

Student name: _____

To say that environmental science is mission oriented means it is

a highly organized endeavor.

essentially an information gathering endeavor.

oriented toward solving problems.

designed to understand relationships.

If everyone in the world lived a lifestyle similar to the average U.S. citizen we would need
_____ more planets to support everyone.

two

four

six

eight

About _____ of the world's people currently lack access to clean water, adequate diet, basic sanitation, and other essential needs.

100 million

300 million

700 million

1.4 billion

Sustainable development means

improving people's lives in the present in a way that can continue far into the future.

providing ever-increasing amounts of adequate housing.

continued growth indefinitely as long as it can be paid off.

utilizing an ever-increasing quantity of natural resources.

The earliest documented recognition that misuse of the natural environment can have nasty consequences was

George Perkins Marsh's 1864 publication of *Man and Nature*.

Rachel Carson's *Silent Spring*, alerting the public to the dangers of pollution in 1962.

Roosevelt's warnings about overuse a century ago.

Plato's writings 2500 years ago.

Which of the following presently provides 80 percent of the energy used in industrialized countries?

fossil fuels

wind

hydroelectric power

solar

The position that nature deserves to be protected in its own right is called

biocentric preservation.

utilitarian conservation.

environmentalism.

global environmentalism.

_____ constitutes 4.6 percent of the world's people yet produces about 50 percent of all toxic waste.

China

Germany

Russia

The United States

The text suggests there is not a strong connection between poverty and environmental degradation.

true

false

Most people agree that global climate change is not a real environmental threat.

true

false

By 2050, the earth is projected to have a population between

8 and 10 billion.

7 and 8 billion.

8 and 9 billion.

10 and 12 billion.

Loss of indigenous cultures is accompanied by loss of unique understanding of nature.

true

false

An important reason for determining the size of a society's ecological footprint is to determine the sustainability of its lifestyle.

true

false

One of the earliest models for conservation in the United States was based on utilitarian conservation, for which nature was conserved not to protect biodiversity, but to provide jobs and resources.

true

false

The first Nobel Prize for environmental action was awarded
in 1912 to John Muir.

in 1973 to David Brower.

in 2004 to Wangari Maathai.

in 1935 to Aldo Leopold.

There is concern over the continued ability to provide adequate food for our growing population because

2/3 of all agricultural lands show signs of degradation.

there is little corporate interest in food production.

agriculture has not benefited from modern technological advancements.

there is little knowledge about how to farm.

The word "environment" comes from a French word that means

life

nature

wildlife

home

to surround

Environmental science is a _____.

narrowly defined set of physical, life, and social sciences

theoretical approach in interpreting the environment

way to see the world in scientific terms

systematic approach in learning about the environment

special set of problem-solving skills

Most environmental problems result from

political differences

complex, interrelated problems

technological development problems

global warming

urban degradation

Which of the following is not true of the term *environment*?

Environment includes our culture.

The environment includes the biosphere.

The environment includes political and social systems.

The environment has issues for which there are no remedies.

The environment includes the relationships between organisms.

The fundamental basis of environmental science as a discipline is the

history of the use of natural resources

diversity of life on the Earth

human impact on the Earth

pollution on the Earth

future use of natural resources

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One major difference affecting the scope of environmental issues of the past and present is the current ability to alter the natural world through technology

relatively new emergence of environmentalists

historical ignorance of the interconnected nature of environmental issues

development of new fields such as environmental science

extremely fast transmission of information through the Internet

In the fourth century B.C., the philosopher Plato wrote of the erosion and deforestation that _____ Greece.

would one day plague

were caused by the excessive population in

were prevalent in countries outside of

had been a problem that was now resolved in

had stripped the fine soils and forests of

Which of the following is **NOT** a problem being addressed by environmental scientists?

finding resources for a human population growing at almost 80 million people a year.

providing clean drinking water.

assessing and finding solutions to climate change.

creating processes that promote sustainability in everyday life.

creating a better transportation system for food distribution to the populace.

A(n) _____ is a tabulation of the demands placed on nature by individuals or nations.

ecological footprint

quantitative analysis value

world biocapacity

land area resource ratio

Most of the early scientific studies of environmental damage were done by

colonial administrators who were often trained scientists

native people of North America

European peasant farmers who understood the connection between deforestation and local climate change

industrial leaders of the nineteenth century who were worried about the degradation caused by factories

scientists in Europe who were worried about deforestation and erosion in their countries

The history of conservation and environmentalism is

based in the Industrial Revolution
largely unrecorded
a relatively new movement
based in the 1970s environmental movement
traceable well back into human history

Mauritius, an island in the Indian Ocean, is a model for balancing nature and human needs because in the eighteenth century a French governor declared the island a nature sanctuary ordered sensitive areas such as steep slopes to be preserved in forests bought the island as a private sanctuary for the government of France supported an extensive environmental education campaign enforced strict punishment for people who damaged any natural resources

Pragmatic conservationists, including Gifford Pinchot and Theodore Roosevelt, supported forest conservation in order to protect wildlife habitats in forested areas untouched, unvisited wilderness areas jobs and homes for people the scenic beauty found in natural areas resources such as natural habitats for future generations

Utilitarian conservationists tend to believe that resources should be saved because they are important as a home for wildlife in the conservation of aesthetic values

to our understanding of the biosphere
for a strong economic system
and used by all living things

The approach that reflects the philosophy that there is waste in neglecting the development and use of certain natural resources (such as dead trees in old growth forests) would best be described as

moral and aesthetic preservation
global environmental citizenship
pragmatic utilitarian conservation
a cornucopian worldview

Biocentric preservationists, first led by John Muir, advocate saving natural areas for their
aesthetic and spiritual values and wildlife habitat
hunting and fishing value
wood and mineral resources for the future
tourism and recreation potential
economic value in cleaning the air and preventing soil erosion

Biocentric preservation is a philosophy that supports the belief that
the biosphere is a central resource for humans
humans must manage resources for maximum productivity
preservation of wildlife is needed for human survival
all living things have a fundamental right to exist and pursue their own interests
all living things have value for humans

The National Park Service reflects a _____ approach while the Forest Service reflects a _____ approach.

biocentric preservationist; pragmatic utilitarian conservationist

global environmentalist; cornucopian

pragmatic resource conservationist; moral and aesthetic preservationist

cornucopian; global environmentalist

pragmatic utilitarian conservation; biocentric preservation

Pollution problems

are relatively new concerns

identify the era of global environmentalism

were recognized at least as early as the eleventh century

are the main issues for technological optimists

Environmentalism stemming from the publication of Rachel Carson's *Silent Spring* differed from earlier North American conservation perspectives by

focusing on human population growth

placing more emphasis on pollution problems

emphasizing international problems

encouraging energy efficiency

emphasizing the value of natural resources

Modern environmentalism is becoming well established in the United States. One of the main reasons for this is probably the _____ in the modern movement.

emphasis on technological remedies

interconnected nature of our global village
combination of activism and research
emphasis on impending doom
greatly expanded international communications

At the end of the twentieth century, _____ has/have been added to environmental thinking.

global concerns

urban problems

water supply and pollution problems

human population growth

air pollution problems

Some of today's leading environmental thinkers, such as Dr. Wangari Maathai of Kenya
have denounced the use of technology
have shown that a slight decrease in human welfare must accompany environmental protection
have focused only on local environmental issues
are linking improved environmental quality with social progress
treat humans as an entity separate from the environment in which they live

The world's population is now more than

70 million.

70 billion.

7 billion.

700 million.

20 million.

Supplies of fossil fuels are
continually expanding in nature
being renewed as fast as we use them
being steadily depleted
almost entirely depleted
easily found through better technology

According to the U.N. Environment Programme how many species have gone extinct in the past century?

almost 100
over 250
563
more than 800
nearly 1,700

The United Nations estimates that at least 3 million people die each year from diseases triggered by

water pollution.
air pollution.
exposure to radiation.
cigarette smoking.
mosquito-borne illnesses.

Evidence of progress in reducing overpopulation and the increased strain on the environment it causes is best illustrated by

the current evidence of a stable population in the developing and developed world

a decrease in the average number of children born to each woman

the current evidence of a globally stable population growth

the decreasing population growth rate in the United States

the current evidence of a stable population in the developing world

If everybody in the world used resources at the rate that people in the United States do,
people would be healthier and happier worldwide.

our current resources would run out quickly.

violent conflicts would decrease because basic needs would be met.

economies would prosper.

more people would experience health problems because people in more prosperous countries
experience more stress.

One way to decrease the size of our ecological footprint is to

decrease consumption rates

increase consumption rates

increase the development in the region

reduce the size of a biologically productive area in the region

None of these; it is not possible to change the size of an ecological footprint

The world's poorest people typically _____ environmental degradation.

cause the most

are victims and causes of

are unaffected by

don't really care about
are ignorant of

Poverty is usually passed on from one generation to the next through
the lack of available opportunities
genetic conditions
improper care of natural resources
illnesses spread by viruses

In general, as per capita GDP (gross domestic product) rises both _____ and _____
increase.

infant mortality; life expectancy
percentage of safe drinking water; rate of infectious diseases
infant mortality; adult literacy
percentage of safe drinking water; adult literacy
total fertility rate; percentage of safe drinking water

Proponents of sustainable development argue that
all development has environmental costs.
development is less important than the environment.
development can proceed with minimal costs to the environment.
the environment is less important than development.
development does not cause environmental damage.

Sustainable development, ideally, improves living conditions

for a few decades into the future.

for the entire current political administration.

as long as resources last.

for generations in the future.

for the present generation.

Sustainable development differs from traditional economic development in that it emphasizes economic development in the

short term.

long term.

present.

past.

present and past.

Which of the following is **NOT** an ecosystem service?

providing fuel to burn

high biodiversity

water purification

production of food

decomposition of waste

The branch of philosophy concerned with the distinction between right and wrong and the ultimate worth of actions of things is

values.

ethics.

morals.

attitudes.

characters.

Ethics should guide decisions made regarding

environmental issues.

economic issues.

development issues.

social justice issues.

All of the issues listed.

The Mineral King Valley court case is important in environmental history because it was a case that argued for the

inherent value of trees, rocks, and wildlife.

instrumental value of trees, rocks, and wildlife.

status of moral agents for trees, rocks, and wildlife.

sustainable development of the area.

moral consideration of sentient things.

Another word for "steward" is

organizer.

caretaker.

participant.

consumer.

leader.

The idea of stewardship is that humans have a/the _____ the environment.
privilege of using
technology to shape
duty to care for
opportunity to degrade
responsibility to use resources in

Environmental justice can be seen as
the power to make laws for a just society.
an issue that is of special interest to the global community.
teaching the values of the environment to improve living standards for people.
a local issue central to the middle-class citizens in the United States.
both a local and an international issue.

The issue that racial and ethnic minorities face unusually high exposure to environmental hazards is a central argument to
sustainable development.
environmental justice.
economic development.
urban renewal.
interpretive science.

Lead poisoning in children is an example that exemplifies the problem of _____ for minority children in the United States.

environmental racism.

inadequate nutrition.

poverty.

sanitary conditions.

inadequate healthcare.

The term "toxic colonialism" has been used in describing

lax environmental regulations for toxic wastes.

the exportation of toxic wastes to poor communities.

rulings that toxins must not be exported to wealthy nations.

the high level of toxic waste production by wealthy nations.

the high level of toxic pesticide use by wealthy nations.

The human development index (HDI)

uses multiple factors including health, education, and poverty to compare the development of countries.

considers GDP per person as a measure of wealth of the country and its development.

is a measurement of environmental degradation of a country.

only considers resource use and income from trade to describe development.

with a score of zero means no problems in health, education, or other quality of life indicators.

Protecting fisheries and regulating fishing to protect fish stocks would be a component of which sustainable development goal?

life below water

affordable and clean energy

industry, innovation, and infrastructure

clean water and sanitation

climate action

Which of the following is the best short description of the sustainable development goals?

a set of international goals to protect the environment and also promote a good and productive life for people

a set of international goals to protect the environment

a plan to increase the wealth of all people by increasing industry

a set of international goals focused on reversing climate change

a set of international goals to combat poverty, but not address the environment

Salt marshes along the coast serve as a nursery site for juvenile fish including those that are important to the fishing industry. It is a natural habitat where these fish can develop before they move out to the ocean habitats. The salt marsh in this example is

an ecosystem service.

the tragedy of the commons.

sustainable development.

biodiversity.

throughput.

Your friend explains that she believes water in rivers should be protected from pollution because that is where many people get their drinking water. In this case, your friend assigns _____ to the rivers.

instrumental value

intrinsic value

moral value

ethical value

moral extensionism

Which of the following is incorrect regarding quality of life indicators for the most-developed countries?

lower carbon dioxide emissions per capita

lower infant mortality

lower total fertility

higher life expectancy

higher female secondary education

Which of the following is a correct pattern for environmental indicators?

As wealth increases, greenhouse gas emissions increase.

As wealth increases, water contamination increases.

As wealth increases air pollution decreases.

As wealth increases air pollution is not a factor.

As wealth increases, the environment is less affected.

Sustainable development is most similar to

utilitarian conservation.

biocentric preservation.

industrialization.

environmentalism.

economic development.

John Muir believed that nature had intrinsic value because it was part of God's creation not because it could be useful to man. This is an example of

biocentric preservation.

utilitarian conservation.

industrialization.

environmentalism.

economic development.

The United Nations estimates that 800 million people suffer from chronic hunger. Which of the following are leading causes for this? (Check all that apply.)

violent conflict

unequal access to resources

climate change

not enough food produced to feed everyone

After calculating an ecological footprint, you realize that some aspects of your impact are not under your control. In a few sentences explain how some environmental impacts cannot be controlled individually.

Which of the following would be a correct description of sustainability? (Select all that apply.)

Sustainability requires using renewable resources at a rate that isn't faster than its ability to regenerate.

Sustainability requires understanding how much pollution or waste the environment can safely absorb and to not exceed that.

To be sustainable, renewable substitutes for nonrenewable resources should be developed.

Sustainability requires never using nonrenewable resources as they will run out

Sustainable use of resources means using equal amounts of renewable and nonrenewable resources.

Answer Key

Test name: CH1 Environmental Science 16E

C

B

C

A

D

A

A

D

FALSE

FALSE

A

TRUE

TRUE

TRUE

C

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A

[A, B, C]

Essay

Many consumption practices must be modified at a higher level. For example, the sources of energy may not be in a person's direct control. Additionally, a community may not be set up for public transportation, bicycles, or walking.

[A, B, C]