

Brainpop—Carbon Cycle

Name:

Period:

Watch the Brainpop on the carbon cycle, then answer the questions below.

- _____ 1. Where can you find carbon?
- only in Earth's atmosphere
 - as part of water molecules
 - filling the sun
 - inside every living thing on Earth
- _____ 2. How do animals add carbon dioxide to the atmosphere?
- through breathing
 - through evaporation
 - through cellular respiration
 - through transpiration
- _____ 3. What is a carbon sink?
- something that adds more carbon to the atmosphere than it removes
 - something that removes more carbon from the atmosphere than it adds
 - something that adds carbon to the earth's crust
 - something that removes carbon from the earth's crust
- _____ 4. Which of the following is NOT a carbon sink?
- trees
 - oceans
 - plants
 - volcanoes
- _____ 5. How does carbon become locked inside the earth's crust?
- tree roots release carbon into the soil as they grow
 - humans use machines to pump carbon dioxide deep underground
 - rocks create more carbon as time goes on
 - the carbon-rich bodies of plants and animals decay into the earth after they die
- _____ 6. How is carbon trapped in rocks eventually released?
- earthquakes break rocks open
 - forest fires turn rocks into charcoal
 - landslides grind rocks into dust
 - volcanoes erupt lava
- _____ 7. In the years shown below, when has the most carbon dioxide entered the atmosphere?
- 1850-1900
 - 1900-1950
 - 1950-2000
- _____ 8. Which of the following is NOT a source of carbon dioxide emissions?
- clearing rainforests
 - dumping garbage in oceans
 - burning fossil fuels in cars
 - making things in factories
- _____ 9. Using fewer fossil fuels could help restore **equilibrium** to the carbon cycle. What does **equilibrium** mean?
- oxygen
 - balance
 - resources
 - sinks
- _____ 10. How does carbon dioxide gas lead to global warming?
- by trapping the sun's heat in the atmosphere
 - by causing very hot volcanic eruptions
 - by catching fire within the atmosphere
 - by increasing the amount of carbon in the earth's crust
- _____ 11. Which of these is a factual statement about carbon?
- humans use far too much carbon-based fuel
 - carbon is the fourth-most abundant element in the universe
 - there is no relationship between carbon emissions and global climate change
 - burning rainforests helps restore equilibrium to the carbon cycle

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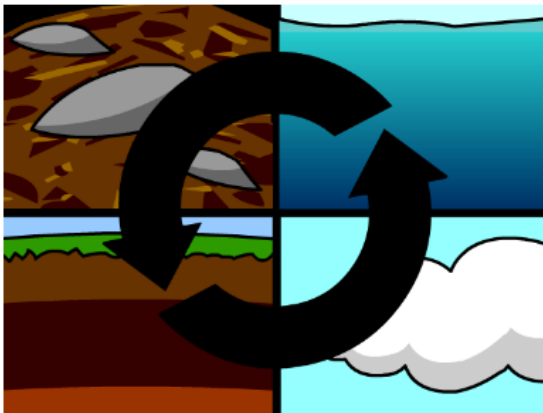
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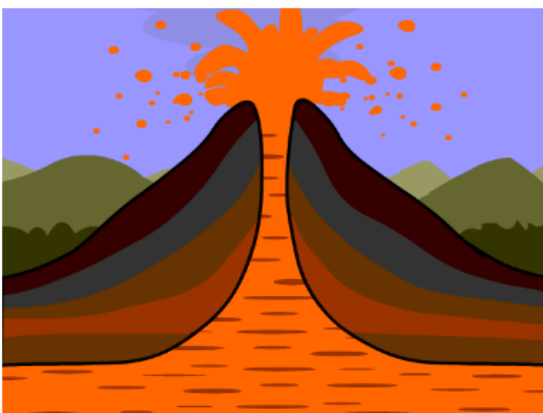
Determine if the statement is true or false. If false, replace the word in **bold** with the correct word on the line. If true, write “true” on the line. Possible word choices are provided below:

carbon dioxide oxygen sink warmer

1. _____ **OXYGEN** is a major contributor to the greenhouse effect.
2. _____ People add **CARBON DIOXIDE** to the atmosphere when they breathe.
3. _____ Trees are a good example of a carbon **FUEL**.
4. _____ Greenhouse gases are making Earth’s atmosphere **COOLER**.



In the Brainpop, you saw the diagram to the left. What do the arrows in the diagram have to do with the carbon cycle?



A student in your class states that the average temperature of Earth’s atmosphere is rising because volcanoes erupt such hot lava. Are they right, or incorrect? Explain your answer.