

Health Education

Heart and Lung Diseases: Effects of Smoking/Vaping

Gorja Yadav & Tanya Ravi

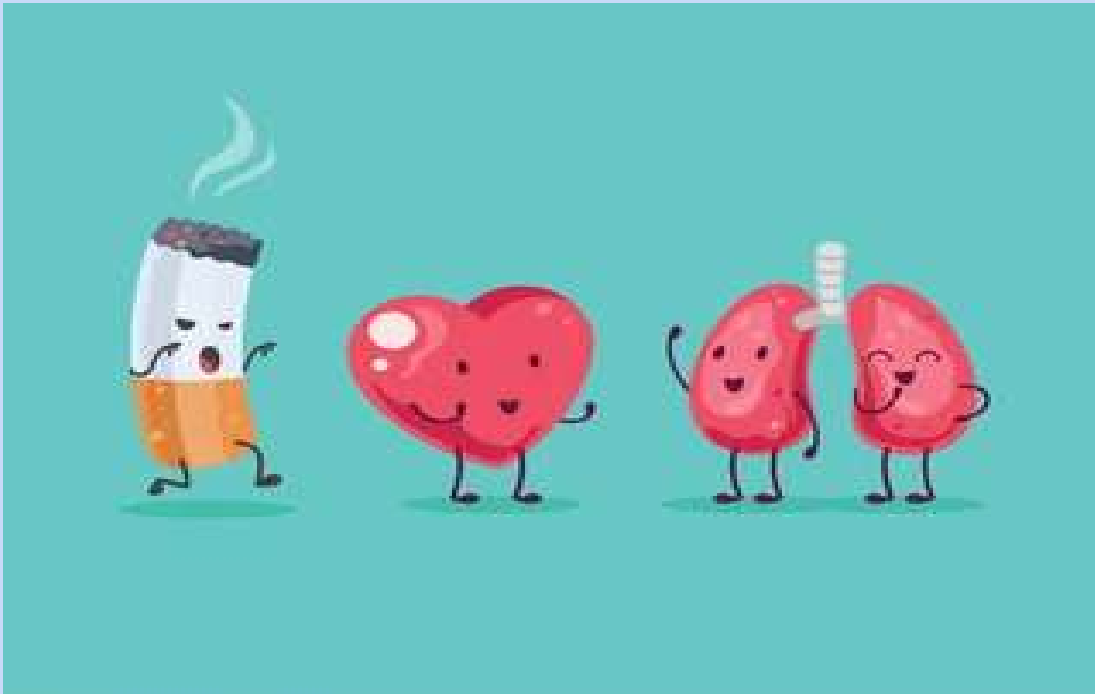
Grade 8, Age 13-14, 50 participants

Secondary

42275

William G. Enloe High School

North Carolina



Lesson Plan Narrative:

Goal:

Students should be aware of the risks and long-term effects associated with smoking and vaping and how peer pressure relates to it. Students should also know about the effects that lung and heart diseases have on your body, and how to prevent them.

Objectives:

At the end of the lesson, students should be able to...

- Understand how to prevent Heart and Lung diseases.
- Know in-depth the characteristics of Heart and Lung Diseases.
- Distinguish warning signs of peer pressure and how to avoid it.
- Understand how harmful smoking and vaping can be for your body.

Plan for Instruction:

- Introduction - We will briefly introduce ourselves to the students and inform them of what we are going to be talking about in the lesson.
- Pre-test - We will administer a short online pre-test for the students. These questions will be based on general information regarding smoking/vaping and peer pressure as well as Heart & Lung Diseases.
- Powerpoint Presentation - This presentation will cover our learning objectives.
- Webquest - Students will be provided with a website that we created to fill out a webquest worksheet covering what we talked about in the powerpoint and more.
- Post Test - We will do a live Kahoot game at the end of the lesson. This will show us how well students comprehend the material they were taught in the lesson.

- Presentation Evaluation - The students will fill out a google form about how they thought our presentation was while turning in their work, and any feedback they had for us.

Supportive Information:

What is Heart Disease?

Heart disease, also known as Cardiovascular disease, is a range of conditions that involve tapered or blocked blood vessels which can lead to heart attacks, chest pain, and strokes. The various chemicals in cigarette and vape smoke cause the cells in the blood vessels to become irritated and swollen. This narrows the blood vessels.

Causes & Symptoms of Heart Disease:

- Many types of Heart Disease can be prevented with healthy lifestyle choices.
- Smoking is a major cause of Cardiovascular disease, as well as obesity.
- Symptoms include tightness of the chest, shortness of breath, weakness in arms and legs, deteriorated heart and lung condition, and lower functioning capability.

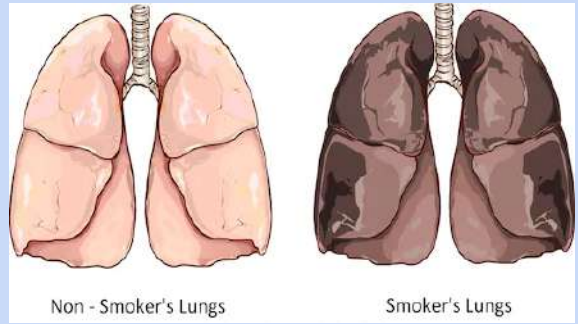
What is Lung Disease?

Lung disease relates to disorders that affect our lungs, which allow us to breathe. Breathing problems generated by lung disease can prevent the body from getting a sufficient amount of oxygen. There are multiple types of lung diseases, the most common type that is associated with smoking is called COPD (chronic obstructive pulmonary disease). The chemicals in smoking products can decelerate lung growth, increasing the risks of COPD.



Causes & Symptoms of Lung Disease:

- Trouble breathing and feeling like you're not getting enough air.
- Decreased ability to exercise.
- A continuous cough, coughing up blood or mucus.
- Pain or discomfort when breathing in or out.
- Smoking is the number one cause of lung diseases.



**ONE PERSON
DIES**
EVERY 4.5 SECONDS
FROM A TOBACCO-RELATED DISEASE.

ASH
ACTION ON SMOKING & HEALTH

That's 13 people per minute.

Statistics:

- “Nearly 8 out of 10 COPD deaths are a result of smoking.” (CDC)
- Cardiovascular disease is the largest cause of death in the United States.
- Cigarette smoking kills more than 480,000 Americans each year.

% of people aged ≥ 18 years who reported constant cigarette use

By Age Group (yrs)	Percentage of people that smoke
18-24	8.0%
25-44	16.7%
45-64	17.0%
≥ 65	8.2%

Lesson Outline:

Introduction: (2 minutes)

We will introduce ourselves to the students and tell them the goal and the objectives of the lesson we will be teaching them and how we will be presenting it.

Pre-Test: (5 minutes)

Questions based on general information will be displayed on the powerpoint, and students will be asked to either type their answers in the chat or unmute themselves and answer. This test will be used to see what they know about this topic already.

Powerpoint Presentation: (20 minutes)

Our presentation will inform the students with general information about Lung and Heart diseases, smoking/vaping, and peer pressure. Real-life scenarios and connections will be included in the presentation. They will fill out some guided notes based on powerpoint.

Webquest: (15 minutes)

Students will be given an electronic worksheet that they have to complete based on a website we created. The website will consist of more in-depth information about our topic and students will have to navigate through the website to find the answers to the worksheet. This will be turned in through a google form.

Post-Test: (10 minutes)

This test will be administered using Kahoot. Students can use any device they have to play and the test will consist of 14 questions based on what we covered in the lesson.

This test will convey how much information the students grasped during the presentation and how well they understood it.

Feedback: (5 minutes)

At the end of the lesson, we sent the students a google form to turn in their Notes and Webquest worksheet. The form also included a feedback section where students could critique our lesson and presentation skills to provide their feedback on what they enjoyed and learned in the lesson and what we could improve on.

Materials:

Presentation:

LUNG AND HEART DISEASE
By: TANUJA RAVI AND GURUJA YADAV

OBJECTIVES

- UNDERSTAND HOW TO PREVENT HEART AND LUNG DISEASES.
- KNOW IN DEPTH THE CHARACTERISTICS OF HEART AND LUNG DISEASES.
- DISTINGUISH WARNING SIGNS OF PEER PRESSURE AND HOW TO AVOID IT.
- UNDERSTAND HOW HARMFUL SMOKING AND VAPING CAN BE FOR YOUR BODY.

PRE-TEST
Type your answers in the chart

1. WHAT ARE SOME CAUSES OF LUNG AND HEART DISEASE?
SMOKING
AIR POLLUTION
OBESITY

2. TRUE OR FALSE: IS A CONTINUOUS COUGH OR COUGHING UP BLOOD A SYMPTOM OF LUNG DISEASE?
TRUE ✓

3. HOW MANY PEOPLE DO YOU THINK DIE FROM CIGARETTE SMOKING YEARLY?
OVER 480,000 PEOPLE A YEAR!!

4. WHAT DO YOU THINK IS THE LEADING CAUSE OF DEATH IN THE UNITED STATES?
CARDIOVASCULAR DISEASE

5. WHAT'S THE PERCENTAGE OF TEENAGERS THAT ACTIVELY SMOKE/VAPE?
8%

6. HAVE YOU HEARD OF COPD? IF SO, WHAT DOES IT STAND FOR?
CHRONIC OBSTRUCTIVE PULMONARY DISEASE

7. IF ONE YOUR PEERS INVITES YOU VAPE WITH THEM, HOW AND WHAT WOULD YOU DO?
POLITELY REFUSE AND DON'T GIVE IN JUST BECAUSE THEY ARE YOUR FRIEND. TRY TO GET AWAY FROM THE SITUATION

8. TRUE OR FALSE: VAPING IS LESS HARMFUL THAN SMOKING
TRUE, BUT IT'S STILL HARMFUL ✓

9. WHAT PART OF YOUR BODY DOES NICOTINE AFFECT?
THE BRAIN

10.

TRUE OR FALSE:
WHEN YOU STOP SMOKING
YOUR HEART REPAIRS
ITSELF IMMEDIATELY

TRUE, BUT IT CAN
TAKE UP TO 15
YEARS TO FULLY
RECOVER!!

HEART DISEASE

Heart disease (AKA Cardiovascular disease), is a range of conditions that involve **blocked** blood vessels which can lead to heart attacks, chest pain, and strokes.

The various chemicals in cigarette and vape smoke cause the cells in the blood vessels to become **swollen**. This narrows the blood vessels which leads to various heart conditions.




CAUSES & SYMPTOMS

- Smoking
- Obesity/Overweight
- High blood pressure and cholesterol levels



- Tightness of the chest & shortness of breath
- Weakness in arms and legs, lower functioning capability.
- Deteriorated heart and lung condition


TREATMENT



LUNG DISEASE

Lung disease relates to disorders that affect our lungs, which allow us to breathe.

Breathing problems generated by lung disease can prevent the body from getting the **sufficient** amount of oxygen.



CAUSES & SYMPTOMS

- Trouble breathing and feeling like you're not getting enough air.
- Decreased ability to exercise.



- A continuous cough, coughing up blood or mucus.
- Smoking is the number one cause of lung diseases.

TREATMENT



STATISTICS




> 5,000,000



ONE PERSON DIES EVERY 4.6 SECONDS FROM A TOBACCO-RELATED DISEASE.



PEER PRESSURE



What do you think Peer Pressure looks like?



Dictionary: peer pressure

peer pressure


AT THE END OF THE DAY, IT IS YOUR RESPONSIBILITY TO PICK BETTER CHOICES, NOT FOR ANYBODY ELSE, BUT FOR YOURSELF.

HOW TO HANDLE PEER PRESSURE

- Pay attention to how YOU feel
- Plan ahead
- Talk to the person who is pressuring you
- Have friends with similar values and beliefs
- Get support from a trusted adult
- It is **OK** to say no!

WHAT WOULD YOU DO?

You walk into the bathroom and see your friends vaping. They see you and invite you to join them. They hand you a vape but you kindly refuse the offer. But then they say that if you don't join them, they'll accuse you of vaping to the principal. What do you do?



25% OF HIGH SCHOOL STUDENTS IN THE UNITED STATES VAPE REGULARLY

12% OF STUDENTS ARE DAILY USERS

That's a lot of users!

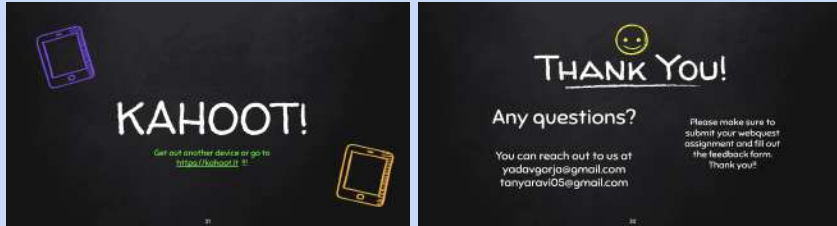
TEENS FACE MUCH MORE PEER PRESSURE WITH VAPING THAN ADULTS, MAKING IT HARDER TO GIVE UP THE SOCIAL STATUS THAT CAN COME WITH VAPING

WEBQUEST

Go to this link:

COMPLETE THE WEBQUEST ASSIGNMENT USING THIS WEBSITE:





Heart & Lung Disease Notes

Please fill in the guided notes based on the presentation:



1. Heart disease is a range of conditions that involve _____ blood vessels which can lead to heart attacks, chest pain, and strokes. The various chemicals in cigarette and vape smoke cause the cells in the blood vessels to become _____.
2. Some causes of heart disease are: smoking, _____/_____, and high blood pressure and cholesterol levels. Some symptoms are: Tightness of the chest and shortness of breath, _____ capability, and _____.
3. The most recommended methods of treatment include: improving your diet and habits, taking cholesterol-lowering drugs, blood thinners, and beta-blockers.
4. Lung disease relates to disorders that affect our lungs, which allow us to breathe. Breathing problems generated by lung disease can prevent the body from getting the _____ amount of _____.

5. Some causes of lung disease are: Trouble breathing and feeling like you're not getting enough air and _____ . Symptoms include a continuous cough, coughing up blood and mucus.
6. Currently, there is no cure for Lung Disease. However, treatment options are: Oxygen therapy, surgery, medicines, specific lifestyle changes, and quitting smoking.
7. What is the definition of peer pressure? _____
_____.

Heart & Lung Disease Webquest

Fill in the webquest while navigating through the website.

Click on the **Peer Pressure** Page and answer the following questions:

1. How should you handle peer pressure? (List all the points below)
 - a. .
 - b. .
 - c. .
 - d. .
 - e. .
 - f. .
2. Read the given scenario and answer what you think should be done and why:

Next, navigate to the **Vaping** Tab under the **Peer Pressure** Page to answer the

questions:

3. What does Nicotine do to your brain?

4. Describe what Nicotine addiction does to your body:

Navigate to the **Lung & Heart Disease** tab to answer the questions.

5. What do the chemicals inside cigarettes and vapes do to your:

a. LUNGS- _____

b. HEART- _____

Navigate to the **Get Help** tab and:

6. List the ways you can deal with addiction-

a. .

b. .

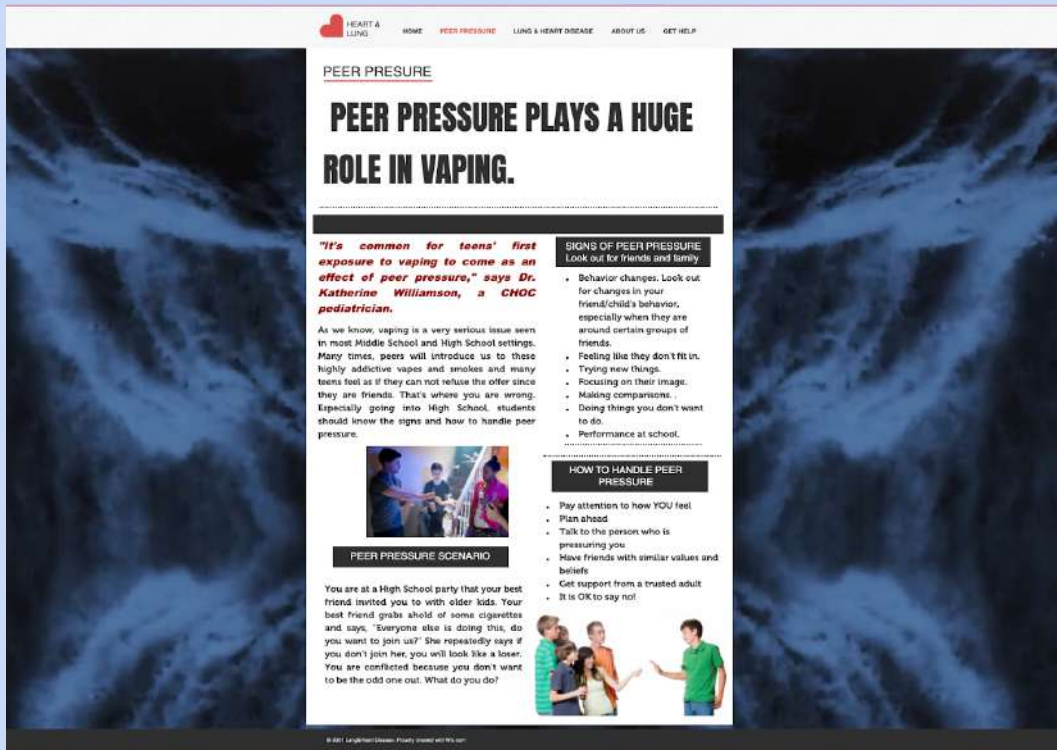
c. .

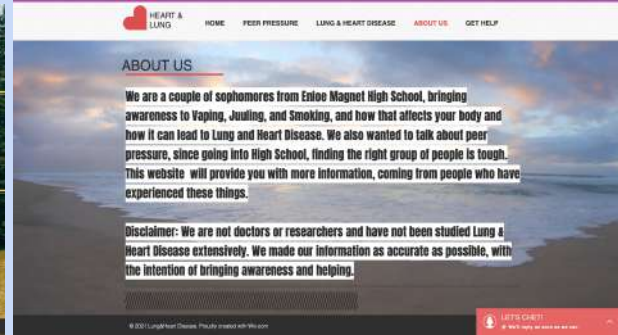
d. .

e. .

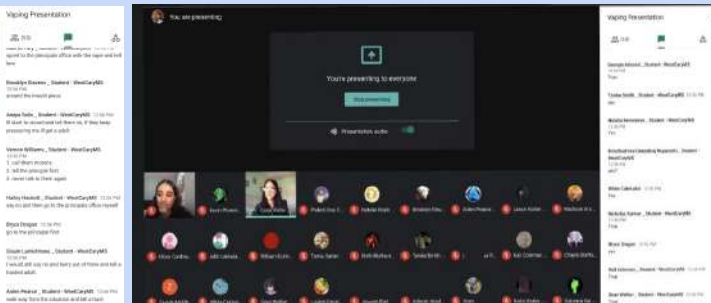
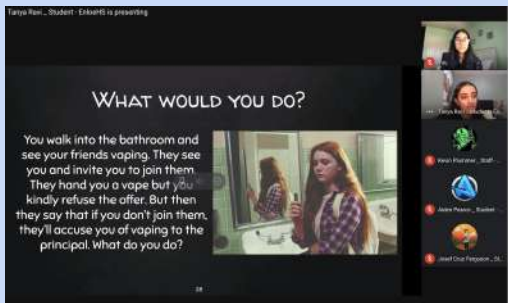
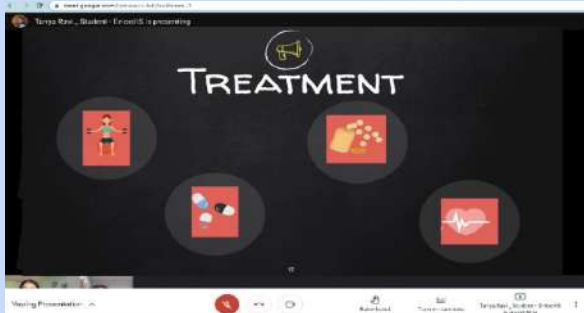
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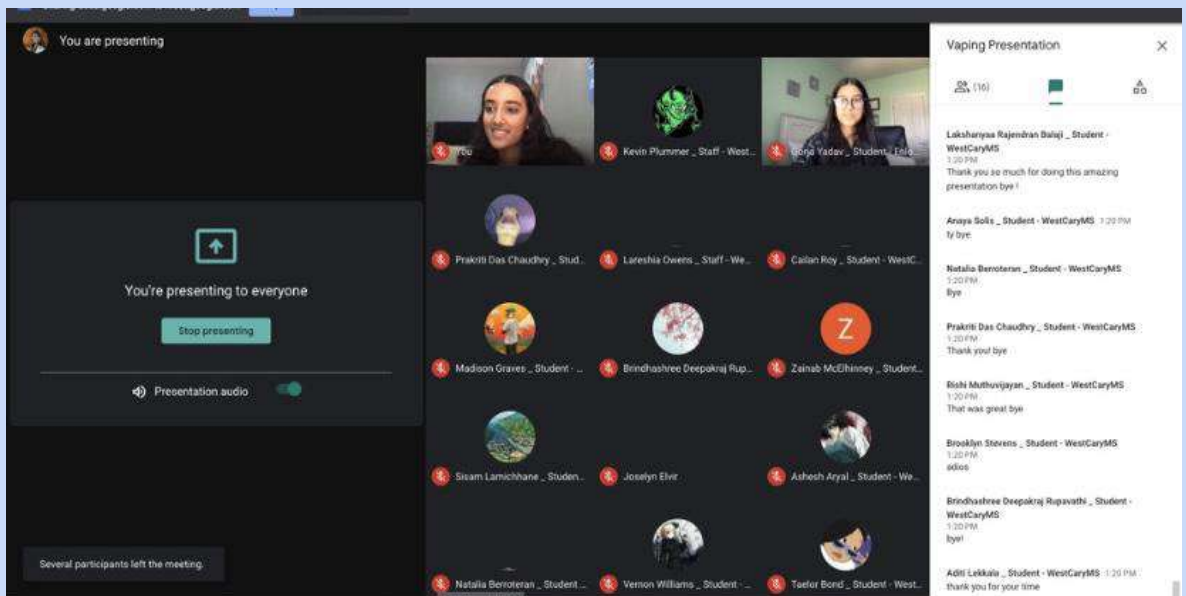
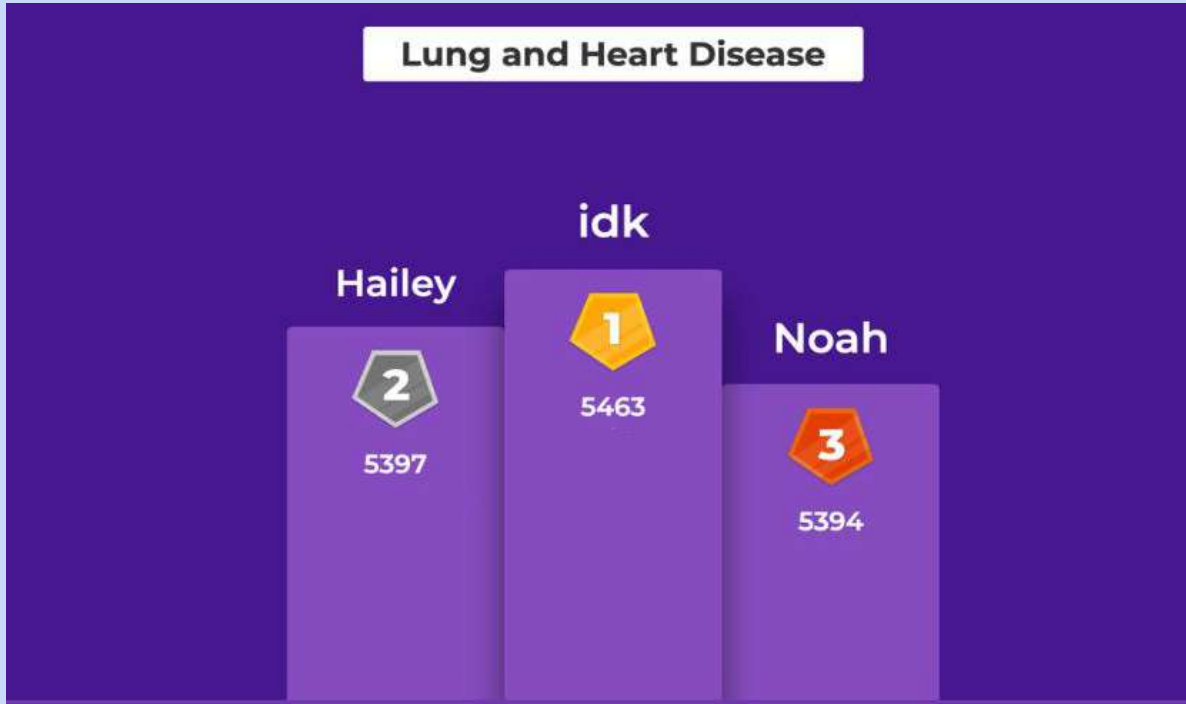
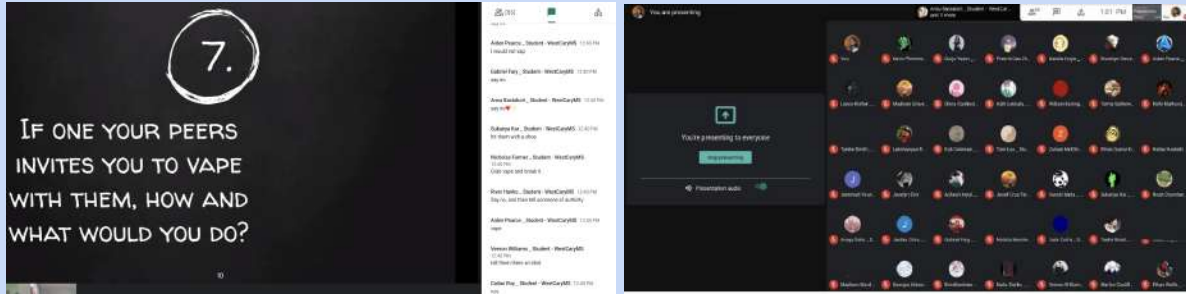
<https://heartandlung.wixsite.com/lung-heart-disease>





Photographs of the Lesson:





CAUSES & SYMPTOMS


- ✗ Trouble breathing and feeling like you're not getting enough air.
- ✗ **Decreased ability to exercise.**




- ✗ A continuous cough, coughing up blood or mucus.
- ✗ **Smoking** is the number one cause of lung diseases.

20

What do you think Peer Pressure looks like?



26

Vaping Presentation

(53)

Rishi Muthuvijayan _ Student - WestCaryMS
12:53 PM
Having too much work

Sisam Lamichhane _ Student - WestCaryMS
12:53 PM
friends forcing you to do something

Georgia Almond _ Student - WestCaryMS
12:53 PM
doing something you dont want to

Nicholas Farmer _ Student - WestCaryMS
12:53 PM
Pushing someone passed their bandories

Aiden Pearce _ Student - WestCaryMS 12:53 PM
do it do it


Hailey Hackett _ Student - WestCaryMS 12:53 PM
friends trying to make you do something you dont want to do

Anaya Solis _ Student - WestCaryMS 12:53 PM
when one friend dosent want too and the others pressure you to do it

Brooklyn Stevens _ Student - WestCaryMS
12:53 PM
forcing someone to do something that is unwanted


5.

WHAT'S THE PERCENTAGE OF TEENAGERS THAT ACTIVELY SMOKE/VAPE?



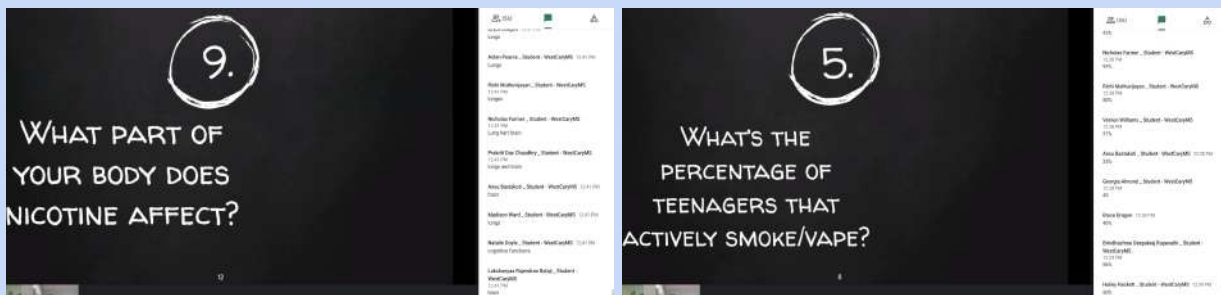
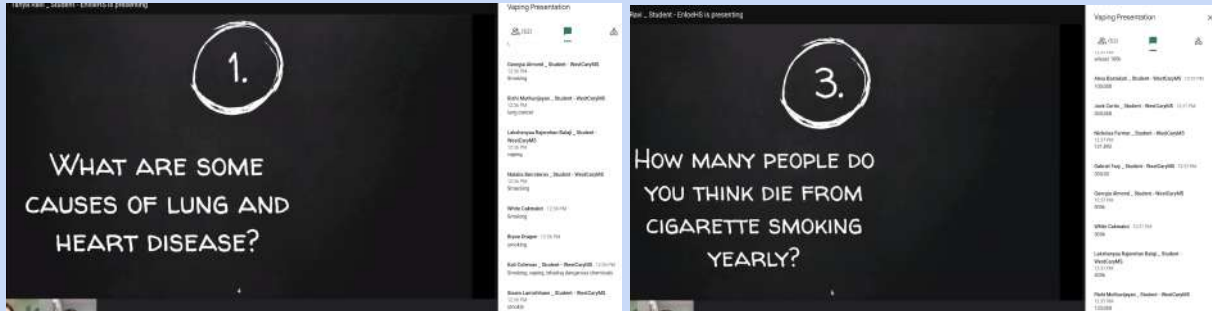
9.

WHAT PART OF YOUR BODY DOES NICOTINE AFFECT?



Feedback Tools

Pre-Test (Presentation) Answers:



Kahoot (Post-Test):



More than 5 million Americans die from heart and lung disease every two years



True
 False

Peer Pressure can influence



all of the above
 alcohol and drug use

the way you dress and act
 academic performance

Statins can lower your risk of having heart attacks by up to ___%?



25%
 50%

75%
 10%


What is not a way to handle peer pressure?



have friends with similar beliefs and values
 talk to the person who is pressuring you

say yes to everything they are saying
 get support from a trusted adult

Which of these are not a treatment for heart disease?



inhaler/bronchodilator
 blood thinners

statins
 improving lifestyle

Lung disease is more common in men



True
 False

How many teens use e-cigarettes daily?



5 million
 3,000

480,000
 1 million

What does nicotine affect in the body?



brain development
 physical growth


all of above
 emotions

The chemicals inside vapes and cigarettes cause your lungs to become inflamed



True
 False

Heart disease is a range of conditions that involve inflamed blood vessels



True
 False

Which of these are not a sign of peer pressure?



behavior changes
 feeling like they fit in

comparing yourself with others
 focusing on their image

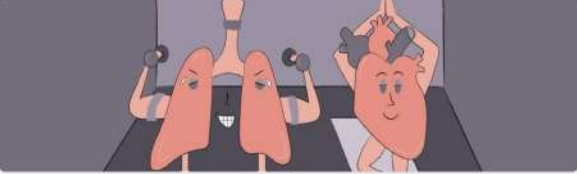
When you're addicted but aren't vaping, what happens?



the nicotine level in your bloodstream drops
 the nicotine level in your bloodstream rises

Add answer 3 (optional)
 Add answer 4 (optional)

Notes/Webquest Turn In & Student Evaluation:



Webquest/Notes turn-in

Thank you for listening and participating in our presentation today 😊

Please turn in your finished Webquest worksheet file here!

The name and photo associated with your Google account will be recorded when you upload files and submit this form.

Not gryadav@students.wcpss.net? [Switch account](#)

*** Required**

Name *

Your answer

Upload worksheet here *

[Add file](#)

What was something new you were able to take away from today's lesson? *

Your answer

What do you think we could've done better in our lesson? *

Your answer

Grade our presentation: *

1 2 3 4 5 6 7 8 9 10

*

4: Presentation is clear, paced properly, spoken with expression, and enthusiasm	3: Presentation is audible, paced somewhat properly, spoken with some expression, and inconsistent eye contact	2: Presentation is barely audible, too fast/slow, little expression, and poor eye contact	1: Presentation is not audible, spoken way to fast/slow, no expression, and no eye contact
Presentation Skills <input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are your thoughts on our webquest/website on a scale from 1-10? *

1 2 3 4 5 6 7 8 9 10

Could you explain why you chose your previous answer? *



Your answer

Filled out Student Notes and Webquest Worksheets:

Name: Aiden Pearce
Date: 3/11/21

Heart & Lung Disease Notes

Please fill in the guided notes based off of the presentation:

- Heart disease is a range of conditions that involve **blocked** blood vessels which can lead to heart attacks, chest pain, and strokes. The various chemicals in cigarette and vape smoke cause the cells in the blood vessels to become **swollen**.
- Some causes of heart disease are: smoking, **Obesity/Overweight**, and high blood pressure and cholesterol levels. Some symptoms are: Tightness of the chest and shortness of breath, **lower functioning capability**, and **Deteriorated heart and lung conditions**.
- The most recommended methods of treatment include: improving your diet and habits, taking cholesterol lowering drugs, blood thinners, and beta blockers.
- Lung disease relates to disorders that affect our lungs, which allow us to breathe. Breathing problems generated by lung disease can prevent the body from getting the **sufficient** amount of **oxygen**.
- Some causes of lung disease are: Trouble breathing and feeling like you're not getting enough air and **decreased ability to exercise**. Symptoms include a continuous cough, coughing up blood and mucus.
- Currently, there is no cure for Lung Disease. However, treatment options are: **Oxygen therapy, surgery, medicines, specific lifestyle changes, and quitting smoking**.
- What is the definition of peer pressure? **Influence from members of one's peer group.**

Name: Brindha
Date:

Heart & Lung Disease Webquest

Fill in the webquest while navigating through the website.

Click on the **Peer Pressure Page** and answer the following questions:

- How should you handle peer pressure? (List all the points below)
 - Pay attention to how you feel
 - Plan ahead
 - talk to the person whos pressuring you
 - have friends with the similar values or beliefs
 - get support from a trusted adult.
 - it's OK to say no.
- Read the given scenario and answer what you think should be done and why:
Walk away from the situation and tell a trusted adult.

Next, navigate to the **Vaping Tab** under the **Peer Pressure Page** to answer the questions:

- What does Nicotine do to your brain? **Vaping puts nicotine in your body, which is a type of drug.**
- Describe what Nicotine addiction does to your body: **slow brain development, which affects memory, concentration, learning, self-control, and emotions.**

Navigate to the **Lung & Heart Disease** tab to answer the questions.

- What do the chemicals inside cigarettes and vapes do to your:
 - LUNGS- Your lungs get inflamed and you will experience shortness of breath, excessive coughing, and fevers.
 - HEART- causes plaque to form in your arteries, which stops blood flows and thins arteries.

Name: Brindha
Date:

Navigate to the **Get Help** tab and:

6. List the ways you can deal with addiction-
 - a. . **quit tobacco completely**
 - b. . **commit fully to your quit and create your quit plan**
 - c. . **know what challenges to expect.**
 - d. . **imagine your vape free self and future.**
 - e. . **surround yourself with supportive people who can help you.**

Feedback from two of the students:

What was something new you were able to take away from today's lesson? *

It was DONT VAPE

What do you think we could've done better in our lesson? *

Nothing, it was great! :D

Grade our presentation: *

1 2 3 4 5 6 7 8 9 10

4: Presentation is clear, paced properly, spoken with expression, and enthusiasm

3: Presentation is audible, paced somewhat properly, spoken with some expression, and inconsistent eye contact

2: Presentation is barely audible, too fast/slow, little expression, and poor eye contact

1: Presentation is not audible, spoken way to fast/slow, no expression, and no eye contact

Presentation Skills

What are your thoughts on our webquest/website on a scale from 1-10? *

1 2 3 4 5 6 7 8 9 10

Could you explain why you chose your previous answer? *

Because the webquest was fun, your teaching was fun and I learned things new today.

What was something new you were able to take away from today's lesson? *

I learned the different types of causes and the number of deaths was sad.

What do you think we could've done better in our lesson? *

I think that you guys did great and I think it was a great presentation. I would just like you guys to talk little bit more clearly and that's all.

Grade our presentation: *

1 2 3 4 5 6 7 8 9 10

4: Presentation is clear, paced properly, spoken with expression, and enthusiasm

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Presentation Skills

What are your thoughts on our webquest/website on a scale from 1-10? *

1 2 3 4 5 6 7 8 9 10

Could you explain why you chose your previous answer? *

I chose it because I thought it was good and a detailed presentation. The speech was good with the information in the website and the slides being accurate and it was fun listen. I enjoyed the kahoot!

bye, Have a great weekend!

Reference Page

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