Respiratory System Worksheet

Although you will be working in a cooperative learning group, each student needs to complete this worksheet.

PART I: After reading the definitions of the structures listed on the next page of the worksheet, label the parts of the respiratory system below. Also answer the following two questions:

(1) How do we breathe?

(2) What is the function (main job) of the respiratory system?
alveoli: Grapelike clusters of round sacs in the lungs; site of gas exchange.

bronchioles: Smaller air tubes in the lungs that are as thin as a strand of hair and end in tiny air sacs called alveoli.

cardiac notch: The indentation in the left lung that provides room for the heart.

diaphragm: A dome-shaped muscle that aids in breathing. The diaphragm also separates the chest (thorax) from the abdomen.

epiglottis: A small flap of tissue attached to the larynx (voice box); when open, it allows air to go into the trachea (windpipe).

Hyaline cartilage rings: 16 – 20 C-shaped cartilage rings that help keep the trachea open for passage of air while allowing the windpipe to bend.

larynx: The structure that contains the vocal cords; also called the voice box.

nose/nasal cavity: The nose is one of the pathways where air enters the body; contains small hairs (cilia) to help filter the air.

pharynx: The pharynx is also called the throat and is located at the back of the nose and mouth. The pharynx is a common passageway for both the respiratory system (air) and the digestive system (food and drink).

pleural membrane: Pleura membrane is a thin lining of connective tissue that surrounds and protects the lungs (pulmonary pleura). Pleura also line the diaphragm and the inside of the chest (thoracic) cavity.

right primary bronchus: The air tube that branches off the trachea and enters the right lung.

right secondary bronchi: Air tubes that branch off the right primary bronchus.

left primary bronchus: The air tube that branches off the trachea and enters the left lung.

trachea: Windpipe located below the larynx is the main tube that brings air into and out of the lungs.

PART II: After looking at diagram below, explain how the exchange of oxygen and carbon dioxide occurs in the lungs