students currently vape. In this lesson, students will analyze ways that vaping is advertised to teens. They will explore some of the reasons their classmates vape and discover several specific health problems associated with vaping. Findings will be presented to the class (and perhaps the entire school) through a printed flyer or a recorded public service announcement (PSA).

Classes or Discipline:

- Any CTE discipline or any Career Pathway.
- All Health Science Career Pathways

Career Cluster:

- [Health Science](#)
- [Human Services](#)

Illinois CTE Endorsement Area:

- [Health Science](#)
- [Human Services](#)

Grade Level(s):

- Middle School (statistics indicate that students as young as middle school are starting to vape).
- Secondary students
- Post-secondary students

Lesson Duration: 2 hours

Learning Objectives:

- Examine the health-related issues associated with vaping.
- Determine how the vaping industry targets teens and young adults in their advertisements.
- Evaluate health-related impacts of current and continual use of vaping products.
- Interpret information on the “pros” and “cons” of vaping.

Standards Addressed:

- [National Health Science Standards](#)
 - 1.1.1f – Respiratory System
 - Identify respiratory organs (lungs)
 - 1.2 Diseases & Disorders – etiology, pathology, treatment and prevention
 - Asthma
 - Cancer
 - COPD
 - Myocardial Infarction (heart attack)

- Stroke
 - 9.1.1 Healthy behaviors that promote health and wellness.
 - 9.1.3 Describe strategies for the prevention of disease. (lung and respiratory associated with vaping).
- [Priority Learning Standards](#)
 - Health Standards
 - 22.A.4b Analyze possible outcomes of effective health promotion and illness prevention.
 - 23.B.5a Understand the effects of healthy living on individuals and their future generations (i.e. not using alcohol, tobacco and drugs during pregnancy).
- **Common Core Anchor Standards**
 - CC.K-12.SL.1 Comprehension and Collaboration: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly & persuasively

Enduring Understandings:

- Vaping poses a significant health risk, not only in long term vapers but also teens and young adults.
- A for-profit industry spends quite a lot of money to encourage teens & young adults to vape.
- Vaping can be addictive like smoking.
- Understand the risks of vaping and communicate the health implications to others.

Resources and References:

1. Access to the Internet.
2. Student access to computers / internet for research for debate research and PSA flyer.
3. Internet connectivity. Teacher internet for opening Quizizz and video.
4. Poster board (optional)
5. 8.5x11 White or colored paper or construction paper for public service flyers
6. 5x8 Index cards (lined is preferable) for student note taking during research.
7. Colored markers, pencils or crayons.
8. Handout that can be printed for students: "[How to Quit Vaping: A Practical Guide](#)" – this is optional but can be a great take-away.
9. Quizizz: [Vaping Information](#)
10. Videos:
 - [New Brunswick teen warns of hazards of vaping after allegedly coughing up blood.](#)

- [How Dangerous is Vaping?](#)
11. Articles:
- [The Aerosol You Inhale...](#)
 - [Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults](#)
 - [Health Risks of Vaping: What You Need to Know](#)
 - [5 Vaping Facts You Need to Know](#)
 - [Is Vaping Bad for You? And 12 Other FAQs](#)
 - [10 Shocking Health Risks of Vaping and E-Cigarettes](#)
 - [Concerns Explode Over New Health Risks of Vaping](#)

Essential Employability Skills:

There are four [essential employability skills](#)

- Personal Ethic: integrity, respect, perseverance, positive attitude
- Work Ethic: dependability, professionalism
- Teamwork: critical thinking, effective and cooperative work
- Communication: active listening, clear communication

The focus of this lesson is on critical thinking, effective and cooperative work and clear communication

Skill	How it is addressed:
Critical Thinking	Through individual and group research work and discussion, students will be able to think through complex problems and come to accurate (factual) conclusions based on their research. Explore: Part I: Step 1 & 4 Explore Part II: Step 2 Elaborate: Option 1: Step 1
Effective and cooperative work	Learning the ability to communicate with others, either individually or in group settings, is critical for future success (both personally & professionally). Engage: Step 1 Explore Part I; Step 1&3 Explore Part II: Step 2 Elaborate: Step 1 (Option II)
Clear Communication	Students will need to clearly communicate in their written PSA. Students that opt for the video PSA presentation will need to clearly communicate their message, stay on topic and remain focused. Elaborate: Step 1 (Option I or II)

Suggested Differentiation Strategies:

- Group work – instructor will assign group members to ensure diversity in learning styles within each group.

- The articles selected for this lesson include varying reading abilities.
- This lesson is designed to be open-ended to meet the needs of various types of learners.
- Gaming opportunities for diverse learners (visual) with answers provided. (Quizizz)
- PSA will allow learners with diverse learning capabilities to be successful. Students can design a flyer or video record their PSA.

Throughout this lesson the teacher notes and comments are in red.

1. Engage: (20 minutes)

1. [Click Here](#) and wait for your teacher to share the Quizizz game code
Use the following link to provide your students a game code to play :
[Vaping Information Quizizz Game](#)
 - a. What surprised you about information in the Quizizz game (if anything)?
2. Look at the following picture and answer the questions below it.



- a. When you look closely at this JUUL ad, what do you see?
 - b. Who is the target audience of this ad?
 - c. What are the promises you see?
 - d. Is this ad truthful?
3. Watch this video and discuss with your neighbor if it might change your mind about JUUL vaping. (2.55 minutes)
[New Brunswick teen warns of hazards of vaping after allegedly coughing up blood](#)

2. Explore: (30 minutes)

Part I

1. Why do teenagers vape? Discuss this with the person sitting beside you. List at least 3 reasons. Your teacher will provide a place to write them for the class to see.
Students can write their responses on a class whiteboard or on a large paper attached to the wall.
2. Look at all the reasons written by your classmates. Identify and discuss any common reasons you see listed.
3. View this video on the dangers of vaping: (4.04 minutes)
[How Dangerous Is Vaping?](#)

4. After viewing the health dangers of vaping video, read the CDC article on facts and risks of vaping and e-cigarettes. Discuss the following in groups. Your group will present your thoughts to the entire class.

[Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults](#)

- a. What would be the strongest argument against vaping?
- b. Does the vaping industry market to teens and young adults? If yes, why? If not, who do they target?
- c. Is it true that vaping is a safer alternative to smoking? If yes, why? If no, why not?
- d. Do the flavors make vaping more attractive to young adults and middle school students?
- e. If you know someone who vapes and uses JUUL, is it because of the “mint” flavor?

Part II

1. Get into small groups of 3-4. Your group should select a common health risk from the following list:
 - Asthma
 - Cancer
 - COPD
 - Myocardial Infarction (heart attack)
 - Stroke
2. Using videos, websites, print resources, and other information, explore how vaping causes or affects health conditions. Some of your possible references are listed below.
3. Make a poster stating the medical condition you chose and listing how vaping affects it. Your poster should address the following questions. Share your poster with the class.
 - a. What are the pros of vaping? Include information on who has benefitted from vaping.
 - b. What are the cons of vaping? Include information on statistics regarding health issues affected or caused by vaping.
 - c. Use these links to help with your research.
 - [The Aerosol You Inhale...](#)
 - [Health Risks of Vaping: What You Need to Know](#)
 - [5 Vaping Facts You Need to Know](#)
 - [Is Vaping Bad for You? And 12 Other FAQs](#)
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 - [Concerns explode over new health risks of vaping](#)

Don't spend much time making the poster. It can be as simple as writing on a blank sheet of paper, poster board or the white board.

Be sure you assign the groups to ensure that all diverse learners are best able to participate in this activity.

Everyone must participate in the research. Keep them focused on the research they found for their disease/condition.

3. Explain: (15 minutes)

1. What are 5 reasons that you feel young people vape?
This could be a compilation of the information that was written on the white board.
2. What are 3 possible "pros" to vaping?
3. What are 3 possible "cons" to vaping?
Asthma, Cancer, COPD, Heart Attack, Stroke, potentially irreversible lung damage
4. What are 3 specific health risks associated with vaping?
This could be a compilation of the information that was written on the white board.
5. Why does the vaping industry market heavily to teens and young adults?
If they can capture the young teen market, they potentially have lifelong users of their products.
6. Is vaping a safer alternative to smoking? If yes, why? If not, why?
Not necessarily, you may still be inhaling nicotine, an addictive product in addition to other chemicals.
7. Is JUUL still advertising in the US?
NO – it has been found to be dangerous. They (JUUL) have currently decided to stop all advertising in the US.

4. Elaborate/Extend: (45 minutes)

1. OPTION I:

Individually design a public service flyer on vaping. It should be on standard 8½ x 11 paper printed on both sides and tri folded. The flyer should include the following information:

- a. 3 or more health considerations of vaping
- b. 3 strategies to reduce the health risks associated with vaping **OR** how to stop vaping.
- c. Be creative and make it eye catching but be certain it is factual.

2. **OPTION II:** In a group of no more than 3 people, design and record a Public Service Announcement (PSA) presentation about the hazards of vaping. Everyone in the group should be involved but not everyone has to be “on camera.” The video should be as close to 60 seconds as possible. The content is not dictated but it should effectively communicate that vaping is not a good idea.

There is a rubric in the evaluation section. Or, you can allow the students to determine the winning flyer or winning video. Encourage students NOT to vote for their own design or video.

Have a small treat for the winner(s).

5. Evaluate:

The following are possible means to evaluate student mastery of the objectives and standards addressed in this lesson.

- a. Post lesson Quizizz with improvement in the number of questions correctly answered.

[Vaping Information Quizizz](#)

- b. Public service flyer designed on the risks of vaping.

Here is the rubric.

8-9 Significant evidence of student knowledge and reasoning process.

6-7 Evidence of student knowledge and reasoning process.

5 or less – Insufficient evidence of student knowledge and reasoning process.

Category	3	2	1
Identify common health risks associated with vaping. Define the most serious complications associated with vaping and those conditions.	a. Identify three (3) key common health risks associated with vaping. b. The most serious complications are defined and detailed. c. PSA has no factual inaccuracies.	a. Identify two (2) key common health risks associated with vaping. b. Complications are defined and detailed. c. PSA has mostly correct information with 1-2 areas of inaccurate information.	a. Identified one (1) key common health risk associated with vaping. b. Complication is poorly defined or detailed. c. PSA information is largely inaccurate or irrelevant.
Format of information contained in the PSA is understandable, readable and accurate. PSA can be written, presented to	a. Three (3) health complications are expressed in a way that provides evidence of student knowledge and reasoning process.	a. Two (2) health complications are expressed in a way that provides evidence of student knowledge and reasoning process.	a. One (1) health complication is expressed in a way that it is difficult to determine student's knowledge or reasoning process.

class or via a video.		<p>b. It is organized in thought.</p> <p>c. Written presentation shows no mistakes in attention to detail & organization. PSA is eye catching for the intended audience.</p> <p>d. Video presentation is between 60-90 seconds in length.</p>	<p>b. It is mostly organized in thought.</p> <p>c. Written presentation shows few errors in attention to detail and is mostly organized for the intended audience. PSA is mostly eye catching in appeal.</p> <p>d. Video presentation exceeds 90 seconds or is less than 60 seconds in length.</p>	<p>b. It is not organized in thought.</p> <p>c. Written presentation is unclear and has multiple mistakes in information that is inaccurate.</p> <p>c. PSA does not catch the intended audience's eye.</p> <p>d. Video presentation exceeds 2 minutes or is less than 60 seconds in length.</p>
Identify strategies to prevent health complications that promote health & wellness.		<p>a. Contains three (3) strategies to either prevent health risk complications or to stop vaping.</p> <p>b. Strategies are thoughtful, practical and designed to encourage health and wellness.</p>	<p>a. Contains two (2) strategies to either prevent health risk complications or to stop vaping.</p> <p>b. Strategies are mostly thoughtful and practical and designed to encourage health and wellness.</p>	<p>a. Contains one (1) strategy to prevent health risk complications or to stop vaping.</p> <p>b. Strategies are not thoughtful or practical.</p> <p>c. There is very little design or information that encourages health or wellness.</p>

Notes:

All ILCTE lessons are vetted by Curriculum Leader, Dr. Brad Christensen.

To see a review of this lesson by previous users, [click here](#).

We invite users of this lesson to [click here](#) to leave follow up information and rating.

We would like to publish pictures / videos of your students using this lesson. Please send to Rod McQuality at: rdmcquality@ilstu.edu. By sending pictures, you have met all the picture / video release for your school.

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Download as Google Doc or Word Doc. When open, click “open with” Google Docs. If you want in a Word Doc: click “file”, “download”, Microsoft Word and you will have in original PDF format.



Hazards of Vaping

Student Edition

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- Interpret information on the “pros” and “cons” of vaping.

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- A for-profit industry spends quite a lot of money to encourage teens & young adults to vape.
- Vaping can be addictive like smoking.
- Understand the risks of vaping and communicate the health implications to others.

Resources and References:

1. Access to the Internet.
2. Student access to computers / internet for research for debate research and PSA flyer.
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- Teamwork: critical thinking, effective and cooperative work
- Communication: active listening, clear communication

The focus of this lesson is on professional, critical thinking and clear communication.

Skill	How it is addressed:
Critical Thinking	Through individual and group research work and discussion, students will be able to think through complex problems and come to accurate (factual) conclusions based on their research. Explore: Part I: Step 1 & 4 Explore Part II: Step 2 Elaborate: Option 1, Step 1
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1. Engage:

1. [Click Here](#) and wait for your teacher to share the Quizizz game code.
 - a. What surprised you about information in the Quizizz game (if anything)?
2. Look at the following picture and answer the questions below it.



- a. When you look closely at this JUUL ad, what do you see?
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 - d. Is this ad truthful?
3. Watch this video and discuss with your neighbor if it might change your mind about JUUL vaping. (2.55 minutes)
[New Brunswick teen warns of hazards of vaping after allegedly coughing up blood](#)

2. Explore:

Part I

1. Why do teenagers vape? Discuss this with the person sitting beside you. List at least 3 reasons. Your teacher will provide a place to write them for the class to see.
2. Look at all the reasons written by your classmates. Identify and discuss any common reasons you see listed.
3. View this video on the dangers of vaping: (4.04 minutes)
[How Dangerous Is Vaping?](#)

4. After viewing the health dangers of vaping video, read the CDC article on facts and risks of vaping and e-cigarettes. Discuss the following in groups. Your group will present your thoughts to the entire class.

[Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults](#)

- a. What would be the strongest argument against vaping?
- b. Does the vaping industry market to teens and young adults? If yes, why? If not, who do they target?
- c. Is it true that vaping is a safer alternative to smoking? If yes, why? If no, why not?
- d. Do the flavors make vaping more attractive to young adults and middle school students?
- e. If you know someone who vapes and uses JUUL, is it because of the “mint” flavor?

Part II

1. Get into small groups of 3-4. Your group should select a common health risk from the following list:
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2. Using videos, websites, print resources, and other information, explore how vaping causes or affects health conditions. Some of your possible references are listed below.
3. Make a poster stating the medical condition you chose and listing how vaping affects it. Your poster should address the following questions. Share your poster with the class.
 - a. What are the pros of vaping? Include information on who has benefitted from vaping.
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 - [10 Shocking Health Risks of Vaping And E-Cigarettes](#)
 - [Concerns explode over new health risks of vaping](#)

3. Explain:

1. What are 5 reasons that you feel young people vape?
2. What are 3 possible “pros” to vaping?
3. What are 3 “cons” to vaping?
4. What are 3 specific health risks with vaping?
5. Why does the vaping industry market heavily to teens and young adults?
6. Is vaping a safer alternative to smoking? If yes, why? If not, why?
7. Is JUUL still advertising in the US?

4. Elaborate/Extend:

1. **OPTION I:**
Individually design a public service flyer on vaping. It should be on standard 8 ½ x 11 paper printed on both sides and tri folded. The flyer should include the following information:
 - a. 3 or more health consideration of vaping
 - b. 3 strategies to reduce the health risks associated with vaping **OR** how to stop vaping.
 - c. Be creative and make it eye catching but be certain it is factual.
2. **OPTION II:** In a group of no more than 3 people, design and record a Public Service Announcement (PSA) presentation about the hazards of vaping. Everyone in the group should be involved but not everyone has to be “on camera.” The video should be as close to 60 seconds as possible. The content is not dictated but it should effectively communicate that vaping is not a good idea.

5. Evaluate:

Your teacher may use the following to evaluate your understanding of the information presented in this lesson.

- a. [Click Here](#) and wait for your teacher to share the Quizizz game code
- b. Public service flyer designed on the risks of vaping. The rubric that may be used is illustrated below.

Category	3	2	1
Identify common health risks associated with vaping. Define the most serious complications associated with vaping and those conditions.	<p>a. Identify three (3) key common health risks associated with vaping.</p> <p>b. The most serious complications are defined and detailed.</p> <p>c. PSA has no factual inaccuracies.</p>	<p>a. Identify two (2) key common health risks associated with vaping.</p> <p>b. Complications are defined and detailed.</p> <p>c. PSA has mostly correct information with 1-2 areas of inaccurate information.</p>	<p>a. Identified one (1) key common health risk associated with vaping.</p> <p>b. Complication is poorly defined or detailed.</p> <p>c. PSA information is largely inaccurate or irrelevant.</p>
Format of information contained in the PSA is understandable, readable and accurate. PSA can be written, presented to class or via a video.	<p>a. Three (3) health complications are expressed in a way that provides evidence of student knowledge and reasoning process.</p> <p>b. It is organized in thought.</p> <p>c. Written presentation shows no mistakes in attention to detail & organization. PSA is eye catching for the intended audience.</p> <p>d. Video presentation is between 60-90 seconds in length.</p>	<p>a. Two (2) health complications are expressed in a way that provides evidence of student knowledge and reasoning process.</p> <p>b. It is mostly organized in thought.</p> <p>c. Written presentation shows few errors in attention to detail and is mostly organized for the intended audience. PSA is mostly eye catching in appeal.</p> <p>d. Video presentation exceeds 90 seconds or is less than 60 seconds in length.</p>	<p>a. One (1) health complication is expressed in a way that it is difficult to determine student's knowledge or reasoning process.</p> <p>b. It is not organized in thought.</p> <p>c. Written presentation is unclear and has multiple mistakes in information that is inaccurate.</p> <p>c. PSA does not catch the intended audience's eye.</p> <p>d. Video presentation exceeds 2 minutes or is less than 60 seconds in length.</p>
Identify strategies to prevent health complications that promote health & wellness.	<p>a. Contains three (3) strategies to either prevent health risk complications or to stop vaping.</p> <p>b. Strategies are thoughtful,</p>	<p>a. Contains two (2) strategies to either prevent health risk complications or to stop vaping.</p> <p>b. Strategies are mostly thoughtful and practical and</p>	<p>a. Contains one (1) strategy to prevent health risk complications or to stop vaping.</p> <p>b. Strategies are not thoughtful or practical.</p>

		practical and designed to encourage health and wellness.	designed to encourage health and wellness.	c. There is very little design or information that encourages health or wellness.
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