CASE FOUR: Bitter Pill

Go to forensics.rice.edu and click the section “Bitter Pill” to find the answers to complete the worksheet. You will need a username and password to save your place.

Getting to Know the Game:

- In each room, you can talk with characters by clicking on him or her.
- Explore a room by moving the mouse around and finding interactive objects that you can click on.
- To change rooms, click on the location tab at the bottom and choose where to go.
- Before leaving a location, always click the CSI agent to make sure you have finished in that room.

1. Catherine’s Office

*Click on Catherine and answer the following questions.*

1. What happened?____________________________________________________________
2. What gear do you need? _____________________________
   _____________________________

Collect your tools and head to the crime scene.

2. Crime Scene

*Talk to Sara when you arrive.*

1. What do we know about the victim?_____________________________________________
2. Where is the body?_________________________________
   _____________________________

*Record any evidence you find both inside and outside in the graph below.*

<table>
<thead>
<tr>
<th>Evidence Collected</th>
<th>Where It Is Processed In the Lab</th>
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*Talk to the neighbor.*

3. What did Donald Parker see?__________________________________________________
4. What time was that?__________________________________________________________
5. Who lives in the house? _______________________________________________________

Go inside to collect evidence and take pictures.

6. What is significant about puddle shaped burn marks? ____________________________

Talk to Sara to make sure you are finished, then head to the lab to process evidence.

3. CSI Lab

Talk to Hodges for help processing evidence.

A. Process Photos

1. Where do you usually find V-Shaped burn patterns? _____________________________

2. What was the cause of the crazed glass? ________________________________

3. Where was the victim during the fire? ______________________________________

4. Does the puddle pattern confirm use of ignitable fuel?  YES       NO

5. Does the plug tell us if the heater was on or not?  YES       NO

B. Process Flooring Sample

1. What is happening during heating to the floor samples? ________________________

2. What does the gas chromatograph do? _________________________________________

3. What does a peak's height depend on? _______________________________________

4. What abnormal chemical is found in the puddle sample? _____________________

C. Process Space Heater

1. What were the heater controls set on at the time of the fire? ____________________

2. What is the most common cause of residence fires? ____________________________

3. What does the bead demarcation tell us? _____________________________________

D. Process Matches

1. What method did you use to collect fingerprints? ______________________________

2. Did the IAFIS find a match to the print?  YES       NO

3. Who does the fingerprint belong to? _________________________________________

Ask Hodges if you are done in the lab, then move on to question the neighbor.

4. Neighbor's House

1. Why was the neighbor at Trevor's house? ________________________________

Look for any other interactive objects in the room, then ask Sara if you are done before moving on to the next activity.

Worksheet created by Anna Grace Davis, Student at Harding University, Searcy, Arkansas.
5. Morgue
1. What does Robbins believe to be the cause of death? ____________________________
2. What time did the victim die? ____________________________

*If you are squeamish, do not perform the autopsy.
3. What did you find in the victims airways? ____________________________
4. At what point on the scale of 1-100 for carbon monoxide will a person die?___________

Write any evidence you find in the graph below.

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Exit to the hallway by clicking the left side of the room.

6. CSI Lab
A. Process Blood (ELISA)
   1. What does the ELISA test actually test for? ____________________________
   2. What did the victim have in his blood, according to ELISA? ____________________________

B. Process Blood (Gas Chromatography - Drugs)
   1. Why is a standard used in this process? ____________________________
   2. What drug was found in the victim’s blood (not the standard)? ____________________________
   3. Was there enough of the drug in his blood to kill him? ____________________________

C. Process Blood (Gas Chromatography - Alcohol)
   1. What area of the vial are you testing for alcohol? ____________________________
   2. Is there ethanol present in the blood? YES     NO
   3. What was the victim’s BAC? _____ Could that have killed him? ____________________________

D. Process Blood (Spectrophotometry)
   1. What will this test analyze? ____________________________
   2. What principle is spectrophotometry based on? ____________________________
   3. Did the victim die from carbon monoxide poisoning? ____________________________

Ask Hodges if you are done before moving to a new location.
7. Crime Scene

Search the bathroom for any evidence of oxycodone, and write down any evidence you find.

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Check your message from Catherine.

1. Using context clues, define alibi: ________________________________________________

8. Lina Perez’s House

Talk to Lina to learn more about the oxycodone.

1. What is Lina’s relation to the victim’s girlfriend? ________________________________
2. How does Lina feel about Trevor? _______________________________________________

Read your message from Brass, then move to the next location.

9. Hospital

Enter the patient room in the hallway.

1. How does Natalie claim the fire started? __________________________________________
2. Did Natalie know anything about the gasoline? _______ What about the oxycodone? ______

Leave Natalie’s room and find the doctor’s office on the right.

1. What does the doctor tell us about Natalie’s condition? __________________________
2. The report reveals that what was in Natalie’s blood? ______________________________

After reading the report, talk to the doctor again.

1. What plant do opiates derive from? ______________________________________________
2. What system does oxycodone act upon? ___________________________________________
3. What is the process of increasing and decreasing pain relievers called? ___________
4. What happens to painkiller levels in the brain when a person without a prescription takes oxycodone? _________________________________________________________________
5. Name two side effects of withdrawal: ____________________________________________

Read your message from Catherine and wrap up the investigation.

10. Interrogation Room

1. What did Natalie reveal about Trevor’s oxycodone use? ____________________________
2. Why did Natalie start the fire? _________________________________________________

Worksheet created by Anna Grace Davis, Student at Harding University, Searcy, Arkansas.
3. What was Natalie charged with? __________________________________________________

Congratulations! You may now move on to another difficult cases. Return to the homepage and select either Burning Star or Fatal Interactions. Make sure you get the appropriate worksheets for the case you select.