



Name: _____

Date: _____

Bill Nye the Science Guy: Respiration

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1. In your upper body there is a strong muscle called the _____.
2. When you inhale, your diaphragm goes _____ and your lungs _____.
3. When your breath in, your body gets _____ from the air.
4. _____ is the same chemical that makes candles burn and iron rust.
5. We combine the oxygen with our _____ to get the energy we need to live.
6. Your _____ are full of tiny little passageways like sponges.
7. These _____ allow you to take in a lot oxygen with each breath.
8. Your lungs have as much surface area as a _____.
9. Surface area is how _____ something is.
10. Your lungs are full of tiny passages (sacs) called _____.
11. Your _____ lung is bigger than your _____.
12. Your right lung is divided into _____ parts, and your left lung is divided into _____ parts.
13. Why is your left lung smaller than your right lung? _____

14. Accumulation of _____ causes pain in our muscles when you are working "at a level more than your lungs can supply".



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15. Cellular _____ occurs when our cells combine chemicals in food with oxygen to store energy in a chemical called _____ (adenosine triphosphate).
16. Your body uses _____ as a sort of _____.
17. Your body _____ energy and _____ later.
18. When you breathe in, your diaphragm _____ and air _____
_____.
19. What happens when you relax your diaphragm? _____

20. We have slime inside our nose and lungs called _____, which traps _____ and _____ and keeps it from _____.
21. Cigarettes put _____ and _____ into your lungs.
22. Every cell in your body does _____.
23. Humans _____ breathe underwater without special equipment, but fish can get dissolved _____ from water using their _____.
24. _____ goes *out* of fish _____ into the water.
25. Every time you breathe in, you take in _____ molecules of air!

Review

1. What muscle causes our lungs to fill up with air? _____
2. What two materials combine to produce energy in respiration?
_____ and _____



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3. What is the name of the tiny air sacs in the lungs? _____

4. Which lung is smaller? _____ Why? _____

5. How does a smoker's lung look different from a healthy lung?
_____ and _____

6. How can you keep your muscles and lungs healthy? _____

7. What causes the pain in your legs if you exercise more than your lungs can supply? _____

8. What is the job of ATP (adenosine triphosphate) in your cells? _____

9. Why doesn't most dust and smoke get into our lungs? _____

10. What harmful substance from cigarettes can get into a person's lungs? _____

11. How is respiration in fish the same as in humans? _____

12. How is respiration in fish different than in humans? _____

13. Unscramble these words to write the equation for **cellular respiration**.

_____ + _____ ---> _____ + _____ + _____
doof genoxy ergyen barcon oxidide etawr