9th Grade Summer Reading Assignment ELA

Please Type all assignments and email to ewright@effingham.k12.ga.us by August 3, 2017 EVEN if you do not have English until Second Semester.

*The Hot Zone* by Richard Preston an Interdisciplinary (English and Biology) Study on Viruses

**Synopsis:** The virus kills nine out of ten of its victims. Its effects are so quick and so gruesome that even biohazard experts are terrified. It is airborne, it is extremely contagious, and it is about to burn through the suburbs of Washington, D.C. Is there any way to stop it?

This doomsday scenario confronted a biohazard SWAT team struggling in secret to stop the outbreak of an exotic "hot" virus at an Army research facility outside Washington. "The Hot Zone" tells the dramatic story of their dangerous race against time, along with an alarming account of how previously unknown viruses that have lived undetected in the rain forest for eons are now entering human populations.

Read the book *The Hot Zone* by Richard Preston during the summer and complete both part 1 and part 2 assignments. As you read the book, you will want to take a few notes and answer the questions associated with the reading – it is possible you may need to do some internet research to answer a few of the questions.

**Questions:**

1. Are viruses living or non-living? Use characteristics of living things to justify your answer.
2. What are the viruses written about in *The Hot Zone*? How are they classified?
3. How are viruses named? Give some examples – What was the origin of the Marburg virus?
4. Why aren’t all viruses as deadly as Marburg and Ebola?
5. How is Marburg similar to Rabies?
6. Why do viruses typically affect only one or a few species?
7. What is it about the life cycle of viruses that allow them to evolve rapidly and “jump to a different host species?”
8. What are the three standard ways to “stop” a virus?
9. The book describes several places where virus outbreaks have taken place around the world. Where are these places and how might all be connected?
10. What conditions may have facilitated the jump of the virus responsible for AIDS to humans near Lake Victoria?
11. A comment is made in the book that every major city in the world is only 24- hours away
from exposure to an emerging virus. Reference is made to a network that links all of the cities of
the world. What is the author referring to?


13. Should blood samples be shipped around the world for the study of infectious diseases? Why
or why not? Site an example from the book that might have had the potential to be disastrous in
terms of exposure to a hot agent.

14. Describe the roles played by the following people in The Hot Zone, and explain, if in your
opinion, they acted responsibly.
   a. Dan Dalgard (head of the Monkey Quarantine Facility)
   b. C. J. Peters (Director of USARMIID)
   c. Nancy Jaxx (Veterinarian with cut palm exposed to monkey blood in level 4)
   d. Jerry Jaxx (responsible for monkey euthanasia)
   e. Nurse Mayinga (who in seeking treatment potentially exposed
   many people to her
   strain of Ebola)
   f. Researchers Peter Jahrling and Tom Geisbert (who whiffed the monkey tissue and
   chose not to disclose the information.)

15. Should the public be notified of potential risks and dangers? At what point in the story should
have an announcement have been made?

16. What are the justifications for importing primates to the United States for research? What are
the possible risks and benefits?

Safety in the Laboratory

17. How might Dr. Shem Musoke have contracted the virus? How might the others who assisted
in the care of Charles Monet have avoided infection?

18. On Page 185, Peter Jarhling and Tom Giesbert “whiffed” the culture flask.
Why? What’s so dangerous about this?

19. Why is it important to observe all safety rules even in the high school laboratory regardless
of whether it seems necessary or not?

Food for thought

20. Preston quotes Peter Jarhling on page 366 “Why is the Zaire stuff hot for humans? Why isn’t
Reston hot for humans, when the strains are so close to each other?” Propose some answers to
explain these observations. 21. The last chapter takes you and the Author back to Kitum Cave.
What do you suppose Preston intended to accomplish by his visit to Kitum Cave? Would you
enter Kitum Cave in a space suit - without a spacesuit?

22. Are emerging viruses such as Ebola a threat to human safety in light of the recent attention
Assignment Part Two: Choose ONE of the following topics to complete a written essay.

The Rubric for the essay is listed below.

Essay Topic 1

Nancy Jaax is one of the central characters in the Hot Zone. As a female scientist, Nancy encounters several episodes of gender bias.

a. Find examples of roadblocks that Nancy must face due to her gender.

b. One roadblock she faces is being told that that she will neglect her work or her family or both. Has this happened by the end of the book? Explain your reasoning.

c. Do you agree or disagree with her treatment? Support your position.

Essay Topic 2

Preston compares HIV to Ebola throughout the book. Find examples of this comparison in the text and then compare and contrast the two diseases in the following areas:

- Methods of transmission
- How they developed and emerged from the rain forest
- Their fatality and infection rates

Make sure you explain the similarities and differences of each one, and explain how epidemiologists worked to identify, treat, and control the spread of these diseases.

Essay Rubric

1. Content (60 points)
   - Shows a clear understanding of the task with an effective, suitable, defendable thesis statement. (15 points)
   - Significant components of the work are identified and effectively integrated. (15 points)
   - Offers ample, specific, and logical development of ideas in relation to the thesis statement. (15 points)
   - Maintains a clear focus on responding to the specific task throughout the essay (15 points)

2. Organization (15 points)
   - Ideas are effectively organized and logically sequenced with clear paragraph structure throughout. (5 points)
   - The introduction, and conclusion are well-developed and effective. (5 points)
   - Effective transitions are used between paragraphs (5 points)
3. Language (10 points)
- The response demonstrates a good command of language; sentences are varied and word choice is varied and precise. (5 points)
- There are few, if any, errors that distract the reader. (5 points)

4. Formatting (10 Points)
- 12 point Times New Roman Font (1 point)
- Essay uses 1 inch Margins and is double spaced between lines (2 points)
- Header in top left-hand corner with name, class, due date, and essay assignment, page number in the bottom right hand corner (2 points)
- Pages are numbered and labeled with student's last name and different front page.
- Font of page number matches the font of the essay (1 point)
- Essay should have a title that is not "My Essay" or "Outliers Essay" or any version of such (2 points)
- Each new paragraph is indented by using "Tab" only once (1 point)
- Word count is written or typed at the bottom of the page and essay meets word count requirements (600-1200) (1 point)

5. MLA Citations (5 points)
- Essay correctly uses at least 3 quotes from the text and includes a proper works cited page (5 points)

Need Help?
Not sure how to cite? Check out Purdue OWL's tips on MLA in-text citations.