

Name _____ Date _____ Hour _____

FRQ-Chapters 1 and 2

For hundreds of years, clams have been dug up along Fremont Beach for food, first by Native Americans, and these days by tourists. Today, the clam population is at an all-time low, and many scientists agree that clams will inevitably become extinct in Fremont. Dr. Hwang, a marine biologist, believes that in addition to overharvesting, DDT that was dumped into the ocean during the 1950s and 1960s near Fremont Beach could be another factor in the dramatic decrease in the clam population.

- a) Write an argument to explain why the decline in the clam population due to overharvesting could be considered an example of a tragedy of the commons.
- b) Discuss two actions that the government could take to prevent further decline of the clam population due to the tragedy of the commons.

- c) Design a controlled experiment to support or refute the claim by Dr. Hwang that DDT played a role in the clam's demise. Include a detailed description of the experiment including:
- i. a hypothesis
 - ii. the identity of the dependent and independent variables
 - iii. a description of the data to be collected and a description of how controls are to be used in the analysis.