

SALESIAN

HIGH SCHOOL

Science/Math Department: Juniors

School Year: 2020/2021

Assignment:

1. Student must access and read the following article: [Climate Change is Decimating the Chinstrap Penguins of Antarctica](#)
2. Based on the information in the article, your knowledge and understanding, please respond to the following questions for each content area. Based on the information in the article, your knowledge and understanding, please respond to the following questions for each of the listed content area. **Answers written must be a minimum of one (1) paragraph (8 - 10 sentences). Students are able to write answers of longer length, if necessary.**

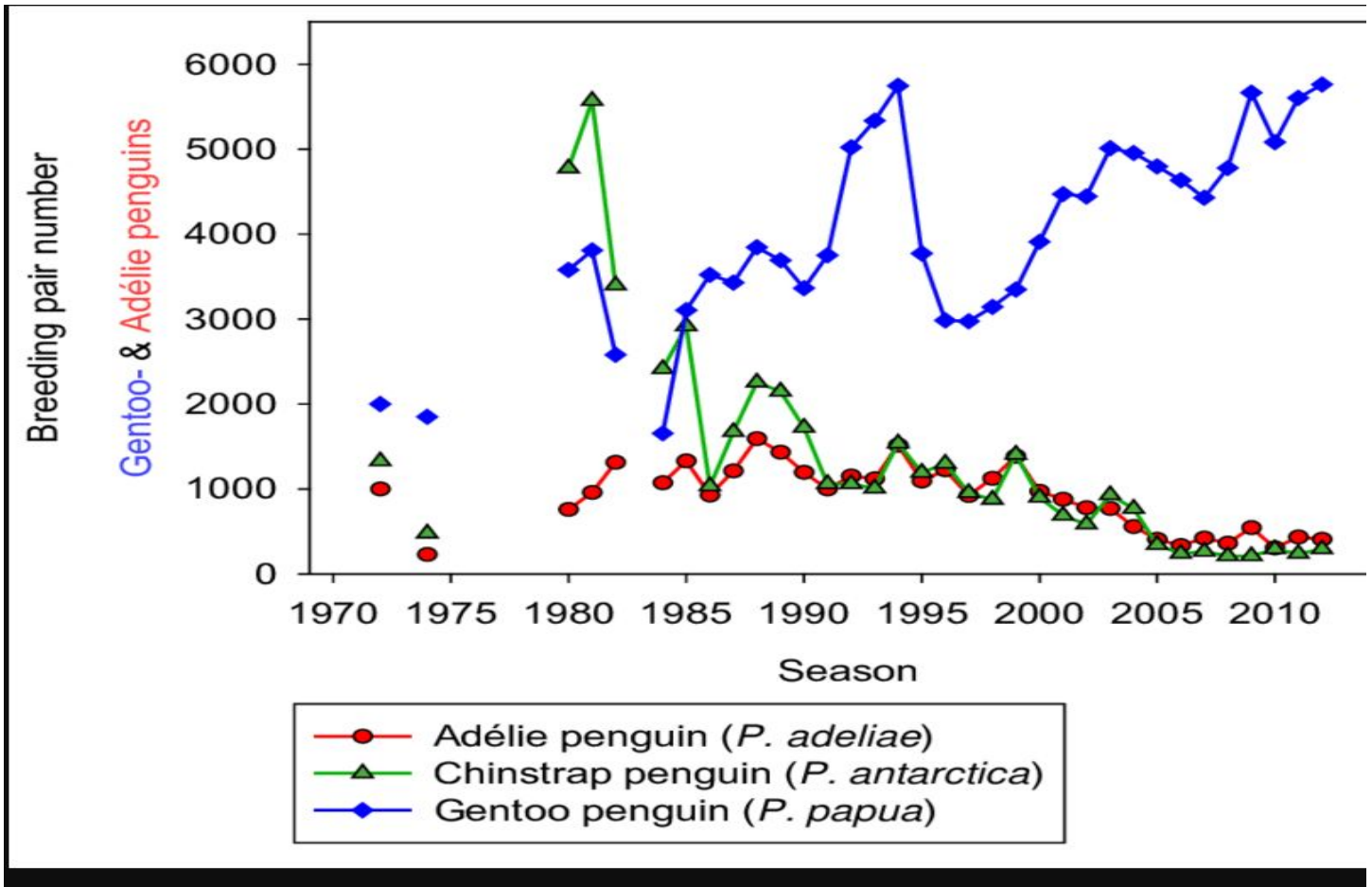
Science

- The Greenhouse Effect is a term used in reference to climate change. What is meant by this reference, "Greenhouse Effect"? Describe the processes involved that cause the Earth's average atmospheric temperature to rise when the CO₂ content is high. Include the terms Infrared radiation, Ultraviolet radiation, absorption, and reflection of light energy in your explanation. How does the planet's atmosphere act like a "greenhouse"? (A diagram could be useful when constructing your written answer.)

Math

- The two graphs listed below provided similar information to the article. Which graph does a better job of conveying the information and why?
- Discuss the differences in the graphs, including the legend and axes.
- Do you think either of the graphs could benefit from a trend line being added? Why or why not?
- Are there any other types of graphs that you think could have done a better job at displaying the information?

GRAPH A



GRAPH B

SHRINKING POPULATIONS OF ADÉLIE AND CHINSTRAP PENGUINS

Number of breeding pairs at study sites

- KEY
- Chinstrap penguins, Admiralty Bay of King George Island
 - Adélie penguins, Admiralty Bay
 - Chinstrap penguins, Cape Shirreff of Livingston Island

