COMMON MISCONCEPTIONS IN APES

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| **FALSE** | **TRUE** |
| The rainforest has really fertile soil. | The rainforest actually has really poor soil quality due to rapid decomposition and uptake of nutrients. |
| Volcanic lava is secondary succession. | When volcanic lava hardens, primary succession must take place in order to create new soil. |
| Algae uses up oxygen in eutrophication. | It is the aerobic bacteria that use up all of the oxygen in water when the algae begin to die. |
| Ozone depletion causes global warming. | Ozone depletion allows more UV radiation to penetrate, which causes more skin and eye problems. |
| Melting sea ice and increased precipitation causes sea level rise. | Thermal expansion of water and the melting of land based ice (glaciers and polar ice caps) makes sea levels rise. |
| Ozone depletion causes respiratory issues like asthma. | O3 in the troposphere causes respiratory issues, not the depletion of the ozone layer in the stratosphere. |
| Predatory birds were sprayed with DDT and that is how they died. | DDT is a pesticide that biomagnifies through the food chain, thus killing many predatory birds. |
| Runoff of pesticides causes eutrophication. | Runoff of fertilizers causes eutrophication. |
| CFCs emitted from cars causes ozone depletion. | CFCs are emitted from things like coolants and aerosol spray cans. |
| Plastic is the largest component of MSW. | Actually, paper is the largest component of MSW. |
| Acid deposition causes the pH of water to increase. | If something becomes more acidic, then the pH decreases. |
| Ocean acidification is from acid rain. | Ocean acidification occurs because the oceans absorb CO2 from the atmosphere and it turns to carbonic acid. |
| CO2 and CH4 are ozone depleting molecules. | CO2 and CH4 are greenhouse gases. |
| Deforestation puts more CO2 into the atmosphere, thus increasing climate change. | Deforestation reduces the absorption of CO2 from the atmosphere (for photosynthesis), therefore increasing climate change. |
| Melting sea ice releases methane which causes a positive feedback loop. | Melting land-based ice, like permafrost or ice sheets, releases methane which causes a positive feedback loop. |
| CO2 causes respiratory irritation like asthma. | CO2 is a greenhouse gas, but does not cause respiratory irritation like asthma. |

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Turn these false statements into true statements.

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