

Science Time

Program Content for November 9, 2016

Read the article “Ebola virus mutation boosted its deadly spread” on page A7 of the Friday, November 4, 2016 edition of The Seattle Times.

Objective/s

- I can explain the role genetic mutations played in the most recent Ebola outbreak.

Next Generation Science Standards (NGSS) connection

- *Disciplinary Core Ideas - Natural Selection:*
 - Natural selection occurs only if there is both (1) variation in the genetic information between organisms in a population and (2) variation in the expression of that genetic information—that is, trait variation—that leads to differences in performance among individuals.
 - The traits that positively affect survival are more likely to be reproduced, and thus are more common in the population.

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. virus
2. epidemic
3. gene
4. mutation
5. outbreak

Comprehension Questions

1. How long did the most recent Ebola virus outbreak last?
2. How many people were infected by Ebola and how many died?
3. How did mutations change the Ebola virus?
4. How did a mutated Ebola virus compare to one that did not carry a mutation?
5. What social factors accelerated the spread of Ebola during the more recent outbreak?
6. Why did scientists determine that Ebola virus' with mutations were most likely those responsible for increased deaths?
7. What animal serves as the “reservoir” of Ebola?
8. When a disease-causing virus escapes from its “reservoir” what can happen?
9. Were all mutations found by researchers in the Ebola virus harmful to humans? Explain.
10. Why does the article conclude that the recent scientific findings about the Ebola virus, “appear to be important”? Provide two (2) reasons.

Prompts and Extensions

1. Take a look at the two scientific articles recently published that were used as the basis for the article you just read. [Article 1](#). [Article 2](#).
2. [Read](#) about Ebola survivor, Dr. Ian Crozier, from a previous edition of the Seattle Times and [listen](#) to his experience about conquering Ebola.
3. [Watch](#) this segment about the most recent Ebola outbreak.

Science Time is posted to the Web on Wednesdays. Please share this NIE Science Time program with other teachers. To sign-up for the electronic edition for your class, please register

Copyright © 2016 The Seattle Times Company