

Name \_\_\_\_\_

## The Breath of Life: Taking in Oxygen and Getting Rid of Carbon Dioxide

### Open-Ended Response Answer Key

1. Possible key points to emphasize include the importance of proper breathing for supplying oxygen to cells, removing carbon dioxide, and maintaining overall health. Highlight how breathing techniques can reduce stress and promote relaxation.
2. Regular exercise increases the breathing rate and lung capacity, improving the efficiency of oxygen exchange. It enhances cardiovascular health, increases lung function, and promotes better overall fitness.
3. One scenario could be running a race. The brain signals the respiratory muscles to increase breathing rate to meet the higher oxygen demand of muscles during intense physical activity.
4. The respiratory system helps maintain the balance of oxygen and carbon dioxide through the exchange of gases in the alveoli. This balance is crucial for energy production and maintaining the body's pH level.

