Respiratory System Worksheet

Directions: Fill in the blank below with the words given in the word bank. Use your notes to help you answer the questions.

Alveoli
Asthma
Bronchi
Bronchioles
Diaphragm
Emphysema
Epiglottis
Larynx
Lungs
Pharynx
Respiratory
Trachea

1. The ______________________ are the primary organs of the respiratory system that absorb oxygen from the air and have three parts: bronchi, bronchioles, and alveoli.
2. The ______________________ is also known as the “voicebox” and contains the vocal cords.
3. The ______________________ are the smaller tubes that branch off of the bronchi and hold the alveoli.
4. ______________________ are the tiny air sacs at the end of the bronchioles that are specialized for gas exchange.
5. ______________________ is a condition of the respiratory system caused by damage to the alveoli usually by smoking or inhaling chemicals.
6. The ______________________ is the name of the throat which is a tube that carries both food and air.
7. The ______________________ is the muscle located at the bottom of the rib cage that helps with breathing.
8. The ______________________ system is responsible for bringing in oxygen to the body and removing carbon dioxide.
9. ______________________ is a condition of the respiratory system that causes the bronchi to narrow due to triggers such as dust or pollen.
10. The ______________________ are the larger tubes that direct air into the lungs.
11. The ______________________ is the flap of tissue that covers the larynx to prevent food from going into lungs.
12. The ______________________ is the passageway after the larynx that takes air down toward your lungs.

13. Directions: The respiratory system has 4 functions. Circle the statements below that are only functions of the respiratory system.

   It removes carbon dioxide from the body.  It helps with speech.
   It carries cells that help to fight diseases.  It breaks down food for nutrients.
   It gets oxygen from the environment.  It removes some excess water.
   It maintains body posture.  It carries waste products to the urinary system.
Directions: Write whether the lungs would be *inhaling* or *exhaling* based on the position of the diaphragm described below.

14. Diaphragm is pushed up to make lungs contract  _______________________
15. Diaphragm is pulled down to make lungs expand  _______________________

**Cellular Respiration versus Breathing Respiration**

Directions: Read the passage and answer the questions below in complete sentences.

There are two concepts that people sometimes get confused because they both have the term “respiration” involved. Cellular respiration is related to but different from the respiration that means simply to breathe.

When you inhale, air is drawn into your lungs by the movement of your diaphragm. Air enters your lungs through your nose or mouth, travels down the trachea, through your bronchi into the lungs. As air enters each lung, it is channeled down smaller pathways called bronchioles to reach the alveoli at the ends. It is here that oxygen in your inhaled air is transferred into your blood while carbon dioxide is released. This process is repeated in every breath you take. This process is breathing respiration.

The oxygen being brought in by the lungs is used in the process of cellular respiration. All of the cells of the body are going through cellular respiration in their mitochondria, the powerhouse of the cell. The mitochondria are breaking down glucose using oxygen to release energy. Carbon dioxide and water are also produced at the end of cellular respiration. The carbon dioxide is then taken to the lungs to be exhaled.

16. Explain in your own words how air travels through the respiratory system. ______________
__________________________________________________________________________

17. How are breathing and cellular respiration different from each other? ______________
__________________________________________________________________________

18. Where does cellular respiration occur in the body? ______________
__________________________________________________________________________

19. Would you agree that if cellular respiration in your body stopped, then your breathing would stop? Explain why or why not. ______________
__________________________________________________________________________