

### AP Free Response Questions (FRQ) How to:

There will be 3 Free Response Questions on the AP Exam. They are worth 40% of the AP Exam grade. You will have 1 hour, 10 minutes to complete these 3 questions. They will be in this format:

- Question 1 will ask students to design and analyze an investigation.
- Question 2 will ask students to analyze an environmental problem and propose a solution using models and representations.
- Question 3 will ask students to analyze an environmental problem and propose a solution using calculations.

As you read and attempt to answer the FRQ below (from the 2013 exam), follow these procedures:

#### In the question:

- Put a box around the action verbs (ex. Identify describe )
- Circle the number (ex. two )
- Underline what is requested (ex. major causes )

Answer the question on the lined sheets provided and be sure to separate each part of the answer with a), b), c), etc.

### **2013 AP<sup>®</sup> ENVIRONMENTAL SCIENCE FREE-RESPONSE QUESTIONS**

4. Biological diversity, or biodiversity, has become a topic of great concern among conservationists. Biodiversity is often used by scientists and policy makers to help determine the health of ecosystems.
- Describe** TWO characteristics shared by ecosystems that have high biodiversity.
  - Identify** TWO specific human activities that result in a loss of biodiversity, and **explain** how each activity lowers biodiversity.
  - For each human activity you discussed in (b), **propose** a practical strategy (other than simply banning the activity) to reduce the loss of biodiversity.
  - Describe** ONE naturally occurring factor that could lead to a loss of biodiversity.
  - Describe** TWO ecological benefits that greater biodiversity provides.





