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 36) 3 37) 2

38) SAMPLE ANSWERS:

- (1) damage habitats of ocean organisms OR cause water pollution from spills
- (2) use domestic rather than foreign source of oil OR create jobs OR keep prices low OR increase the oil supply

39) SAMPLE ANSWERS:

- (a) Mining (logging) could destroy habitats. OR Overhunting (overfishing) could disrupt food chains. OR Oil drilling could pollute the ecosystem.;
- (b) Logging could help prevent forest fires. OR Mining (oil drilling) would give our society more of the minerals (energy sources) it needs to function. OR Hunting could reduce car-deer accidents.

40) SAMPLE ANSWERS: The coyote population will decrease, as the wolf will be a competitor for the same prey as the coyote. OR The coyote population will be unaffected because there is sufficient prey for both the wolf and the coyote.

41) SAMPLE ANSWER: The coyotes control the growth of certain prey populations.

42) SAMPLE ANSWERS: The wolf was once a natural part of this ecosystem. OR to control the deer population OR There is adequate prey to support the wolf population. OR It would increase biodiversity.

43) SAMPLE ANSWERS:

- (1) More people use more natural resources and they begin to run out.;
- (2) Fewer wastes will accumulate in landfills. OR Recycling keeps certain natural resources available for use by organisms. OR Resources will last longer.;
- (3) water OR wood/paper OR soil OR glass OR cans OR plastic

44) SAMPLE ANSWERS: plant trees OR preserve habitats OR recycle OR do not import foreign species OR work to reduce pollution

45) SAMPLE ANSWERS: A loss of biodiversity can result in a shortage of food. OR lack of materials for building or medicine or research

46) SAMPLE ANSWERS: centipedes OR ground beetles

47) SAMPLE ANSWERS: Many other organisms are caught in the slug traps. OR Traps kill off natural predators of slugs. OR may disrupt food web

48) 1 49) 4

50) SAMPLE ANSWERS: Bioremediation is much less expensive than many other methods used to clean up the environment. OR New businesses can be formed to perform bioremediation.

51) SAMPLE ANSWERS: Some microorganisms may be harmful to people (or other organisms). OR Some microorganisms might damage the environment. OR The introduction of nonnative organisms could upset the balance of an ecosystem.

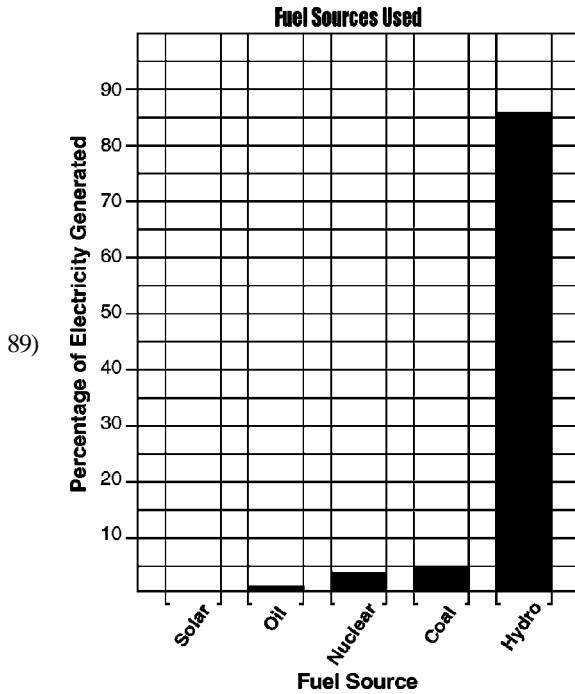
- 52) SAMPLE ANSWER: There is little air pollution from nuclear fuels. OR It doesn't contribute to acid rain. OR It doesn't use fossil fuels. OR It doesn't contribute to global warming by releasing CO₂.
- 53) SAMPLE ANSWER: results in nuclear waste OR dangers from radiation OR thermal pollution
- 54) SAMPLE ANSWERS:
 (1) They pollute the atmosphere. OR They lead to acid rain. OR They lead to global warming. OR Fossil fuels are a limited resource.;
 (2) solar energy OR windmills OR water power OR nuclear fuels;
 (3) does not pollute the environment (solar energy) OR is renewable (water power) OR Fossil fuels are not burned. (nuclear);
 (4) Windmills are very noisy. OR Dams built for water power destroy habitats. OR Nuclear fuels produce dangerous wastes. OR high cost of changing technology OR Sufficient solar, wind, or water is not available worldwide.
- 55) SAMPLE ANSWER: Burning coal can produce air pollution or acid rain or global warming.
- 56) SAMPLE ANSWERS: Global warming is most likely responsible. OR greenhouse effect OR too much carbon dioxide in the atmosphere
- 57) SAMPLE ANSWERS: burn less fossil fuel OR replant trees as existing ones are cut down OR limit the number of trees cut down
- 58) SAMPLE ANSWERS: exposes organisms to UV rays OR increases chance of mutations in cells
- 59) SAMPLE ANSWERS:
 (1) growth OR digestion OR reproduction;
 (2) acid rain OR loss of biodiversity;
 (3) It is caused by air pollution/burning fossil fuels OR deforestation
- 60) SAMPLE ANSWERS: Rain may wash the toxins into lakes. OR They may seep into groundwater.
- 61) SAMPLE ANSWERS: The toxins may... move through the food web. OR ...change the pH of pond water. OR ...kill organisms.
- 62) SAMPLE ANSWERS: oxygen OR light OR temperature OR sediment OR carbon dioxide
- 63) SAMPLE ANSWERS: respiration OR decomposition
- 64) SAMPLE ANSWERS: increased sediments OR pollution OR overfishing OR cutting down trees
- 65) SAMPLE ANSWERS: A decrease in the amount of light will affect photosynthesis and will reduce the amount of oxygen. OR Less light means less photosynthesis and less oxygen for fish respiration.
- 66) SAMPLE ANSWERS: Pesticide use may pollute. OR Fertilizer use may pollute. OR Animal wastes used as fertilizer may end up in water supplies.
- 67) SAMPLE ANSWERS:
 (1) Killing all the mosquitoes will end the West Nile virus infections of people. OR People will get fewer mosquito bites.;
 (2) Killing all the mosquitoes will reduce the food supply for bats and birds. OR Fish that rely on mosquito larvae for food will have less food.;
 (3) Pesticides can enter food and water supplies (causing illness). OR People may breathe in the pesticide.
- 68) SAMPLE ANSWERS: The chemical may not be biodegradable. OR The chemical may pollute the environment. OR The chemical may pollute the environment. OR The product may be toxic to humans and wildlife.
- 69) SAMPLE ANSWERS: wear goggles OR wear shoes OR wear gloves OR wear mask OR follow directions or package
- 70) SAMPLE ANSWERS: If sperm production stops, then eggs cannot be fertilized. OR It reduces genetic variation by limiting the number of males that can produce offspring. OR Without reproduction no species can survive.
- 71) SAMPLE ANSWERS: The gypsy moth has no natural enemies in this area. OR The insect probably has no natural enemies in its

new environment, allowing it to overpopulate and become a greater pest than if predators had kept its numbers in check. OR Oak trees have adapted in the pests that have been in their environment for a long time, but have not yet adapted in to this new pest organism.

- 72) SAMPLE ANSWERS: no competition OR no predators OR large food supply OR bigger/stronger than other species
- 73) SAMPLE ANSWERS: pass laws OR inspections OR increase public knowledge about the problem
- 74) SAMPLE ANSWERS: The purple loosestrife crowded out other plants. OR Zebra mussels outcompete native species. OR The brown tree snake ate birds eggs and reduced bird populations. OR Gypsy moths eat oak leaves and can kill oak trees.
- 75) SAMPLE ANSWERS: They can transfer pathogens to humans and domestic animals. OR Imported species may displace native species. OR increased competition for food and/or habitat for native species
- 76) SAMPLE ANSWERS: make antibodies OR White blood cells will engulf and destroy pathogens.
- 77) SAMPLE ANSWERS:
- (1) Zebra mussels and gobies were introduced into the Great Lakes from the ballast tanks of cargo ships.;
 - (2) Zebra mussels clog water intake pipes. OR Zebra mussels disrupt existing food chains. OR Cobies eat the eggs and young of other fish.;
 - (3) Zebra mussels filter PCB's from lake water. Gobies eat small zebra mussels, then the gobies are eaten by sport fish.
- 78) SAMPLE ANSWERS: Gaurs produced by normal means have more variations than gaurs produced by cloning. OR Gaurs produced by normal means have genetic material from both parents. OR Gaurs produced by cloning are genetically identical.
- 79) SAMPLE ANSWERS: helps preserve biodiversity OR ensures availability of a variety of genetic material
- 80) SAMPLE ANSWERS: preserving the habitats in which they live OR restricting hunting of gaurs
- 81) SAMPLE ANSWERS: Global warming may result in the dying out of the young jack pines where the Kirtland's Warbler lives. OR Temperature increases could reduce the population of jack pine.
- 82) SAMPLE ANSWERS: algae OR plants
- 83) 3
- 84) SAMPLE ANSWERS: Less oxygen is produced. OR Less carbon dioxide is removed from the atmosphere. OR Habitats are destroyed. OR Biodiversity is diminished. OR Plant species valued for medicines are lost. OR affects global temperatures OR increased erosion
- 85) SAMPLE ANSWERS:
- (1) There is a great demand for lumber for building new homes and other structures. OR Forested areas are being cut down to allow for grazing areas for animals.
 - (2) Habitats are lost. OR When many trees are cut down, the carbon dioxide they would normally use remains in the atmosphere (and may intensify the process of global warming). OR Deforestation promotes erosion.
 - (3) protect present forested areas OR allow succession to take place on deforested land OR reduce the amount of CO₂ that is released in the atmosphere OR recycle paper OR cut down fewer trees
- 86) SAMPLE ANSWERS: doesn't allow for recycling of nutrients in the lawn OR takes up landfill space
- 87) 2
- 88) SAMPLE ANSWERS: Recycling involves the use of materials such as glass, plastic, and aluminum cans to produce other products. The trend may be due to the awareness of the need to recycle to improve the environment. Recycling has decreased the amount of solid wastes being dumped into landfills; OR
- (1) Recycling is producing new products from old products OR putting materials into a new form that is useable AND an example is glass OR metals OR plastic OR paper;
 - (2) decreased solid waste in landfills OR energy savings OR less litter OR less use of natural resources OR saves nonrenewable

resources;

- (3) easier to participate (more facilities available) OR enactment of laws OR community recycling programs OR public awareness OR increase in type of recyclable materials OR economic benefits



- 90) coal OR oil

- 91) hydro (water) OR solar (sun)

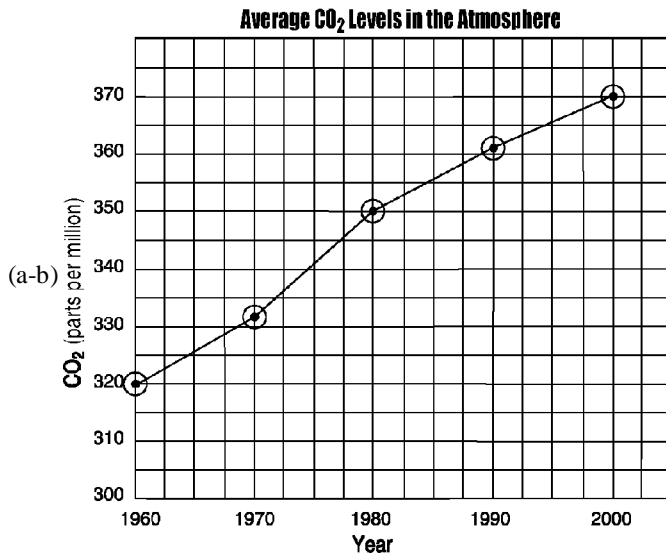
- 92) SAMPLE ANSWERS: No, mutations in body cells are not transmitted to offspring. OR No, only mutations in gametes are transmitted to offspring.

- 93) SAMPLE ANSWERS: decrease in consumers/biodiversity OR decrease in oxygen OR decrease in available energy OR increase in carbon dioxide

- 94) SAMPLE ANSWERS:

- (1) As CO₂ increases, the atmospheric temperature increases.;
- (2) deforestation OR combustion OR increasing human population;
- (3) Increased ocean temperatures will destroy fish. OR Polar ice could melt and flood land. OR may cause extinction of organisms OR may cause change in population numbers;
- (4) plant more trees OR reduce the use of fossil fuels OR use alternative energy sources OR carpool OR recycling

- 95) SAMPLE ANSWER:



- 96) SAMPLE ANSWERS: increased burning of fossil fuels OR more motor vehicle usage OR increased levels of deforestation OR increase in human population
- 97) SAMPLE ANSWERS: an increase in the number of severe storms OR an increase in sea levels OR flooding of coastal areas OR changes in precipitation patterns OR global warming OR temperature increases
- 98) 50 ppm
- 99) SAMPLE ANSWERS:
- (1) Hydrocarbons — reduce pesticide use OR reduce auto exhaust;
 - (2) Sulfur dioxide — reduce burning of fossil fuel;
 - (3) Carbon dioxides — reduce vehicle use OR reduce forestation OR plant trees;
 - (4) Chlorofluorocarbons — use alternatives to chlorofluorocarbons, such as pump sparys instead of aerosols
- 100) SAMPLE ANSWER: large increase in their food supply
- 101) SAMPLE ANSWER: As the number of decomposers increases, they use more oxygen for respiration.
- 102) SAMPLE ANSWERS: Once the discharge is stopped and the sewage in the river is broken down by decomposers, the oxygen levels should return to normal. OR The sewage will be diluted and pushed along by the flowing water.
- 103) SAMPLE ANSWERS: Pesticides can harm other parts of the environment (other species) but native fish will not. OR Native species will target the larvae with less disruption of food chains. OR Pesticides may disrupt the food chains in the area but native fish will not. OR Pesticides may cause human illness.