

Name: _____ *BSCS Essay "The Breath of Life" page 236*

Why does your body need oxygen? _____

What are the central organs of the gas exchange system? _____

What do the tissues of the lungs separate? _____

What happens to air inside the nose? _____

Trace the path of air from the nose/mouth: _____

What are the surfaces of the breathing tubes lined with? _____ and _____

Define cilia: _____

What is the job of cilia? _____

What are the tiny air sacs of the lungs called? _____

How does oxygen get into the body's internal environment? _____

What does a large surface area in the alveoli do? _____

What two systems does the movement of oxygen across alveolar membranes involve?

_____ and _____

What surrounds the alveoli? _____

Diffusion occurs depending on the concentration of oxygen in the air sacs and the blood inside the capillaries.

What does oxygen bind to in the blood? The protein _____

Concentration of carbon dioxide is usually higher in the _____, so carbon dioxide usually diffuses out of _____ and into the _____

When you _____, you release carbon dioxide.

Rapid Exercise:

During rapid exercise the production of _____ increases. _____

_____ causes the blood to become more _____.

_____ in the aorta, brain and arteries leading to the head detect the

increased _____. They send a signal to the _____ in the brain.

The respiratory centers respond by stimulating the _____ and the _____ to contract more rapidly.

This concentration increases the _____.

A faster breathing rate increases the rate at which _____ is brought into the

body. It also increases the rate at which _____ is released from the body.

When you stop exercising, and the rate of carbon dioxide production declines, the blood

becomes less _____ and the signal is reversed so that rib muscles and diaphragm contract more slowly.

Why can't you hold your breath indefinitely? _____
