

SALESIAN

HIGH SCHOOL

Science/Math Department: Freshman

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 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.**

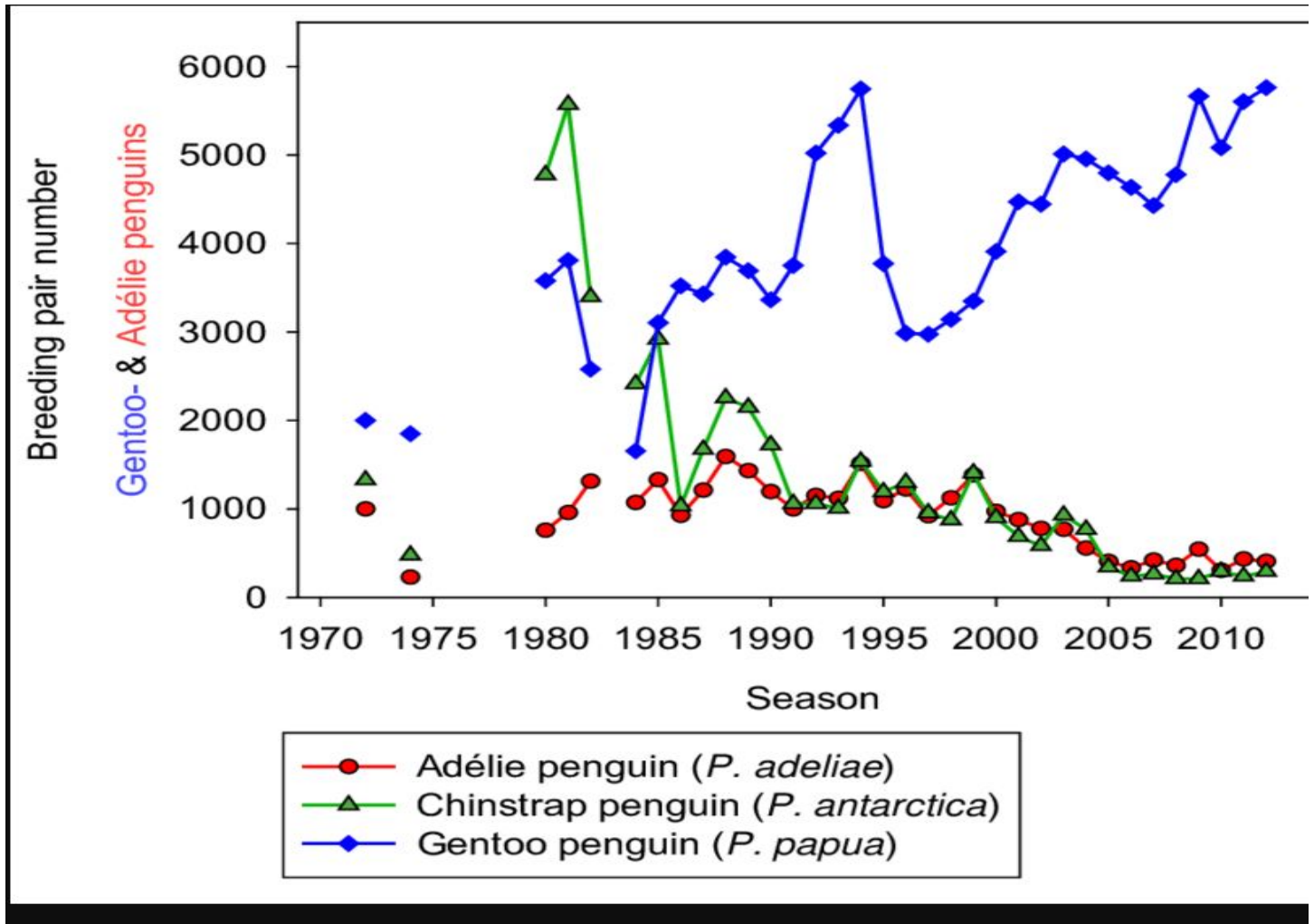
Science

- How is the Chinstrap Penguin well adapted to survive in its Antarctic habitat?
- Why is the Gentoo Penguin less affected by climate change than the Chinstrap Penguin?
- Why is the krill population of utmost importance to the survival of Antarctic populations?

Math

- Which previously learned topics in math do you think researchers would need to know to be able to estimate the population of the Chinstrap Penguins of Antarctica? Provide at least two (2) concrete examples with reasoning for your answer.
- Which of the following graphs (**Graph A and Graph B**) gives a better representation of the information presented and why?
- Do either of the graphs contain any confusing elements (legend, axes, etc.) and what could be done to make the display clearer?

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

