

Elemental Geosystems, 9e (Christopherson/Birkeland)
Chapter 1 Essentials of Geography

- 1) A physical geographer would likely NOT study
- A) the impact of a hurricane's landfall along the U.S. East Coast.
 - B) where pollutants move in the atmosphere.
 - C) the 2015 earthquake in Nepal.
 - D) the spread of various religions.

Answer: D

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

- 2) Geography is different from other sciences such as geology and biology because it is
- A) an Earth science.
 - B) a human science.
 - C) a physical science.
 - D) a spatial science.

Answer: D

Chapter/Section: 1.1 The Science of Geography

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Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

- 3) The word spatial refers to
- A) the nature and character of physical space and the distribution of phenomena within it.
 - B) items that relate specifically to society.
 - C) things that are unique and special.
 - D) eras of time.

Answer: A

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.1 Define geography and physical geography.

- 4) Which is NOT true of geographers?
- A) They are Earth systems scientists.
 - B) They are primarily concerned with place names.
 - C) They are concerned with spatial and temporal relationships.
 - D) They use spatial analysis.

Answer: B

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.1 Define geography and physical geography.

5) Geography

- A) is not a science.
- B) does not use systems analysis.
- C) does not consider process in explaining systems.
- D) is derived from geo and graphein; literally, "to write Earth."

Answer: D

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

6) "Geography" literally means

- A) place memorization.
- B) the study of rocks.
- C) map making.
- D) to write (about) Earth.

Answer: D

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

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Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

- 7) The main methodology governing geographic inquiry
- A) is behavioral analysis.
 - B) involves spatial analysis.
 - C) uses chronological organization.
 - D) is field work.

Answer: B

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

- 8) Which of the following best describes the field of physical geography?
- A) Understanding soil development
 - B) Mapping of rock types
 - C) The study of weather
 - D) The spatial analysis of all the physical elements, processes, and systems that make up the environment

Answer: D

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

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Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

- 9) Which of the following most accurately characterizes the goal of geography?
- A) The production of maps
 - B) Memorization of the names of places on world and regional maps
 - C) Memorization of the imports and exports of a country
 - D) Understanding distributions and movements across Earth

Answer: D

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

10) Geography is often divided into the two subfields of

- A) physical geography and human/cultural geography.
- B) physical geography and economic geography.
- C) economic geography and political geography.
- D) political geography and environmental geography.

Answer: A

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.1 Define geography and physical geography.

11) Which of the following is NOT true of scientific theories?

- A) They are based on hypothesis testing.
- B) They are broad in scope because they unify known facts about the world.
- C) They are based on natural laws (such as those pertaining to gravity, relativity, atomic theory, etc.).
- D) They are absolute truths and can never be proven wrong.

Answer: D

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 1. Demonstrate an understanding of the principles of scientific inquiry.

LO: 1.3 Summarize the scientific process.

12) The key idea behind the scientific method is

- A) the use of intuition in testing theories.
- B) an appeal to supernatural explanations when natural explanations have not yet been found for a phenomenon.
- C) the testing of ideas through controlled observations and experiments.
- D) unbridled speculation about the world.

Answer: C

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 1. Demonstrate an understanding of the principles of scientific inquiry.

LO: 1.3 Summarize the scientific process.

13) The scientific method is described by which of the following?

- A) A single, definitive method for doing science
- B) The acceptance of supernatural explanations for phenomenon until science proves otherwise
- C) The development of hypotheses for testing and prediction
- D) Irreproducible results accepted as theory

Answer: C

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 1. Demonstrate an understanding of the principles of scientific inquiry.

LO: 1.3 Summarize the scientific process.

14) Which of the following is TRUE of human population trends?

- A) Most of the growth in population is in the more developed countries (MDCs).
- B) World population reached 8 billion in 1999.
- C) World population reached 7 billion in 2012.
- D) 83% of the world lives in a more developed country (MDC).

Answer: C

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.4 Discuss human population growth as it relates to geographic science.

15) Which of the following is TRUE of human population trends?

- A) People in more developed countries (MDCs) have more impact per person than people in less developed countries (LDCs).
- B) 5% of the world's population lives in a less developed country (LDC).
- C) Almost all of the population growth is occurring in the more developed countries (MDCs).
- D) 83% of the world lives in a more developed country (MDC).

Answer: A

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.4 Discuss human population growth as it relates to geographic science.

16) _____ is mass that assumes a physical shape and occupies space.

- A) Energy
- B) Entropy
- C) Matter
- D) A system

Answer: C

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

17) The capacity to change the motion of, or to do work on, matter is the definition of

- A) energy.
- B) plasma.
- C) thermodynamics.
- D) acceleration.
- E) system.

Answer: A

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

18) Which of the following is an example of a closed system?

- A) A forest
- B) A river drainage basin
- C) An automobile
- D) Earth (in terms of matter)

Answer: D

Chapter/Section: 1.2 Earth Systems Concepts

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

19) In terms of matter and resources, Earth is essentially a(n) _____ system; In terms of energy, Earth is a(n) _____ system.

- A) closed; closed
- B) closed; open
- C) open; open
- D) open; closed

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

20) Which of the following is INCORRECT?

- A) Earth represents a vast integrated system.
- B) Earth represents an open system in terms of energy.
- C) Earth represents a closed system in terms of matter.
- D) Large amounts of new matter are being added to Earth's systems all the time.

Answer: D

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

21) Systems encountered in nature at Earth's surface, such as a forest, are

- A) open systems in terms of energy.
- B) closed systems in terms of energy.
- C) open systems in terms of matter.
- D) both open systems in terms of energy and open systems in terms of matter.
- E) both closed systems in terms of energy and open systems in terms of matter.

Answer: D

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

22) With respect to air, water, and material resources, which of the following is TRUE?

- A) A forest is a closed system.
- B) A forest is an open system.
- C) A forest is an open system in terms of air, but closed in terms of material resources.
- D) A forest is an open system in terms of water, but closed in terms of energy resources.

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

23) What type of feedback maintains stability in a system; i.e., what type of feedback keeps a system functioning properly?

- A) Positive
- B) Negative
- C) Neutral

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

24) Which type of feedback encourages change in a system?

- A) Positive
- B) Negative
- C) Neutral
- D) Not enough information is given to indicate what type of feedback has occurred.

Answer: A

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

25) Which of the following is CORRECTLY matched?

- A) Threshold—balance of inputs and outputs
- B) Steady state equilibrium—feedback encourages change
- C) Dynamic equilibrium—large fluctuations that change abruptly over time
- D) Tipping point—same as steady state equilibrium

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

26) Which of the following best describes the condition of steady-state equilibrium?

- A) System inputs always exactly balance outputs so the system never changes.
- B) System inputs and outputs fluctuate around a stable average so the system does not move far from its average condition.
- C) System inputs produce large, random fluctuations in output, forcing the system into a new state of equilibrium.
- D) Systems slowly adjust to long-term changes in input and output.

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

27) As arctic temperatures rise, summer sea ice and glacial melt accelerates; lighter color surfaces are thereby replaced with darker-colored surfaces leading to more absorption and surface heating. This is an example of a(n) _____ feedback.

- A) negative
- B) positive
- C) reverse
- D) dynamic

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

28) If increased levels of carbon dioxide lead to further increases in temperature by promoting the release of even more carbon dioxide from the oceans, this means that _____ feedback has occurred and that the planet is _____.

- A) positive; in equilibrium
- B) positive; out of equilibrium
- C) negative; in equilibrium
- D) negative; out of equilibrium

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

29) The carbon dioxide absorbed by plants is an example of an _____ to a forest and an _____ from the atmosphere.

- A) input; input
- B) input; output
- C) output; output
- D) output; input

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

30) A large flood in a river may cause abrupt shifts leading to the carving of a new channel. The point when change occurs is a(n)

- A) type of dynamic equilibrium condition.
- B) type of metastable equilibrium.
- C) threshold.
- D) input.

Answer: C

Chapter/Section: 1.2 Earth Systems Concepts

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

31) If global temperatures increased and caused more water vapor to enter the air and more snow to fall in cooler latitudes, then the initial increase in snowfall would be a _____ feedback, whereas a sustained increase in the temperatures could lead to the loss of snow cover even at those latitudes and cause a _____ feedback.

- A) positive; positive
- B) positive; negative
- C) negative; positive
- D) negative; negative

Answer: C

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

32) Which of the following is TRUE of models?

- A) They complicate our understanding of Earth system science.
- B) They perfectly replicate the real world, but at a different scale.
- C) They are simplified, idealized representations of the real world.
- D) They are never used in physical geography because of their inherent limitations.

Answer: C

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

33) According to the text, the three inorganic Earth realms are the

- A) hydrosphere, lithosphere, and atmosphere.
- B) thermosphere, lithosphere, and heterosphere.
- C) atmosphere, geoid, and homosphere.
- D) stratosphere, magnetosphere, and troposphere.

Answer: A

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.1 Define geography and physical geography.

34) Living systems are called

- A) biotic.
- B) inorganic.
- C) part of the lithosphere.
- D) abiotic.

Answer: A

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

35) Which of the following is TRUE of the biosphere?

- A) It is never referred to as the ecosphere.
- B) It is static, never to rarely changing.
- C) It is not connected to the overlapping inorganic spheres.
- D) It extends from the floor of the oceans to 8 km (5 mi.) into the atmosphere.

Answer: D

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.1 Define geography and physical geography.

36) Which of the following is TRUE of the biosphere?

- A) It is more a hypothetical concept than an actual "sphere" in physical geography terms.
- B) Life processes generally are shaped to the abiotic spheres.
- C) It is the least important of the four "spheres."
- D) It only occurs in the hydrosphere.

Answer: B

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.1 Define geography and physical geography.

- 37) The realization that Earth was a sphere
- A) did not occur in Europe until the first voyages of Columbus.
 - B) had to wait until the modern era (1800s).
 - C) was first made by Pythagoras, 580—500 B.C.
 - D) was made by Isaac Newton.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

- 38) Which of the following statements about Earth is CORRECT?

- A) It is elongated.
- B) Earth is the second largest planet in the solar system.
- C) The equatorial diameter is approximately 42 km (26 mi.) greater than the polar diameter.
- D) Earth is perfectly spherical.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

- 39) The oblateness of Earth occurs at the

- A) poles.
- B) equator.
- C) subtropics.
- D) prime meridian.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

40) The diameter of Earth is largest when measured around the

- A) poles.
- B) equator.
- C) subtropics.
- D) prime meridian.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

41) Who divided the circumference of Earth into 360° , with each degree comprising 60 minutes, and each minute comprising 60 seconds.

- A) Pythagoras—in the sixth century B.C.
- B) Sir Isaac Newton—in the seventeenth century A.D.
- C) Magellan—in the sixteenth century A.D.
- D) Ptolemy—in the second century A.D.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

42) A parallel of latitude

- A) is used to measure distances east and west of the prime meridian.
- B) measures longitude.
- C) is called a meridian.
- D) is used to measure distances north or south of the equator.
- E) is a line which passes through both poles.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

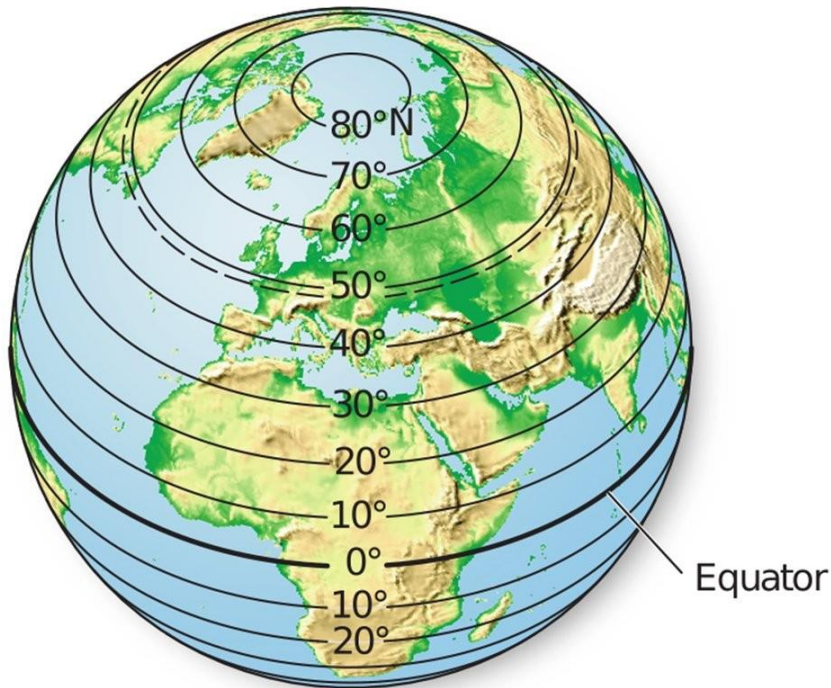
Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

43)



The horizontal lines used to measure angles north and south are

- A) parallels of longitude.
- B) parallels of latitude.
- C) zenith of longitude.
- D) meridians of latitude.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

44) An angular distance measured north or south of the equator is termed

- A) longitude.
- B) latitude.
- C) zenith.
- D) Greenwich distance.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

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Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

45) An angular distance measured east or west of the prime meridian is termed

- A) longitude.
- B) latitude.
- C) zenith.
- D) Greenwich distance.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

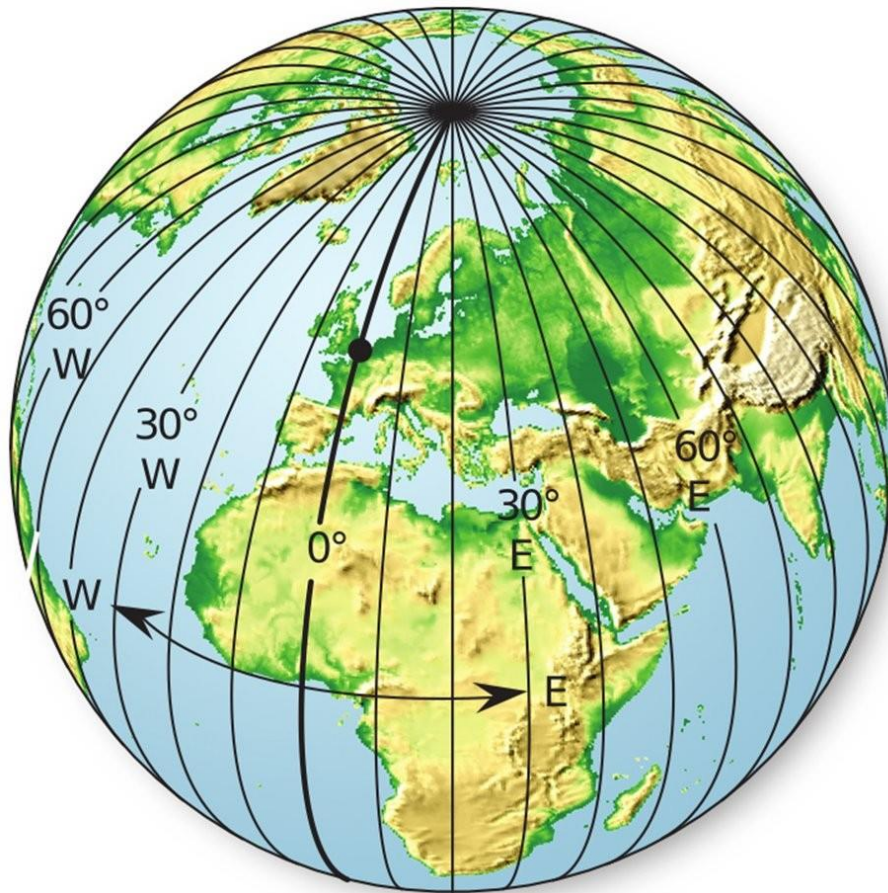
Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

46)



The vertical lines used to measure angles west and east are

- A) meridians of longitude.
- B) meridians of latitude.
- C) zenith lines.
- D) parallels of latitude.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

47) How far north you live from the equator is measured as your _____, whereas an imaginary line marking all those places at that same distance north of the equator is called a _____.

- A) longitude; meridian
- B) meridian; longitude
- C) latitude; parallel
- D) parallel; latitude
- E) location; place

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

48) Which of the following is TRUE regarding the 0° prime meridian?

- A) Earth's prime meridian passes through the old Royal Observatory at Greenwich, England, as set by an 1884 treaty.
- B) The prime meridian passes through Paris, France.
- C) International agreement regarding the location of the prime meridian was not resolved until the 1980s when a treaty was completed.
- D) The key to measuring angular distances east and west of the prime meridian was the development of accurate compasses.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

49) The basis for defining the length of a day is the fact that

- A) Earth rotates east to west.
- B) Earth moves through 365.25 days a year in its orbit about the Sun.
- C) Earth rotates on its axis in 24 hours; i.e., it rotates 15° of longitude per hour.
- D) Earth does not rotate; rather, it revolves.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

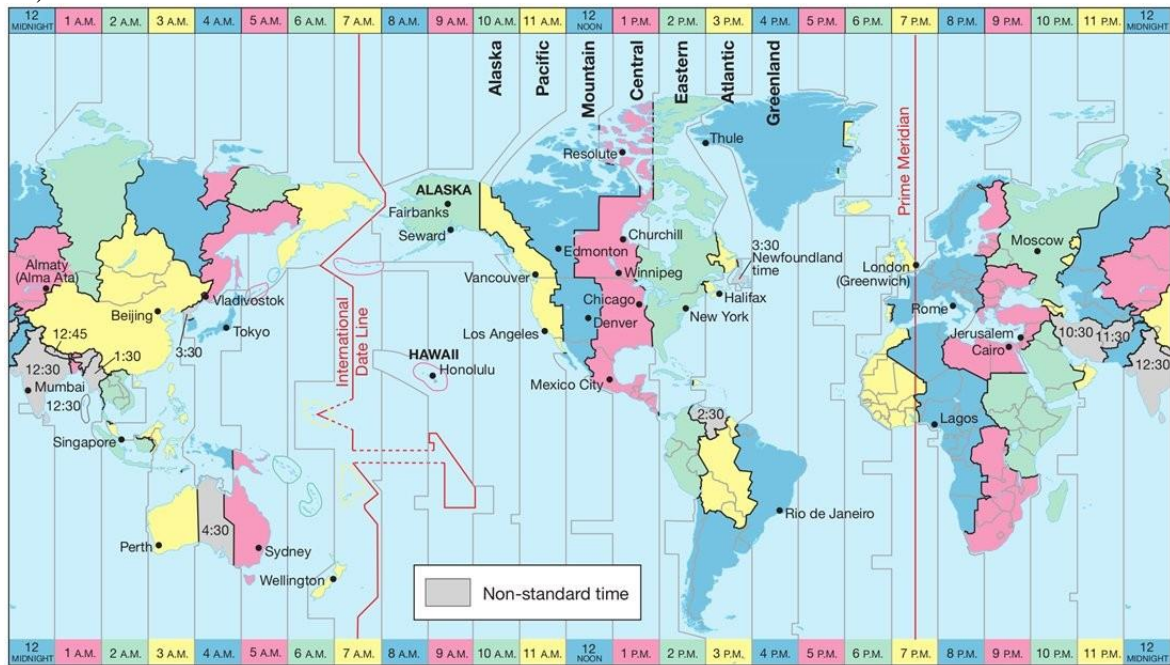
Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

50)



The International Dateline generally follows the

- A) prime (0°) meridian.
- B) 180° meridian.
- C) principal meridian.
- D) daylight savings line.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

51) Latitude is

- A) the angular distance measured north or south of the equator.
- B) the angular distance measured east or west of a prime meridian.
- C) the basis for establishing meridians.
- D) portrayed on a globe as lines that cross the equator at right angles.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

52) Longitude is

- A) an angular distance measured north or south of the equator.
- B) an angular distance measured east or west of a prime meridian.
- C) the basis for establishing parallels.
- D) determined by Sun altitude above the horizon.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

53) If you were standing at 20° north latitude you would be within which latitudinal geographic zone?

- A) Supertropical
- B) Midlatitude
- C) Equatorial and tropical
- D) Subarctic
- E) Subtropical

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

54) If you were standing at 60° north latitude you would be within which latitudinal geographic zone?

- A) Subantarctic
- B) Midlatitude
- C) Antarctic
- D) Subarctic
- E) Subtropical

Answer: D

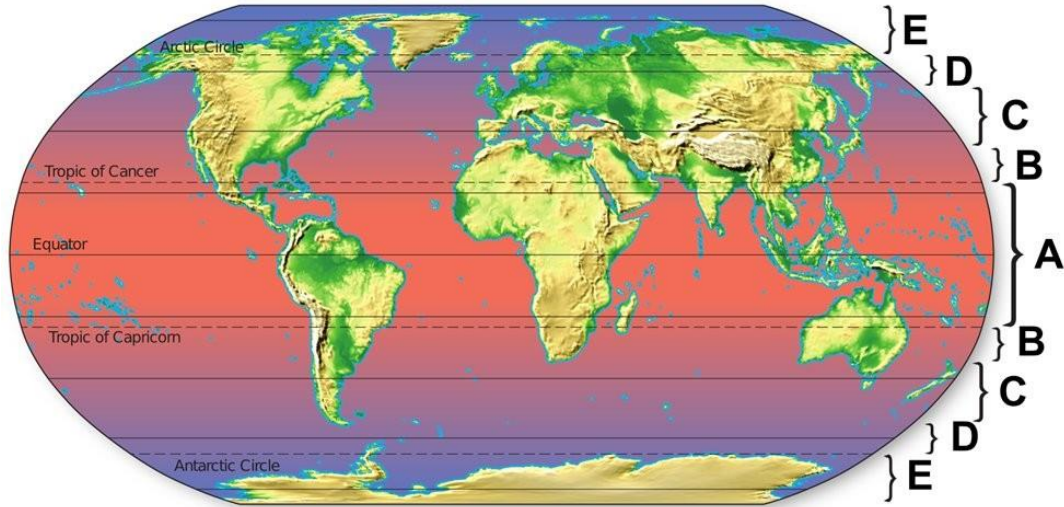
Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 7. Demonstrate the ability to make connections across geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.



55) Which latitudinal geographic zones are correctly matched?

- A) Subtropical: B
- B) Midlatitude: D
- C) Equatorial and tropical: E
- D) Subarctic: C

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

56) Which latitudinal geographic zone is zone C?

- A) Subtropical
- B) Midlatitude
- C) Equatorial and tropical
- D) Subarctic

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

57) A line connecting all points along the same longitudinal angle is called a

- A) meridian.
- B) parallel.
- C) prime latitudinal angle.
- D) great circle.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

58) Which of the following is NOT true of meridians?

- A) They cross parallels at right angles.
- B) They are lines that run in an east-west direction.
- C) All meridians are the same length.
- D) They are used to measure east-west angular distances along parallels.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

59) Which of the following is TRUE of the prime meridian?

- A) It is used to determine latitude using lines that run east and west.
- B) It was first used in the 1500s at the time of initial circumnavigation voyages.
- C) It was not established until 1884 and is centered on an observatory near London.
- D) It is that place on Earth where the days officially change.

Answer: C

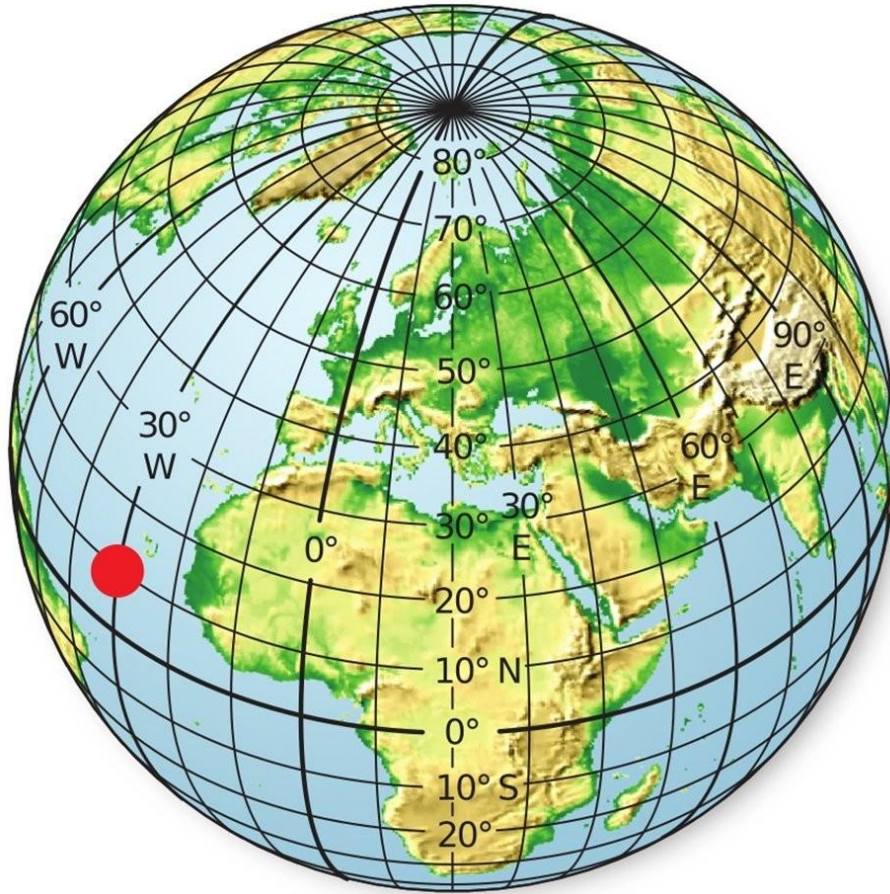
Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.



- 60) The red dot is at
A) 30° north latitude.
B) 10° north latitude.
C) 30° west longitude.
D) 10° north longitude.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

- 61) The red dot is at
A) 30° north, 30° west.
B) 10° north, 30° west.
C) 30° north, 10° east.
D) 10° north, 30° east.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

- 62) Which of the following is TRUE of the 1884 international treaty establishing the prime meridian (0°)?

- A) Each country selected its own prime meridian for its marine maps.
B) The Greenwich meridian was established as the prime meridian by the treaty.
C) The United States designated the Washington meridian for land maps and marine maps.
D) No consensus was met at the 1884 treaty, putting off the decision until a 1907 treaty was passed.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

- 63) A great circle is

- A) any parallel of latitude.
B) the longest distance between two places on the surface of Earth.
C) a circle of circumference whose center coincides with the center of Earth.
D) a correct magnetic compass direction on a flat map.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

64) Earth's equator is an example of

- A) a small circle.
- B) a great circle.
- C) a prime meridian.
- D) a line of equal longitude.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

65) The letters A.M. stand for

- A) after midnight.
- B) after morning.
- C) ante majolica.
- D) ante meridiem.
- E) after meridian.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

66) The letters P.M. stand for

- A) prior majolica.
- B) previous morning.
- C) post meridiem.
- D) possible meridian.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

67) Coordinated Universal Time (UTC)

A) is the same as Greenwich Mean Time (GMT).

B) established 24 standard meridians around the globe at equal intervals from the prime meridian.

C) replaced Greenwich Mean Time (GMT) and became the legal reference for official time in all countries.

D) is two-hours ahead of Zulu time, indicating the single moment when all locations on the planet are on the same calendar day.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

68) UTC refers to

A) the International Date Line.

B) Universal Time Conference.

C) Coordinated Universal Time.

D) Universal Time Circles.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

69) UTC is based on

A) very precise pendulum motion in Greenwich, U.K.

B) Big Ben.

C) average time calculations from atomic clocks collected worldwide.

D) the pulse rate of pulsar stars.

Answer: C

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

70) If City A is located 35° west of City B, the time at City A is _____ that at City B.

- A) earlier than
- B) later than
- C) the same as
- D) earlier during daylight saving only than

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

71) The difference in Sun time between two places located 30° in longitude apart from one another is

- A) 30 seconds.
- B) 30 minutes.
- C) one hour.
- D) two hours.
- E) three hours.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

72) If a clock on a ship indicates that it is 2:00 P.M. in its home port, while another clock on the ship indicates that it is 12:00 noon at the ship's present location, what is the difference in longitude between the ship's position and its home port?

- A) The ship is 2° east of its home port.
- B) The ship is 2° west of its home port.
- C) The ship is 30° east of its home port.
- D) The ship is 30° west of its home port.
- E) The ship is 45° west of its home port.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

73) If you began a trip at 60° west, 20° north and traveled 120° farther west and 50° south, your new position would be

- A) the International Dateline at 70° north latitude.
- B) the International Dateline at 30° south latitude.
- C) the Greenwich meridian at 70° north latitude.
- D) the Greenwich meridian at 30° south latitude.
- E) 30° north, 120° west.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

74) If it is 10:00 PM on July 3rd at 30° west, what date and time is it at 15° east?

- A) July 3rd; 11 P.M.
- B) July 3rd; 9 P.M.
- C) July 3rd; 6 P.M.
- D) July 4th; 1 A.M.
- E) July 4th; 2 A.M.

Answer: D

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

75) Travelers flying west from Los Angeles (118° W) to Tokyo (139° E) will cross the _____ and, as a result, they will _____ when crossing this meridian.

- A) International Dateline; gain a day (Example: Sunday becomes Saturday.)
- B) International Dateline; lose a day (Example: Saturday becomes Sunday.)
- C) prime meridian; gain a day (Example: Sunday becomes Saturday.)
- D) prime meridian; lose a day (Example: Saturday becomes Sunday.)

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

76) Standard time zones

- A) have yet to be generally established.
- B) should be 15° wide because Earth rotates through that distance in one hour.
- C) are only used in the developed countries.
- D) are spaced at 5° intervals of longitude in North America.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

77) If it is 10:00 A.M. in Miami, Florida (Eastern time zone), what time is it in Los Angeles, California, located 3 time zones to the west in the Pacific Time zone?

- A) 7 A.M.
- B) 8 A.M.
- C) 1 P.M.
- D) 2 P.M.

Answer: A

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

78) The practice of setting time ahead or behind during the year, out of coordination with the Sun, is termed

- A) Coordinated Universal Time.
- B) Daylight Saving Time.
- C) Standard time.
- D) Greenwich Mean Time.

Answer: B

Chapter/Section: 1.3 Location and Time on Earth

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.6 Explain Earth's shape and reference grid: latitude, longitude, latitudinal geographic zones, and time zones.

79) The part of geography that embodies map making is known as

- A) theodesy.
- B) geodesy.
- C) cartography.
- D) calligraphy.

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

80) A scale of 1 inch = 8 miles is an example of a

- A) representative fraction.
- B) graphic scale.
- C) written scale.
- D) relative scale.

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

81) A scale of 1:24,000 is regarded as

- A) a large scale.
- B) a small scale compared to a scale of 1:20,900,000.
- C) an intermediate scale.
- D) a scale appropriate for a world globe.

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

82) A scale of 1:900,000 is _____ a scale of 1:24,000.

- A) larger than
- B) equal to
- C) smaller than
- D) twice as much as

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

83) If you wanted a map with a lot of detail of a small area you would want

- A) a large scale map.
- B) a small scale map.
- C) an intermediate scale map.
- D) a world globe.

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

84) A map scale of 1:63,360 is equivalent to

- A) one inch on the map equals 2,000 feet on the ground.
- B) one inch on a map equals 1 mile on the ground.
- C) one inch on a map equals 5 miles on the ground.
- D) one inch on the map equals 24,000 inches on the ground.

Answer: B

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

85) A scale given as "one centimeter to one kilometer" is an example of a

- A) representative fraction.
- B) graphic scale.
- C) written scale.
- D) relative scale.

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

86) Which type of map scale would be appropriate to use if the map were to be enlarged by photocopying?

- A) Written
- B) Graphic
- C) Representative fraction
- D) Relative

Answer: B

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

87) The larger the scale of a map, the _____ the area covered by the map and the _____ detail it provides.

- A) larger; more
- B) larger; less
- C) smaller; more
- D) smaller; less

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

88) Large scale maps have _____ detail than small scale maps.

- A) more
- B) less
- C) It is impossible to compare the relative detail of the same features on maps of different scales.

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

89) The spherical globe is transformed to a 2D surface with a

- A) diagram.
- B) cone.
- C) map projection.
- D) globe.

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

90) Which of the following describes the property of equal area on a map?

- A) Equivalence
- B) Conformality
- C) Proximity
- D) Equidistance

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

91) Which of the following is NOT one of the four classes of map projections?

- A) Planar
- B) Conical
- C) Cylindrical
- D) Spherical

Answer: D

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

92) Which of the following possesses all of Earth's properties of area, shape, direction, proximity, and distance, correctly?

- A) Mercator projection
- B) Albers equal-area conic projection
- C) Robinson projection
- D) A world globe

Answer: D

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

93) Where does the least distortion in a Mercator projection occur?

- A) The equator
- B) Towards the poles
- C) In the middle latitudes
- D) There is no distortion in a Mercator projection.

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

94) A line of tangency (also called a standard line) is a line

- A) that always corresponds to a great circle.
- B) along which shearing occurs.
- C) along which no distortion occurs.
- D) that divides Earth into two equal halves.

Answer: C

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

95) On which one of the following projections do great circle routes appear as straight lines?

- A) Mercator projection
- B) Goode's homolosine projection
- C) Any conic projection
- D) A gnomonic projection

Answer: D

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

96) On the Mercator projection, areas at high latitudes appear

- A) larger than areas of the same size nearer to the equator.
- B) smaller than areas of the same size nearer to the equator.
- C) the same size as areas of the same size nearer to the equator.

Answer: A

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

97) Which map projection is best at eliminating distortion?

- A) Albers equal-area projection.
- B) Mercator projection.
- C) Robinson projection.
- D) All map projections distort.

Answer: D

Chapter/Section: 1.4 Maps and Cartography

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.7 Define cartography and mapping basics: map scale and map projections.

98) Which of the following is TRUE about Global Positioning System (GPS)?

- A) GPS helps monitor movement at Mount St. Helens.
- B) GPS is the same as remote sensing.
- C) GPS is used solely by the military, who share information with physical geographers.
- D) GPS has no scientific uses, but is great for recreational purposes.

Answer: A

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

99) Remote sensing is

- A) a subjective determination of temperature.
- B) the monitoring of a distant object without physical contact.
- C) an earthbound technique not used in modern satellites.
- D) based on the principle that surfaces must be physically handled and directly measured for study.

Answer: B

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

100) A satellite imaging system that beams energy at a surface and then records the energy that is reflected is classified as a(n) _____ system.

- A) active
- B) passive
- C) photographic
- D) holographic

Answer: A

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

101) Which of the following is an example of an active remote sensing device?

- A) Film
- B) Infrared sensor
- C) Video camera
- D) LIDAR

Answer: D

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

102) Which of the following best describes Geographic Information Systems?

- A) A constellation of satellites for accurately determining location anywhere near Earth's surface
- B) Deriving accurate measurements from photographs
- C) Acquiring information about objects without having physical contact with them
- D) Computer-based tool for management and analysis of geographic information

Answer: D

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 3/4 Application/Analysis

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

103) Displaying geographic data visually is called

- A) remote sensing.
- B) geographic synchronization.
- C) geovisualization.
- D) global positioning.

Answer: C

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 1/2 Knowledge/Comprehension

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

104) Why is the term "spatial" so important in geography?

Answer: Answer should note that geography is inherently spatial and that physical geography uses an integrative spatial approach to study entire Earth systems.

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.1 Define geography and physical geography.

105) Describe what distinguishes physical geography from human and cultural geography.

Answer: While a continuum, human geography comprises specialty areas that draw largely on the social and cultural sciences, whereas physical geography draws largely on the physical and life sciences.

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.1 Define geography and physical geography.

106) Follow the scientific method from the initial perception of phenomena to a general theory about the phenomena.

Answer: Real world observations—Hypothesis and Predictions—Experimentation and Measurement—Peer Review—Hypothesis undergoes repeated testing without being shown false—Scientific theory developed.

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.3 Summarize the scientific process.

107) What is a hypothesis? How does it differ from a theory?

Answer: A hypothesis is a tentative (or proposed) explanation of an observed phenomenon. A scientific theory is a well-substantiated explanation of a phenomenon, repeatedly confirmed through observation and experimentation.

Chapter/Section: 1.1 The Science of Geography

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.3 Summarize the scientific process.

108) Use examples to distinguish positive and negative feedback loops.

Answer: A feedback loop is an output from a system that influences its own operations. A negative feedback loop discourages change in the system. An example is predator/prey relationships in which predators keep prey populations in check. A positive feedback loop encourages change in the system. An example is warming temperatures that cause reduction in ice and snow cover and, thereby, decrease albedo and increase absorption, leading to more warming.

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

109) How can feedback affect a system? Give examples of positive and negative feedback.

Answer: Feedbacks can lead to steady state conditions (negative feedback loops) or disequilibrium (positive feedback loops). The reduction of wolves in Yellowstone, for instance, led to an increase in elk populations, which in turn led to a reduction in vegetation cover due to overgrazing.

Chapter/Section: 1.2 Earth Systems Concepts

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.5 Describe open and closed systems, feedback, and equilibrium concepts as they relate to Earth systems.

110) Distinguish between active and passive remote sensing, and describe the applications of each.

Answer: Active remote sensing systems provide their own energy source, emitting radiation towards a target and measuring the reflected radiation from the target, whereas passive sensors measure the energy emitted from objects under investigation.

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.

111) What is a geographic information system? What are some potential GIS applications?

Answer: GIS is a computer-based data processing system for gathering, storing, manipulating, and analyzing geographic information. There are many GIS uses within physical geography.

Chapter/Section: 1.5 Modern Tools for Geoscience

Bloom's Taxonomy: 5/6 Synthesis/Evaluation

Geo Standard: 01. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.

Global Sci. LO: 8. Communicate effectively in writing.

LO: 1.8 Describe three geoscience tools—the Global Positioning System (GPS), remote sensing, and geographic information systems (GIS)—used in geographic analysis.