Q.O.D.

9-30-19 to 10-9-19

Q.O.D

How does the ocean affect weather on Earth?

A. Waves in the ocean push on the air above, which cause storms to form.

B. Water evaporated from the ocean causing clouds to form and send rain back to the Earth.

Answer : B

Q.O.D.

What are the two MOST common factors responsible for a flash flood?

Answer : How much rain is falling and how long the rain lasts

Q.O.D

Ocean currents, like the Gulf Stream, affect the world climate by

A. transferring heat to and from various regions

B. ensuring ocean density is not the same globally

Q.O.D.

What is the main energy source for deep ocean currents that move large volumes of water around the planet?

Answer: radiation from the sun

Q.O.D.

Which widely used energy sources are nonrenewable and also a source of greenhouse gas emission?

A. Wind turbines

B. Fossil fuels

Answer: B

A nonrenewable resource is a resource that does not renew itself at a sufficient rate for human use.

Q.O.D

Carbon dioxide is one of the greenhouse gases that help keep Earth warm enough to support life. Increasing the carbon dioxide in the atmosphere increases the temperature. Below are two tables that show natural and human-made sources of carbon dioxide.

Table 1

Natural Sources of Carbon Dioxide

Source Approximate Percentage

ocean 43

plants and animals (respiration) 28.5

soil (respiration and decomposition) 28.5

TOTAL 100

Table 2

Human-Made Sources of Carbon Dioxide

Source Approximate Percentage

electricity and heat generation 41

transportation 22

industry 20

residential 6

other 11

TOTAL 100

Earth’s atmosphere is getting warmer. Do the data in the tables enable you to determine whether humans are responsible for an increase in Earth’s atmospheric temperature?

A) No, the data do not show the locations of the sources of natural and human-made carbon dioxide in the atmosphere.

B) No, the data do not show how the amounts of carbon dioxide from human and natural sources have changed over time.

Answer: B

Q.O.D

How does the transfer of energy from the Sun to Earth compare with the way energy is distributed in ocean water?

A. Energy from the Sun is transferred through radiation, while energy in the ocean water is distributed by conduction.

B. Energy from the Sun is transferred through radiation, while energy in the ocean water is distributed by convection

Answer: B

Q.O.D.

The Gulf Stream current, which circulates near Ireland, has slowed several times in the past. Evidence of this slowing process has been revealed by the study of fossilized insects.

During these slow periods, how has Ireland MOST likely been affected?

A) There have been changes in tectonic activity.

B) There have been increases in daily tides.

C) There have been increases in sea level.

D) There have been changes in climate.

Answer: D

Q.O.D

Earth’s climate is affected by the amount of solar radiation absorbed by Earth’s surface. After Earth’s surface absorbs solar radiation, the absorbed energy re-radiates into the atmosphere. When this re-radiated energy enters the atmosphere, it excites the molecules of the greenhouse gases that warm Earth.

Some of the Earth’s surfaces are covered in ice and snow. These surfaces are reflective and do not absorb solar energy. As Earth gets warmer, what are the MOST likely effects on Earth’s reflective cover and global temperature?

A. Reflective cover would decrease, raising Earth’s temperature

B. Reflective cover would increase, lowering Earth’s temperature

Answer: A

Q.O.D.

Which of the following could limit the supply of a renewable resource?

A) recycling aluminum cans

B) cutting down trees in forests

C) mining minerals such as gold

D) conserving freshwater resources

Answer: B

Q.O.D

Weather stations built in urban areas can be influenced by human-made structures that surround these stations. Some of these weather stations used to determine mean temperatures in the United States have had the validity of the data questioned. Which human-produces effect could these urban weather stations be measuring?

A. Heat islands

B. Rain shadow

C. Land breeze

Answer: A

· A heat island is the zone of warmer temperature that encloses and is created by large cities. This effect can often raise the temperature of an urban area by as much as ten degrees Fahrenheit.

Q.O.D.

Which of these is the main contributor to the formation of hurricanes?

A) high barometric pressure

B) warm ocean air

C) calm ocean surface

D) dense surface air

Answer : B

Q.O.D

Scientists have developed a number of ways in which farmers can reduce the amount of soil erosion. Which is NOT a way for farmers to reduce soil erosion?

A. Adding fertilizers

B. Strip farming

C. Rotating crops

D. Contour farming

Answer: A

Q.O.D.

Which of these is MOST likely a result of using pesticides on farm crops?

A) rainfall levels could decrease

B) water sources could become polluted

D) caterpillars could become extinct

Answer: B

Q.O.D

Which could limit the supply of a renewable resource?

A. Mining minerals such as gold

B. Cutting down trees in forests

Answer: B

Q.O.D

The Water Quality Act of 1987 required the development of standards that would prevent pollutants from reaching dangerous levels in bodies of water. This affected the amounts of toxic chemicals that could be discharged into bodies of water. Which of the following would have been MOST regulated by this act?

A. Feed lots

B. Paper mills

C. Grocery stores

Answer: B

Q.O.D

When nearly vertical rays of solar energy strike a region of Earth, that area has warm temperatures. What region of Earth gets nearly vertical rays of solar energy year-round?

A. Equator

B. United States

Answer: A