

AP Biology Summer Reading - *The Hot Zone* by Richard Preston

You will be reading a book that is “. . . bloodcurdling, and based on truth.” The book is about the Ebola virus. Before you read the book read the attached information about viruses. If you have questions about the assignment, the virus handouts or about the questions below, email me: catherine.raziano@zacharyschools.org

As you read the book listed above briefly summarize the chapters in your new AP notebook so that you will not have to reread the book **before the Virus test**. In your notebook, also list and define new scientific terms from the book.- this is for you and will not be graded.

Read the questions below before you read the book listed above. Answer the questions listed below on a separate piece of paper, typed or hand-written. Your responses to the questions are **due on the first day** of class and will be graded.

We **will discuss the book and viruses on the 1st day of class** so bring your notes, the book, and the virus handout to school for the 1st day of class. Have a great summer – hope you enjoy the book as much as I did!! See you soon!

1. Describe Monet's symptoms. Did they appear all at the same time or little by little?
2. What would you have done if you had been a passenger on the plane with Monet? Explain why.
3. What did Dr. Musoke do that contributed to the spread of the disease? What would you have done in his situation?
4. On p. 39, the author lists four possible intermediate hosts. Make the case for or against any two of them.
5. How did Gene Johnson culture the sample of Peter Cardinal's blood serum? Describe the three steps of this experimental protocol.
6. Describe the experiment that confirmed that Ebola could travel through the air.
7. Why do scientists keep diaries of their lab notes?
8. How did they culture the virus? There were at least four different samples, what were they?
9. Write a task list for the steps Geisbert uses in preparing a sample for the EM.
10. Peter thinks Marburg is not easy to catch. Dan thinks it could be airborne. Make a list of the evidence that would support each man's viewpoint.
11. How could Jarhrling test to see if the monkey virus reacted in humans? What did it mean if the cells were glowing?
12. How would you answer Gen. Russell's questions about evidence for the virus being airborne? Summarize Col. Nancy Jaax's arguments. Did she miss anything?
13. Tom resolves to keep working even if he tests positive. How would you react under these circumstances? What other plans would you make besides plans about the research you are doing?
14. During the "Decon" chapter, how many samples did they collect? Why this many?
15. How and where does a virus strain "hide?" Explain.

16. Given what you know about this case and what happened to the players, if you were President who would you have promoted and who would have gotten fired? Why?
17. What makes Kitum Cave “a nice place for a virus to jump species?”
18. Ebola Zaire arrives. Imagine that there’s an outbreak of Ebola Zaire in a local hospital and it threatens to spread throughout the whole of your county. The media finds out and begins broadcasting it to the people. People begin to panic. You play the Mayor. Your present job is to give a press conference to calm the citizenry. Include a detailed step-by-step plan on how to prevent the spreading of the virus, what you intend to do about sick patients in the hospital, along with the staff, possible reasons why the outbreak occurred in the first place, and how to prevent another such incident.
19. Based on this true story of Ebola, what is your opinion about viruses – are they living or non living – use facts to support your answer.
20. Based on the information in the book and in the handout, what type of viral life cycle do Ebola have? What facts from the book support your statement?