MAST@FIU

Biscayne Bay Campus

SUMMER ASSIGNMENT FOR HONORS BIOLOGY

Overview

Miami-Dade County Public Schools recognizes the importance of ensuring that students continue to strengthen scientific and problem solving skills and develop a passion for science beyond instructional requirements. Experience and current research support the idea that students who are actively engaged in scientific inquiry throughout the summer demonstrate improved academic performance during the following school year. Cultivating scientific inquiry helps build problem solving skills and enriches students' knowledge base. In addition, increased independent scientific inquiry helps prepare students to be successful in meeting more rigorous academic standards as schools transition to Science Florida Standards.
Summer scientific inquiry provides students with an opportunity for personal exploration and continued intellectual growth. It serves as an essential component of the instructional process in schools. As stated above, research has shown that students who engage in scientific activities throughout the summer improve academically during the following school year. However, school summer science activities are not intended to be excessive or curtail students' participation in recreational and/or family activities.

Students can choose from the following two options:

OPTION 1
Assignment instructions:
Select 4 different science articles to read from any of the provided websites (listed below) and respond to the questions that appear in the section that follows. The topic of your article selection should be based on *your* interests, though it has to fall within the realm of science (social science, chemical or physical science, biology, ecology, climate science, etc.). All sources must be from this year, and copies of each article should be included in the final assignment to be turned in.

- **Questions to complete on your selected article.**

1. Write out a complete citation of your selected article. A complete citation will include the following information: Author(s), Date of publication, Title (book or article), Journal, Volume #, Issue #, pages.

2. What are at least 5 keywords that you must understand in order to comprehend your article's content? List the 5 words that *you* feel are necessary to understand and define them.
3. What is the main topic of your article? Try to be direct and keep this response to one to two sentences. If you are unable to recap the main topic in just two sentences, then you may write more. But you should strive to be clear and comprehensive in as few sentences as possible.
4. What methods are described in your article? Think about the scope of the study: long term versus short term? Local or global study (where, specifically)? Other data collection methods.
5. What is significant about your article? In other words, what has it done for the study of science? Is it new information? Corrected information about a previous misconception? Life-altering information?
6. Imagine that you are a scientist, what more would you like to learn about the subject presented in the article? How was the scientific method utilized in writing this article/gathering information for the article? How could the scientific method be used to learn more about this topic?

- **List of Approved Websites:**

- https://www.scientificamerican.com/the-sciences/
- https://www.aaas.org/news
- https://www.sciencenews.org/
- https://www.sciencedaily.com/
- http://www.sciencemag.org/news

OPTION 2

Required Reading
Obtain and read The Sixth Extinction: An Unnatural History (ISBN-13: 978-0805092998) by Elizabeth Kolbert.

Book Summary
Over the last half a billion years, there have been five mass extinctions, when the diversity of life on earth suddenly and dramatically contracted. Scientists around the world are currently monitoring the sixth extinction, predicted to be the most devastating extinction event since the asteroid impact that wiped out the dinosaurs. This time around, the cataclysm is us. In The Sixth Extinction, two-time winner of the National Magazine Award and New Yorker writer Elizabeth Kolbert draws on the work of scores of researchers in half a dozen disciplines, accompanying many of them into the field: geologists who study deep ocean cores, botanists who follow the tree line as it climbs up the Andes, marine biologists who dive off the Great Barrier Reef. She introduces us to a dozen species, some already gone, others facing extinction, including the

Panamian golden frog, staghorn coral, the great auk, and the Sumatran rhino. Through these stories, Kolbert provides a moving account of the disappearances occurring all around us and traces the evolution of extinction as concept, from its first articulation by Georges Cuvier in revolutionary Paris up through the present day. The sixth extinction is likely to be mankind's most lasting legacy; as Kolbert observes, it compels us to rethink the fundamental question of what it means to be human.

Assignment

After reading the book, explain in no more than 300 words why you agree or disagree with the author's premise. Cite specific portions of the book in your argument.