

Earth Cycles

Name: _____

Date: _____

- How do nitrogen-fixing bacteria help cycle nitrogen through ecosystems?
 - They release nitrogen into the atmosphere when they replicate their DNA.
 - They convert sunlight into chemical energy which is then stored in the nitrogen.
 - They convert ammonia from animal feces and urine into forms that plants can use.
 - They capture nitrogen from the atmosphere and convert it into forms that plants can use.
- Complete burning of plant material returns carbon primarily to the
 - herbivores.
 - water.
 - vegetation.
 - atmosphere.
- Carbon in the atmosphere is *most* often found as which of the following compounds?
 - stratospheric ozone
 - fossil fuel
 - carbon monoxide
 - carbon dioxide
- During periods of increased global temperatures, which of the following is *most* likely to occur?
 - a decrease in atmospheric CO₂
 - an increase in atmospheric CO₂
 - a decrease in earthquakes
 - an increase in earthquakes
- Where would nitrogen *most easily* be found in the nitrogen cycle?
 - in animal waste
 - in drinking water supplies
 - in underground mineral deposits
 - in carbon dioxide released by factories into the atmosphere
- In the oxygen cycle, which group of organisms replenishes a large portion of the atmospheric oxygen supply?
 - mammals
 - fungi
 - insects
 - plants

7. Which of the following explains why elements, such as carbon and oxygen, that are used in organic molecules are not permanently removed from the environment?
- A. They are replenished by sunlight.
 - B. They are cycled through ecosystems.
 - C. They are replaced by volcanic eruptions.
 - D. They are produced constantly from nutrients.

8. In the past 100 years, levels of atmospheric carbon dioxide have increased as the result of the burning of fossil fuels. Other processes in the carbon cycle have absorbed some of the carbon released by this combustion.

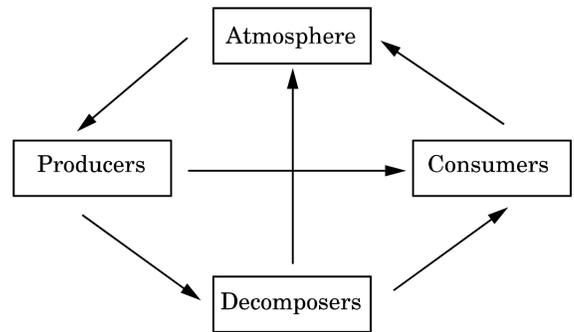
Which of the following *most likely* have absorbed excess carbon released by combustion?

- A. animals
- B. glaciers
- C. plants
- D. rocks

9. Cellular respiration, decomposition, combustion, and photosynthesis are processes that drive which of the following cycles in ecosystems?
- A. the carbon cycle
 - B. the nitrogen cycle
 - C. the phosphorus cycle
 - D. the water cycle

10. What makes fertilizers a benefit to the farming industry?
- A. They increase the nutrients in soil.
 - B. They increase the growth of helpful bacteria.
 - C. They decrease the chance of bacteria growing in the soil.
 - D. They decrease the chance of plants being eaten by insects.

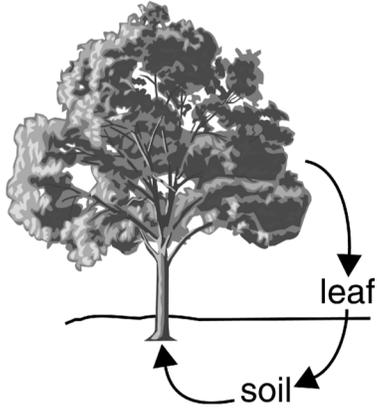
11. This diagram shows the flow of carbon in a terrestrial ecosystem.



Which will *most likely* happen if the decomposers are removed from the carbon cycle?

- A. The amount of carbon dioxide in the atmosphere will increase.
- B. The amount of carbon dioxide in the atmosphere will decrease.
- C. The amount of carbon dioxide used by producers will increase.
- D. The amount of carbon dioxide needed by consumers will decrease.

12. Use the picture below to answer the following question(s).



The picture represents the flow of a nutrient such as phosphorus in a forest. Which organism would make that nutrient available in the soil?

- A. cricket B. woodpecker
C. squirrel D. mushroom

1.
Answer: D
2.
Answer: D
3.
Answer: D
4.
Answer: B
5.
Answer: A
6.
Answer: D
7.
Answer: B
8.
Answer: C
9.
Answer: A
10.
Answer: A
11.
Answer: B
12.
Answer: D