



PLTW Virtual Learning

Medical Detectives

Lesson 20

May 1, 2020



7 & 8 Grade Medical Detectives

Lesson: May 1, 2020

Objective/Learning Target:
Lesson 20, Part 5

Students will be able to explain what an autopsy is and participate in an interactive forensic pathologist autopsy.

Disclaimer: This lesson is optional for anyone who is uncomfortable with this topic.

Warm-Ups:

Quick Write:

What do you know about forensic pathologist?

How many different types of forensic scientists can you name? Remember your previous lessons?

Take a minute to write **WHAT YOU KNOW!**

[One Minute Timer](#)



Lesson Introduction/Background Information:

****Forensic pathologists** -- Are also called medical examiners and they specifically trained physicians who examine the bodies of people who died suddenly, unexpectedly or violently.

****The forensic pathologist is responsible for determining the cause and manner of death which may have been caused by homicide, suicide, accidental, naturally or by unknown causes.**

****In addition, pathologist may seek specialized knowledge and training in the following areas.**

- Toxicology
- Firearms/ballistics
- Trace evidence
- Serology (blood analysis)
- DNA technology



****They also ensure that procedures regarding evidence collection are followed, and coordinate their work with law enforcement operations.**

Practice:

To learn more, watch the video [What Does a Forensic Pathologist Do?](#)

Knowing what a forensic pathologist does and their responsibilities, you have the opportunity to take the next step and participate in an interactive forensics autopsy.

Disclaimer: This assignment is optional for anyone who is uncomfortable with this topic.

The following are steps that a forensic pathologist will perform during an autopsy.

Step #1 - External examination of the body

Step #2 - Expose internal organs

Step #3 - View the internal organs

Step #4 - Removal of organs

Step #5 - Removing the brain

Step #6 - Weighing the organs

Step #7 - Returning organs to the body

Step #8 - Sew up the body



Practice:

Click on the link for the interactive autopsy below and work through the steps of the autopsy [Forensic Pathologist Interactive Autopsy](#).

****Disclaimer:** Remember if you are uncomfortable with this topic, please do not do this activity and move on to the next slide.

On Step #6 they are asking you to weigh the following organs. Please write the weight down for each organ.

Heart _____

Lungs _____

Kidneys _____

Brain _____

Liver _____

Which organ weighed the most? _____

Which organ weighed the least? _____



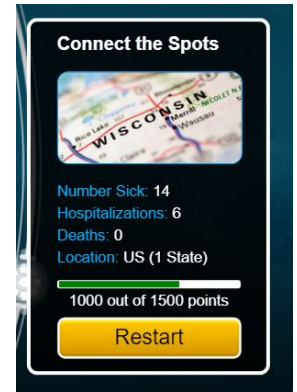
Self Assessment:

Get ready to solve the medical mystery! Go to the following CDC, Center for Disease Control and Prevention, Solve the Outbreak website link below. In this medical mystery, you will be solving a mystery where several people in the State of Wisconsin are getting sick and some of them have had to be hospitalized. What's happening and how is it spreading? That's for you to find out. Good luck solving the mystery!

Directions:

1. Click on the link [Solve the Outbreak](#).
2. Click on Level 1 Outbreaks on the left.
3. Swipe to the right until you reach the Connect the Spots case.
4. Click Start and Accept the Mission
5. Follow the 5 clues and solve the mystery!
6. Enjoy!

****Lesson Disclaimer:** This is a mystery outbreak game website provided by the CDC, Center For Disease Control and Prevention, government website. It offers 12 different medical mysteries. Please do not participate, or continue with this website, if it makes you or anyone else uncomfortable, or upset, in any way. Thank you!



Extend Your Learning/Continued Practice:

Refer back to the interactive autopsy you helped to perform earlier and answer the following questions:

1. During the internal examination, the pathologist drains the intestines, removes any undigested food and feces, and examines the contents of the stomach. What clues could this examination give the pathologist?
2. What are the three abnormalities that autopsies generally test for?



Answer Key:

- 1 Heart -- 270 grams
2. Lungs -- 950 grams
3. Kidneys -- 142 grams (weighed the least)
4. Brain -- 1,325 grams
5. Liver -- 1,400 grams (weighed the most)

