

CHAPTER 7	Investigation 7.B: Carbon Dioxide and the Rate of Respiration Answer Key	BLM 7.2.4A
ANSWER KEY		

Answer to Analysis Question

1.

Test	Level of oxygen	Level of carbon dioxide
holding breath	decrease the concentration of oxygen in the blood	increases the concentration of carbon dioxide in the blood
hyperventilating	increases the concentration of oxygen in the blood	decreases the concentration of carbon dioxide in the blood
breathing into a paper bag	decreases the concentration of oxygen in the blood	increases the concentration of carbon dioxide in the blood

Answer to Conclusion Question

2. As levels of carbon dioxide increase in the blood, the rate and depth of breathing increases.

Answer to Extension Question

3. Differences in respiration rates could be due to differences in gender, age, size, race, athletic training, or smoking. Your experimental design should control for as many variables as possible. For example, if you want to investigate the difference in the rate of respiration between smokers and non-smokers, you should use subjects that are of the same gender, approximately the same size, and with the same degree of physical activity.