

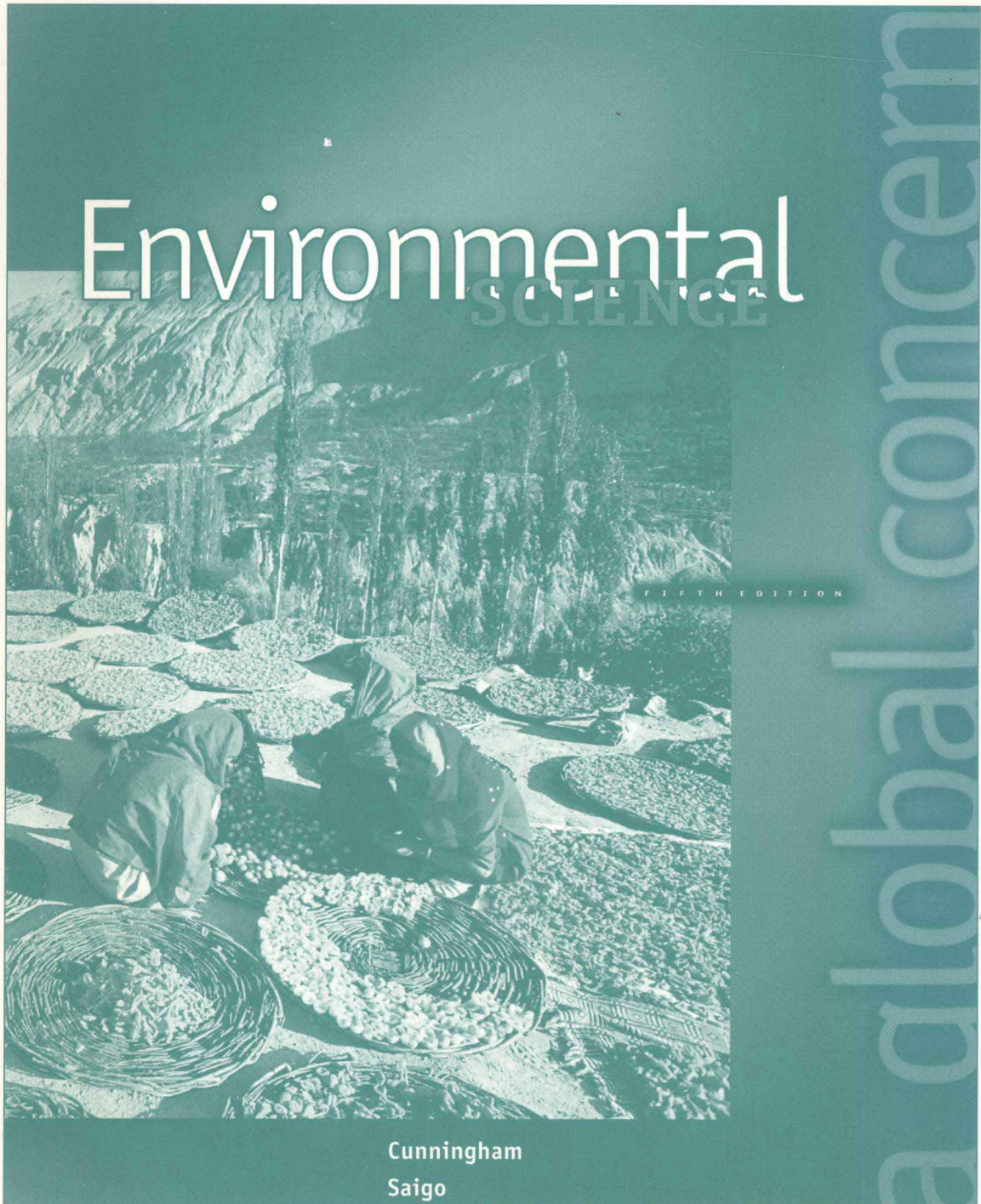
Student Study Guide

to accompany

Environmental

SCIENCE

FIFTH EDITION



Cunningham
Saigo

Prepared by
Darby Nelson, Ph.D.

Student Study Guide

to accompany

Environmental Science

A Global Concern

Fifth Edition

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Foreword to the Student

Dear Student,

There is more to learning than studying. Experiences with students have shown me that success depends more than you might think on just *how* you study. Students typically use one of two approaches to learning. One strategy, my students and I call this *passive* study, rarely produces complete mastery of material. *Active* study, on the other hand, usually gets the job done. Let me characterize the differences this way:

The passive learner takes on the role of spectator. Reading straight through a chapter or "going over" class notes, or looking up answers to study guide questions without trying to come up with answers first are all examples of passive study. Passivity does not engage the brain enough to produce useful learning.

The active learner takes on the role of participant. The strategy of active learning is to get the brain to actively engage the material. The active learner participates in study groups and repeatedly asks, "What do I understand about what I just read, and how can I show others that I understand it?" Active learners write their own miniquizzes and exchange them with classmates. Active learners continually ask their brains to make connections.

Needless to say I have tried to make this study guide a tool for active learning. But, whether it becomes that or not depends ultimately on how you use it. Do not simply look up the answers. That is passive. Instead, familiarize yourself with the text and lecture materials first. Then use these exercises to challenge yourself and to solidify those understandings. Write out answers to questions rather than just noting the letter of your choice. It is particularly important that you write out answers to the essay questions. Writing forces thinking. Writing keeps us accountable for both our thoughts and words.

The ultimate goal of the course is to sharpen your critical thinking skills. But that is a journey of several steps. Each chapter of this Guide is organized on the same three part format. First, you need to learn the language. That is the goal of the first section of each chapter called **Building The Base**. This section presents you with a variety of questions to firm up the vocabulary associated with the chapter topics. In the Multiple Choice items, any number of the choices may be correct, perhaps even all of them. For the True or False questions where a sentence is false, you are asked to briefly identify why the item is not true. Completion and Short Answer questions call for you to supply the missing words or give a brief explanation. **Building The Base** is organized by topic in the same order as presented in your text. So, you need not have finished studying the entire chapter before beginning.

The second section is called **In Your Own Words**. Expression and meaning of concepts are the focus here. Often you will be asked to express the essence of a concept in short answer form. Some questions will have you focus on component pieces of a more comprehensive concept. With the **Building The Base** section under your belt, you will have the language skills you need to communicate about these ideas.

Both of these first two sections are preliminaries to the final and most important section of all called **Thinking Things Through**. It is the critical thinking section. Here you are asked to respond to a case study, a real world issue or an observation. The specific items included here were chosen because they represent central concepts of the chapter in action. It is here that you will experience the direct connections between what you learn in a chapter and the real world. This should be the most fun of all. It is here that your reasoning skills and creativity can hold forth.

Two other features appear in each chapter. **BE ALERT FOR** is used to pinpoint critical learning points that may be counter-intuitive or otherwise challenging. Forewarned is forearmed. Occasionally we will also take a **TIME OUT**. These breaks let me interject perspective on an item about to be discussed. These are designed to give you insight that will help you with the ideas that immediately follow.

Answers to all questions are found at the end of the book.

Finally, I wish you every success in this course. I deeply believe there are no more timely, important, or relevant issues for us to consider as individuals or as a society than the ideas of environmental science.

Good luck and good learning.

Darby Nelson

Contents

1	Understanding our Environment	1
2	Tools for Building a Better World	10
3	Matter, Energy, and Life	18
4	Biological Communities and Species Interactions	29
5	Biomes, Landscapes, Restoration, and Management	39
6	Population Dynamics	48
7	Human Populations	57
8	Ecological Economics	66
9	Environmental Health and Toxicity	77
10	Food, Hunger, and Nutrition	86
11	Soil Resources and Sustainable Agriculture	95
12	Pest Control	104
13	Biodiversity	1113
14	Land Use: Forest and Rangelands	122
15	Preserving Nature	133
16	The Earth and Its Crustal Resources	142
17	Air, Climate, and Weather	151
18	Air Pollution	160
19	Water Use and Management	169
20	Water Pollution	180
21	Conventional Energy	191
22	Sustainable Energy	201
23	Solid, Toxic, and Hazardous Waste	210
24	Urbanization and Sustainable Cities	220
25	What Then Shall We Do	229
	Answers	239

1 UNDERSTANDING OUR ENVIRONMENT

For most of our history, humans have been neither numerous enough nor manipulative enough to make much of an impact on the natural environment. That has changed. The magnitude of human impacts on the natural world are unprecedented in our species' history. Environmental science seeks answers to a set of basic questions about what these interactions mean for our future and what we can do to steer things in a direction to our liking.

Without changing the way we relate to the earth, our future prospects are bleak. There is evidence that attitudes and behaviors are changing. Will the changes occur in time to avoid catastrophe? That seems to be up to us to decide.

You will also gain a bit of historical perspective in this chapter. Knowing how we got to a particular place can give important insight into what we're dealing with in the present and where the future will lead. There are plenty of reasons to be pessimistic, and yet there are signs of hope.

Welcome to the study of environmental science and to this study guide. I wish you well.

Building the Base

Environmental Science and Historical Perspectives {pp. 3–8}

Objectives:

1. Define environment and environmental science.
2. Identify the four historical stages of environmental concern and briefly describe each of them.
3. Distinguish among utilitarian conservation, biocentric preservation, environmentalism, and global environmentalism.
4. Identify the environmental contributions of Theodore Roosevelt, Gifford Pinchot, John Muir, Rachel Carson, and George Marsh.
5. Describe the composition of the global village.

A. Multiple Choice. From one to all choices may be correct.

1. Which of the following questions would likely be of concern to environmental science? _____.
 - a. How much topsoil is lost from U.S. cropland each year and why?
 - b. What factors influence human decisions on family size?
 - c. Is there a link between amount of wealth and the amount of waste a society produces?
 - d. Will our grandchildren have productive, enjoyable lives?
 - e. Can international trade agreements affect the quality of our air and water?
2. The word *environment* as used in environmental science includes _____.
 - a. our biological settings.
 - b. technological things like cars and telephones.
 - c. our cultural settings.
 - d. human social interactions.

Your choices for 3–7 are:

- | | |
|---------------------|----------------------------|
| a. conservation | c. global environmentalism |
| b. environmentalism | d. altruistic preservation |
3. _____ The most recent stage of environmental consciousness.
 4. _____ Specifically added concerns over air and water pollution to environmental consciousness.
 5. _____ The first stage of environmental consciousness to arise, stimulated by early rapacious exploitation of timber and grassland resources.
 6. _____ Associated with the concept of sustainable development.
 7. _____ Has linked questions about poverty and oppression with environmental concerns.

Your choices for 8–10 are:

- a. Biocentric preservation b. Utilitarian conservation

8. _____ emerged out of the first stage of environmental consciousness.
9. _____ advocates protection of habitat as a basic right of all life forms.
10. _____ is concerned primarily that resources not be wastefully destroyed in one generation but that they be available for use by future generations.

Your choices for 11–15 are:

- a. George Marsh b. Rachel Carson
c. John Muir d. Gifford Pinchot

11. _____ was a biocentric preservationist.
12. _____ triggered the birth of environmentalism.
13. _____ believed that the reason to preserve forests was to provide for future timber supplies.
14. _____ believed that the reason to preserve forests was to provide habitat for creatures.
15. _____ triggered the first wave of environmental concern in the U.S. in the mid-1800s.
16. Theodore Roosevelt and Gifford Pinchot are associated with _____.
 - a. establishing the framework of our national forest system.
 - b. creating the National Wilderness Preservation system.
 - c. passage of early laws to protect game.
 - d. putting resource management on a rational and scientific basis.
17. John Muir _____
 - a. believed nature deserves to exist for its own sake.
 - b. actively worked for the establishment of Yosemite National Park.
 - c. strongly endorsed Gifford Pinchot's pragmatic utilitarian conservation.
 - d. was an early preservation activist.
18. Global environmentalism is the first stage of environmental awareness to _____.
 - a. include the concept of sustainable development.
 - b. involve United Nations efforts.
 - c. recognize the link between poverty and environmental problems.
 - d. view nature as having esthetic and spiritual values.
 - e. incorporate the idea that future jobs depend on saving forests and other physical resources.

B. True or False. If false, explain why.

1. _____ One of the major concerns in environmental science is how to successfully integrate the natural world and the socio-cultural-technological world of our own creation.
2. _____ Human actions now impact natural systems in ways that threaten earth's life-support systems on which we depend.
3. _____ Earth has the capacity to support about ten billion people on a sustainable basis.
4. _____ We obtain the majority of our energy needs from fossil fuels (coal, oil, and natural gas) and supplies of these materials are being reduced a rapid rate.
5. _____ The world population is increasing at a rate comparable to adding four new Californias of people every year.
6. _____ Ethnically, almost 60 percent of the people in the global village are East or South Asians.
7. _____ The vast majority of global villagers dwell in urban centers as opposed to the countryside.
8. _____ About one in three residents in the global village is a child under 15.
9. _____ Illiteracy among adults in the global village is about 50 percent.

3 Chapter 1

A Divided World and its Prospects {pp. 8–15}

Objectives:

6. Identify some important environmental issues we face today.
7. Define acute poverty and explain how it works to further environmental degradation.
8. Compare quality of life indicators between rich and poor nations. Describe the relative role of the U.S. in resource consumption and pollution production.
9. Describe differences between the First, Second, and Third World as well as more- and less-developed countries.

BE ALERT FOR

Since there is now a recognized link between poverty and environmental degradation, the economic status of the different peoples of the world has become an important environmental topic.

Unfortunately there has been a proliferation of terms used in this economic classification and many of them overlap in meaning. For example, the *South* (southern hemisphere), *have-nots*, *Third World*, *non-industrialized*, and *less-developed* are all terms with general application to the world's poor countries. A similar situation exists for reference to the richer countries.

C. Multiple Choice. Your choices for 1–4 are:

- | | |
|-----------------|----------------|
| a. First World | c. Third World |
| b. Second World | |

1. _____ Nonindustrialized developing countries.
2. _____ Socialistic countries, most being part of the former Soviet block.
3. _____ Industrialized nations of western Europe, North America, and Japan.
4. _____ The least economically powerful nations.
5. Poverty _____
 - a. does not seem to be directly related to environmental problems.
 - b. leads to depleted resources but not to environmental damage per se.
 - c. is caused by environmental damage but also leads to such damage.
6. Poor countries typically have _____ compared to rich countries.
 - a. much higher infant mortality rates
 - b. much lower female literacy rates
 - c. notably higher death rates
 - d. substantially less access to safe drinking water
7. The U.S., with 5 percent of the world's people, uses about _____ percent of the world's oil and produces about _____ percent of the world's toxic wastes.
 - a. 5, 5
 - b. 10, 10
 - c. 25, 50

Your choices for 8–9 are:

- | | |
|--|---|
| | a. less-developed countries |
| | b. more-developed countries |
| | c. not necessarily either the less- or more-developed countries |
8. _____ Richer countries in an economic sense.
 9. _____ Countries lacking cultural development.

Your choices for 10–12 are:

- a. decline with increasing income
- b. increase with increasing income
- c. increase then decrease with increasing income

10. _____ Atmospheric concentrations of sulfur dioxide and particulate pollutants.
11. _____ Carbon dioxide emissions per capita.
12. _____ Percentage of population lacking safe water and adequate sanitation.
13. Criteria for classification of people as living in acute poverty include _____.
 - a. unable to afford a car.
 - b. lack of electricity.
 - c. lack of basic sanitation.
 - d. lack of clean water.
 - e. an inadequate diet.
14. Approximately _____ percent of the world's people live in acute poverty.
 - a. 5
 - b. 10
 - c. 20
 - d. 50
15. The large numbers of acutely poor people are considered to be _____ environmental degradation.
 - a. the product of
 - b. a cause of
 - c. both a cause and the product of
16. The percentage of people living in poverty increased between 1985 and 1990 in _____.
 - a. southern Asia.
 - b. Europe.
 - c. Latin America.
 - d. eastern Asia.
17. About 60 percent of the world's people have an average per capita income of under _____.
 - a. \$10,000.
 - b. \$5,000.
 - c. \$1,000.
 - d. \$600.
18. Which, if any, of these are *not* issues of great concern in environmental science? _____.
 - a. The possibility of major global climate change resulting from human activity.
 - b. The permanent loss of large numbers of species due to extinction.
 - c. Running out of oxygen.
 - d. Overpopulation.
 - e. Wasteful consumption of resources.

D. True or False.

1. _____ The rich nations of the world tend to be clustered in the northern hemisphere while the poorer tend to be mostly in the southern hemisphere.
2. _____ The U.S. produces about 25 percent of the nitrogen and sulfur oxide pollutants.
3. _____ The U.S. consumes about 10 percent of the world's aluminum.

E. Make a List.

List as many quality of life indicators that distinguish poor from rich countries as you can.

Environmental Futures {pp. 15–22}

Objectives:

10. Identify the factors used to determine the human development index and the impact race and gender can have on socio-economic status.
11. Identify some possible strategies for poverty reduction and improved social justice.
12. Explain what is meant by sustainable development and describe concerns about whether economic growth can be sustained indefinitely.
13. Define indigenous people and describe their role in the protection of biological diversity.
14. Give some reasons for both pessimism and optimism about our environmental future. Contrast the neo-Malthusian and technological optimist views.

F. Multiple Choice. From one to all choices may be correct.

1. Environmental pessimism is based on the view that _____.
 - a. resources are limited.
 - b. the number of people grows faster than the quantity of resources available.
 - c. humans are unable to restrain themselves.
2. The human development index for a nation is based on _____.
 - a. adult literacy.
 - b. average level of education.
 - c. average life expectancy.
 - d. annual per capita income.
3. Environmental optimism is based on the view that _____.
 - a. we do not face environmental problems.
 - b. technology will prevent environmental disasters.
 - c. human ingenuity will prevent environmental disasters.
4. Pessimists argue that _____.
 - a. blind faith in technology is an excuse for maintaining the status quo.
 - b. technological optimists are engaged in wishful thinking.
 - c. technological optimism would better be called the Cornucopian fallacy.
5. The neo-Malthusian view is that _____.
 - a. there are no environmental problems, only opportunities.
 - b. science has the capacity to resolve all the foreseeable environmental dilemmas.
 - c. there are too many people competing for too few resources.
 - d. the greatest contributor to environmental problems is probably fear itself.
6. Technological optimists argue that _____.
 - a. technology and human ingenuity will solve the environmental problems.
 - b. historic patterns of progress of the past will continue into the future.
7. Indicators of socio-economic status reveal that _____.
 - a. gender typically correlates with relative wage rates.
 - b. gender typically correlates with relative nonagricultural employment rates.
 - c. race influences socio-economic status in many countries.
8. Methods to reduce poverty and improve social justice include _____.
 - a. increased education.
 - b. equitable distribution of land among a society's people.
 - c. economic growth that benefits poor people.
 - d. use of resources in a sustainable manner.
9. Since 1965 the gap between rich and poor societies worldwide has _____.
 - a. widened.
 - b. narrowed.
 - c. remained essentially the same.

10. The U.N. 20:20 Compact for human development _____.
 - a. is a comprehensive plan to make polluters pay into a fund to help the world's poor.
 - b. links poverty and social injustice to low levels of education.
 - c. seeks to reduce poverty and injustice in part through providing safe drinking water to all people.
 - d. envisions the availability of family planning services to all who wish them.
11. Sustainable development _____.
 - a. means meeting the needs of the present without compromising the ability of future generations to meet their own needs.
 - b. envisions that progress in human well-being is linked directly to economic growth.
 - c. can be attained through economic growth alone.
12. Critics of the concept of sustainable development argue that _____.
 - a. growth cannot literally be sustained forever because the biosphere has a limited capacity to absorb wastes.
 - b. since there are finite quantities of nonrenewable resources, a perpetual increase in the amounts of goods is impossible.
13. The Brundtland Commission suggested that sustainable development requires _____.
 - a. economic growth.
 - b. political stability.
 - c. equitable distribution of goods.
 - d. democracy.
14. John Stuart Mill would argue that _____.
 - a. without increasing consumption, human well-being cannot be improved.
 - b. improving the human condition can be accomplished through moral and social progress.
 - c. increased exploitation of nature is essential for human progress.

G. True or False.

1. _____ Analysts agree that one of the offshoots of extreme poverty in a society is a reduction in environmental damage.
2. _____ Worldwide economic growth over the last few decades unfortunately has not translated into improvements in human conditions.
3. _____ Another name for native people is indigenous people.
4. _____ The homelands of the world's indigenous peoples are among the most environmentally devastated of all.
5. _____ A large number of the world's 6,000 languages and cultures are being lost.
6. _____ Loss of indigenous cultures is accompanied by loss of unique understandings of nature.

BE ALERT FOR

A person who believes environmental collapse is unavoidable certainly deserves to be called pessimistic. Someone else who sees collapse as merely a remote possibility would be called optimistic. But what would you call a person who feels environmental disaster faces us, but is optimistic that we can and will avoid it by changing our ways?

A person's environmental outlook is perhaps a reasoned response to two related questions: Do you think serious environmental problems face us? Do you think humans will respond in a timely fashion to avoid ecological collapse?

TIME OUT

So far so good? Multiple choice, true-false, and completion questions, often quick to do, can help you recognize terms and concepts.

Unfortunately they do not allow your mind much opportunity to formulate ideas and concepts and express them on paper in ways understandable by others. Yet, these are the most important abilities of all.

The final two sections of questions, **In Your Own Words** and **Thinking Things Through**, are designed to do just that. Unlike texts and study guides you may have used before, these essay questions are fully answered at the end of this guide.

These sections will be particularly helpful to you if your instructor uses written assignments or essay questions in course exams. In either case they are essential to truly understand what environmental science is all about.

Back to work.

In Your Own Words

You have worked with eight basic ideas in this chapter. They are:

- Definitions of environment and environmental science.
- A summary of important environmental issues.
- The nature and challenge of sustainable development.
- Classification of nations by economic status.
- The importance of indigenous people.
- The relationship between acute poverty and environmental degradation.
- Views about our environmental future.
- The make-up of the global village.

It is now time to take stock of your understanding of these concepts, organize your thoughts, and express these ideas for yourself. You are not expected to write long answers for these questions. Instead, get to the heart of the matter.

Questions:

1. What are the four central questions environmental science seeks to answer?
2. Describe the composition of the global village.
3. In general the environmental problem areas that threaten our future can be boiled down to four. Identify them.
4. Define sustainable development.

5. Explain the connection between acute poverty and environmental degradation.
6. Explain how the loss of indigenous peoples and cultures may further environmental degradation.

Thinking Things Through

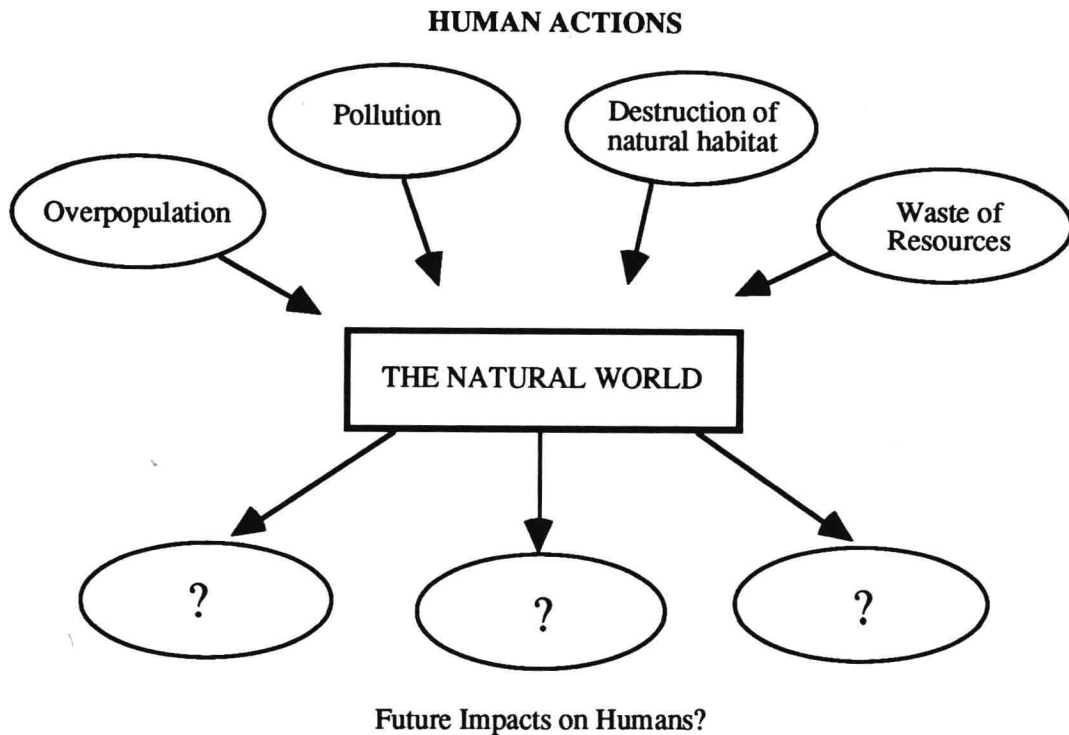
One important purpose in learning is to be able to critically evaluate new situations and problems. You have learned some very important concepts in this chapter. These last questions give you the chance to flex your thinking skills. You may want to put the answers to these questions in a separate notebook.

Questions:

1. Respond to the skeptic who says, "For the life of me I don't understand why people are so worried about the world's poor people and their impact on the environment. Look. Pollution is linked to consumption. It takes wealth to buy lots of things. Since the acutely poor are unable to consume, pollution levels will be safe from damage."
2.
 - a. Do you consider yourself more of a neo-Malthusian or technological optimist?
 - b. Would it have influenced your choice of views if the choices had been labeled *realist* (instead of neo-Malthusian) and *idealist* (instead of technological optimist)?
3. Before a person can understand the relevance of issues raised in environmental science, one needs to recognize connections between the natural world and our daily lives. Since reality to many people is that water comes from a faucet, food from a store, and disease by chance from nowhere, such connections are not always obvious. Make a list of the basic necessities you need to continue living day to day and describe as best you can how each is connected to the natural world.
4. Your text quotes the Kirma Indians of Panama, "Where there are forests there are native people, and where there are native people there are forests." What is the central point of this statement?

9 Chapter 1

5. The central question of environmental science is modeled in the diagram below. What are some of the more serious future impacts our actions are likely to have on us?



6. a. The U.S. makes up nearly five percent of the world's people. If the rest of the world produced toxic waste at the same rate we currently do, how much more toxic waste would be produced than now? (To do this you need to remember what proportion of all toxic wastes is produced by the U.S.)
- b. The same kinds of calculations can be done for many other kinds of pollutants with the same results. Why are ecologists a bit unnerved when they realize that a high percent of the world's people aspire to live like us?
7. Environmental science is perhaps the most interdisciplinary subject you will encounter. In the chapter section on indigenous peoples, the point is made that cultural diversity including language diversity is linked to the well-being of earth's biological diversity. Explain this linkage.
8. Would you call the speaker of these words an optimist or pessimist? Why?
"If we keep the status quo, we're headed for environmental disaster. But I am confident that when people have the relevant information they will make the hard choices, change their ways, and the disaster will be avoided."

2 TOOLS FOR BUILDING A BETTER WORLD

Is an action right if it is in our self-interest and wrong otherwise? Should things be judged to have value only when they are useful to us? Humans have long held that moral and ethical considerations are important arbiters of human behavior; that direct self-interest ought not alone define what constitutes acceptable behavior. Should your chances of having to live in a polluted environment be determined by the color of your skin? Does nature have rights? Environmental relationships have ethical dimensions.

This chapter also examines the role of deliberative thought in evaluating the conflicting claims surrounding many contemporary environmental issues. You will learn of attitudes and procedures valuable in evaluating information. Since reasoning skills are so useful in so many aspects of our lives, this part of the chapter can become one of the most useful things you will take from this course.

Building the Base

Environmental Ethics and Philosophy {pp. 25–32}

Objectives:

1. Define environmental ethics.
2. Contrast the views of universalists, relativists, nihilists, utilitarians, and postmodernists.
3. Distinguish between moral agents and moral subjects and explain moral extensionism.
4. Explain the differences between inherent value and instructional value
5. Distinguish among the following perspectives: anthropocentrism, stewardship, biocentrism, animal rights, ecocentrism, and ecofeminism.

A. Multiple Choice

1. Environmental ethics seeks to answer which type of question?
 - a. Is our use of earth's resources subject to ethical considerations?
 - b. Do some interests or values outrank others?
 - c. Do our obligations to nature differ from our obligations to people?
 - d. Does moral extensionism apply to humans.

Your choices for questions 2–5 are:

- | | |
|-----------------|-------------------|
| a. universalism | c. nihilism |
| b. relativism | d. utilitarianism |
2. _____ That which produces the greatest pleasure for the greatest number is right.
 3. _____ Since there is no purpose in life besides the struggle for existence, there is no reason to behave morally.
 4. _____ There are fundamental ethical principles that are unchanging and eternal.
 5. _____ There are no absolute ethical values; right and wrong are determined by the specifics of the situation.

Your choices for questions 6–12 are:

- | | |
|----------------|----------------|
| a. domination | c. biocentrism |
| b. stewardship | d. ecocentrism |
6. _____ Based on the notion that humans are superior to all other organisms.
 7. _____ Based on biblical interpretations.
 8. _____ Most strongly anthropocentric.

11 Chapter 2

9. _____ Views all living organisms as having inherent value and therefore, due moral consideration.
10. _____ Extends moral considerations to the broadest array of entities.
11. _____ Judged by many environmentalists to be too anthropocentric.
12. _____ Assigns moral values and rights to ecological processes, not just organisms.

B. True or False. If false, explain why.

1. _____ The part of philosophy called ethics considers values and morals to be the same.
2. _____ The examination of the moral relationships between people and the world around them is called environmental ethics.
3. _____ A central question in ethics is: Are there any universal moral laws that exist regardless of culture or situation?
4. _____ Postmodernism holds that there is a single set of ethical absolutes that govern our relationships to nature.
5. _____ All humans are considered to be moral agents.
6. _____ All humans are considered to be moral subjects.
7. _____ Moral extensionism refers to the process of broadening the list of entities judged deserving of ethical consideration.
8. _____ To be declared sentient (to have sentience) means to be capable of perceiving.
9. _____ The idea of stewardship includes the notion that humans are partners in nature rather than masters of nature.
10. _____ Some people feel that the Bible's message, properly interpreted, is that humans have a stewardship obligation toward nature.
11. _____ Lynn White claimed that by destroying the pagan notion that each tree and stream had its own guardian spirit, Christianity made it easier for humans to exploit nature.
12. _____ The rich nations of the world tend to be clustered in the northern hemisphere while the poorer tend to be mostly in the southern hemisphere.
13. _____ The pessimistic view of the future is based on the existence of a number of serious environmental deterioration trends.
14. _____ The optimistic view of the future is based on a disavowal that there is anything wrong.
15. _____ Some people, while acknowledging that the environmental damage is real and has serious consequences, believe that technology will solve the problems.
16. _____ There has been a greater tendency in the U.S. to locate landfills, smelters, toxic waste dumps and other such facilities in minority communities than in other communities.
17. _____ Native American reservations are exempt from hazardous waste disposal regulations.
18. _____ So far congress has totally ignored the environmental injustices visited upon minority communities.

C. Short Answer.

1. The notion that sees humans as having direct responsibilities toward nature is called _____.
2. The belief that both organisms and ecological systems have moral rights is called _____.
3. The belief that only humans have moral rights is called _____.

4. The belief that people need to see themselves as connected to others and to nature rather than as beings with rights, obligations, and ownership is called _____.
5. Ecocentric has essentially the same meaning as _____.
6. An entity judged to have value strictly because of what or who it is is said to possess _____.
7. Objects having value only because they are important to someone are said to have _____.
8. Something that has value regardless of its potential ability or usefulness is said to have _____.
9. The philosophical view that emphasizes cooperation instead of competition is called _____.
10. Entities that are expected to accept responsibility for their actions are called _____.
11. Entities that are deserving of moral consideration by others are called _____.

Environmental Justice {pp. 32–34}

Objectives:

6. Define environmental justice and describe the evidence that environmental racism exists.
7. Describe the changing views about wild nature.

D. True or False. If false, explain why.

1. _____ The central issue in environmental justice concerns is that people of color are subjected to disproportionately higher levels of risk than other people.
2. _____ The claim of environmental justice advocates is that no ethnic group should be exposed to greater levels of environmental hazards than any other group.
3. _____ The level of income is the strongest determinant of who becomes exposed to environmental health risks.
4. _____ About 20 percent of African-Americans and Hispanics live in communities containing uncontrolled toxic waste sites.
5. _____ Poor black children are about as likely as poor white children to suffer lead poisoning.
6. _____ Middle-class and affluent black children are about as likely to suffer lead poisoning as middle-class or affluent white children.
7. _____ Toxic colonialism refers to the practice of siting waste disposal facilities in poor countries.
8. _____ Toxic colonialism refers to the movement of polluting industries to poorer, Third World nations where environmental regulations are less stringent.
9. _____ National environmental organizations often do not put as much priority on controlling toxic pollution exposures as they do on landuse and outdoor recreation issues.
10. _____ In centuries past, wild nature was viewed as desolate and threatening rather than beautiful and comforting.
11. _____ Wild nature today is often viewed as threatened and in need of protection.
12. _____ A society's attitude toward wild nature seems to depend on the level of its technological skills.

Ways of Thinking {pp. 34–41}

Objectives:

8. Describe the scientific method and how it contributes to our knowledge of the world.
9. Describe the views on the relationship between technology and progress.
10. Describe critical thinking and apply its skills to what you read and hear.