

# FRQ Bootcamp

## General rules

- ★ What are the requirements for the question - list, describe, cause and effect...
- ★ If it asks anything besides identify, you should write at least two sentences. One stating your clear, specific answer and the second providing supporting evidence, examples or a detailed description.
- ★ Know the difference between environmental, social, political and economic effects.
- ★ How many examples are requested? If the question asks for two, only the first two will be graded
- ★ If you are not sure about the meaning of a word in the question, figure out what it means by pulling apart the syllables (anthropogenic – anthro (man) genic (origin or made) is man-made)
- ★ Start each question with whether it is A, B, C,... and leave a two to three line break between each section so you can come back later to add additional information
- ★ Do not rewrite the question; it is a waste of time for you and the reader
- ★ Be careful with absolutes, will it really kill all the animals? Will the entire ecosystem be harmed?
- ★ Even if you are making it up, make it sound good and confident.
  - Be specific. You will not get any credit if you are not specific enough.
  - No "maybe" or "might" unless there is actual scientific uncertainty.
- ★ DON'T WRITE VAGUE STATEMENTS unless you follow it up with a specific example.
  - If a could say it, it is too vague.

## Basic rules for a non-math question

- ★ Make sure the answers are legible
- ★ Always use complete sentences.
- ★ Each answer should be organized, comprehensive, and in prose form; outline form is not acceptable.
- ★ Drawings are acceptable only if there is a written explanation
- ★ No eco-babble, flowery, or vague phrases The following is a listing of these vague phrases/ terms.

### **THEY ALL NEED TO BE SUPPORTED BY EXAMPLES, EVIDENCE, OR FURTHER EXPLANATION**

- |                               |  |
|-------------------------------|--|
| 1. "bad for the environment"  | 11. "human footprint/impact"               |
| 2. "causes global warming"    | 12. "kill all the plants/animals/wildlife" |
| 3. "Changes _____"            | 13. "make it illegal"                      |
| 4. "Ecofriendly" or "greener" | 14. "the water law" or "the air law"       |
| 5. "sustainable"              | 15. "make it more / less expensive"        |
| 6. "mother nature "           | 16. "overconsumption of natural resources" |
| 7. "save the Earth/planet"    | 17. "pollute the environment"              |
| 8. "good for the environment" | 18. "pollute the water/air/soil"           |
| 9. "global problem"           | 19. "toxins", "pollution", "chemicals" & " |
| 10. "harmful chemicals"       | 20. "Harms human health"                   |

These terms and phrases may sound descriptive, but they frequently say little and provide none of the detail needed to earn credit. Details, examples, and/or explanations are needed.

## Basic rules for a math question

- ★ ALL OF YOUR WORK MUST BE SHOWN ON THE LINES PROVIDED
- ★ NO MATH, NO POINTS
- ★ KEEP YOUR UNITS in each step to ensure it is correct and your answer MUST HAVE UNITS
- ★ Does the answer make sense? A monthly light bill for a family should not be in the trillions of dollars.

## Practice to be strong

Weak: "Acid deposition hurts forests."

Strong: "Acid deposition can hurt forests in several ways. One way is by reducing the topsoil's ability to retain vital nutrients such as calcium, magnesium, and potassium which are needed by trees."

Weak: "Runoff from farms can reduce water quality and harm the environment."

Strong: "Runoff from farms can reduce surface water quality by introducing nutrients such as nitrates and phosphates. These compounds promote algae growth which can reduce water clarity. Further, when the algae die their decomposition by aerobic bacteria can also reduce dissolved oxygen levels."

Weak: "The pollution from coal power plants causes a lot of environmental degradation."

Strong: "The air pollution from coal power plants includes nitrogen oxides, sulfur oxides and mercury which have been linked to several environmental problems including acid deposition and mercury contamination of surface water."

Weak: "Garbage incinerators cause a lot of air pollution."

Strong: "Garbage incinerators generate a variety of different air pollutants including carbon dioxide (CO<sub>2</sub>), dioxin, particulate matter (PM), heavy metals and sulfur oxides."

## Now its your turn:

1. Take this weak statement: "High levels of poverty are bad for the planet."

Make it stronger: \_\_\_\_\_

\_\_\_\_\_

2. Take this weak statement: "Mercury contamination in food can hurt children."

Make it stronger: \_\_\_\_\_

\_\_\_\_\_

3. Take this weak statement: "Automobiles make a lot of air pollution which can disrupt the environment."

Make it stronger: \_\_\_\_\_

\_\_\_\_\_