

**The Environment: Our Challenges and Responsibilities Questions**

**Use the Counterpoints textbook to answer these questions – pages 424-449**

1. What is “stewardship”?

2. Summarize the World Scientists’ Warning to Humanity on page 424.

3. What evidence is there to suggest that the Earth’s climate is changing?

4. What is “permafrost”?

5. What is “carrying capacity”?

6. Describe some of the effects of population growth.

7. What is “deforestation”?

8. Explain why soil is an important resource.

9. What farming lessons were learned from the 1930s “dust bowl” (drought) in North America?

10. Look at figure 13-3 on page 425. What percentage of the Earth’s surface is arable (farmable) land?

11. Describe some of the challenges faced by Canada’s farmers today.

12. What is “global warming”?

13. What is a potential problem with some genetically modified crops?

14. What vital role do forests serve?

15. Why are forests being cut or degraded at the rate of 350 square kilometers per day?

16. What is "acid precipitation"?

17. Describe some of the environmental impacts of deforestation.

18. What is "sustainable development"?

19. What did the 1987 United Nations World Commission on Environment and Development ask of the developed world?

20. What are "herbicides" and "pesticides"?

21. What is a potential problem with the genetically modified seeds produced by corporations such as Monsanto and Dupont?

22. What is “organic” food?

23. What is a problem with importing food from far away?

24. What are “CO2 emissions”?

25. What is “biodiversity”?

26. How can forests be preserved?

27. What is “ecotourism”?

28. What is the British Columbia government’s “Protected Areas Strategy”?

29. What are “watersheds”?

30. What is the “Great Bear Rainforest”?

31. Provide details of the 2006 agreement to preserve the Great Bear Rainforest.

32. In what other areas do you think an agreement to conserve land might be used to promote sustainable use of resources? Explain.

33. Explain why water is an important resource.

34. What is groundwater?

35. What is surface water?

36. Where does most of the demand for freshwater come from?

37. Why are the increasing demands for water a concern?

38. What is "wastewater"?

39. Describe how surface water can become polluted.

40. Do you agree that increasing populations are the main threat to the world's freshwater supply? Explain.

41. What is an "aquifer"?

42. What problem occurs when farmers tap aquifers for irrigation projects?

43. How can water usage be made more efficient?

44. Which of the solutions to water management do you consider to be the most practical? Explain.

45. What is meant by the term, “carbon footprint”?

46. What is the “troposphere”?

47. What are “greenhouse gasses” and why are they important?

48. What is the “ozone layer” and why is it important?

49. What is “ultraviolet radiation” and why is it problematic?

50. What was noticed about the ozone layer in 1978?

51. What are “chlorofluorocarbons” and why are they problematic?

52. What was the “Montreal Protocol” and what were the results of the countries’ efforts to reduce chlorofluorocarbons?

53. When will hydrochlorofluorocarbons (the less harmful replacement for chlorofluorocarbons) be phased out by developed and developing countries?

54. Look at figure 13-17 on page 437. What reasons do you think might account for the countries with the top and bottom chlorofluorocarbon emissions?

55. What is at the centre of global warming?

56. How has Canada ranked in terms of carbon emissions from fossil fuels? What is one of the reasons for rising emission levels in Canada?



57. Look at figure 13-19 on page 438. Which are the two main greenhouse gases?

58. What is meant by the term, "greenhouse effect"?

59. Summarize the findings on the state of global climate change as reported by the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

60. Explain some of the consequences of global warming.

61. Use the chart to list details of the effects of climate change on forests, agriculture, and water.

Topic	Effects of Climate Change
Forests	
Agriculture	
Water	

62. What is the “United Nations Framework Convention on Climate Change”?

63. What is the Kyoto Protocol and what target did the Canadian government set to reduce greenhouse gas emissions by?

64. Look at figure 13-18 on page 438. How would you describe Canada’s progress in trying to meet its greenhouse gas emissions targets outlined in the Kyoto Protocol?

65. What do you think might be some reasons for Canada’s poor record in reducing emissions?

66. Look at figure 13-26 on page 444. Of the three government approaches listed to limit greenhouse gas emissions, which do you think would be most effective? Why?

67. Use the chart to list details of the advantages and disadvantages of sustainable energy sources.

Source	Advantages	Disadvantages
Hydroelectric Power		

Run-of-River Hydropower		
Wind Power		
Geothermal		
Tidal		
Biofuels		

68. Which forms of sustainable energy would be practical where you live? Explain.

69. Choose one of the First Nations communities on page 448 (Tlingit First Nation, Haida Nation, or the T'Sou-ke Nation) and describe how it is leading the way in clean energy.

70. How can individuals help the environment?