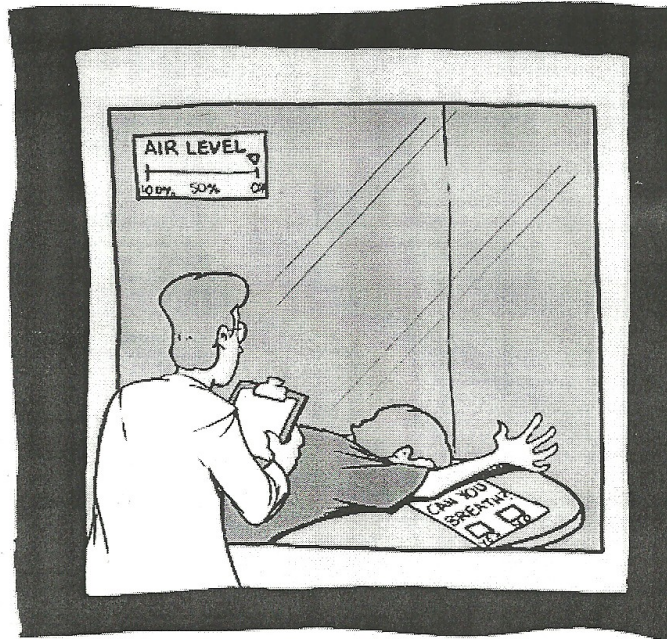


Science 8

Life Science Unit Re-Test

Name: Key

1. You have the whole block to write the test.
2. You may use a 1 pg handwritten "cheat sheet" to assist you.
3. You may not use other notes or the textbook during the test.
4. You must write in pen or pencil.
5. Please answer all questions.



Once again, our study proved inconclusive.

Section 1: Fill in the Blank

Use the following words to fill in the blanks; each word will be used only once, some words will not be used at all:

| | | | |
|---------------|-----------------|----------------|------------------|
| alveoli | diaphragm | nucleus | small intestine |
| allergy | diffusion | osmosis | stimulus |
| antibody | duodenum | peristalsis | stomach |
| artery | epiglottis | plasma | vaccine |
| capillary | esophagus | platelet | vein |
| cell membrane | eukaryotic | prokaryotic | virus |
| cell wall | lysosome | protein | white blood cell |
| chloroplast | large intestine | red blood cell | |
| cytoplasm | mitochondria | ribosome | |

1. The smallest type of blood vessel is called a(n) capillary.
2. The type of blood vessel which carries blood away from the heart is a(n) artery.
3. A(n) stimulus is anything which causes a living thing to respond.
4. The cell wall is the outermost layer of plant cells.
5. The organelle which converts energy from the sun into glucose is a(n) chloroplast.
6. Plant and animal cells are examples of eukaryotic cells.
7. A non-living thing which tricks the host cell into reproducing it is called a(n) virus.
8. The jellylike substance inside cells is called cytoplasm.
9. The movement of particles from an area of high concentration to an area of low concentration is diffusion.
10. The muscle which causes you to breathe is called the diaphragm.
11. The flap of skin which prevents food from entering the trachea is called the epiglottis.
12. In the lungs there are tiny air sacs in which gas exchange occurs, they are called alveoli.
13. The component of blood which carries oxygen and carbon dioxide is called a(n) red blood cell.
14. The component of blood which fights infections is called a(n) white blood cell.
15. The first meter of the small intestine is called the duodenum.
16. The large intestine is mainly responsible for re-absorbing water into the body.

17. Put in the order that foods goes through the digestive system:

mouth, stomach, esophagus, large intestine, small intestine, duodenum, anus

mouth → esophagus → stomach → duodenum →
S intestine → L intestine → anus

✓

Section 2 Matching:

18. Match each step of the scientific method with a description of it (see example)

| | | |
|----------------|-----------------------------------------------------------------------------------------|---|
| A:EXAMPLE | Test your prediction | F |
| C: Observation | Determine if your hypothesis was supported or not. | B |
| D: Hypothesis | EXAMPLE | A |
| E: Prediction | Think of one specific testable thing which would be true if the hypothesis was correct. | E |
| F: Experiment | Choose a topic, do some research. | C |
| B: Conclusion | An educated guess. | D |

✓

19. Match each function with the organelle which performs it. There are more organelles than functions.

| | | |
|-----------------------------------------------------|---------------|---|
| A: Surrounds cell and controls what gets in and out | Cell wall | |
| B: Sorts proteins into vesicles | Cell membrane | A |
| C: Controls activities in the cell | Chloroplast | |
| D: Storage compartment | Nucleus | C |
| E: Cleans the cell | Vacuole | D |
| F: Produces proteins | Ribosome | F |
| G: Produces energy | Vesicle | |
| | Golgi body | B |
| | Lysosome | E |
| | Mitochondrion | G |

✓

20. Match each body system's function with its name, there are more body systems than functions:

| | | |
|---------------------------------------------------------------------------------------------------------------|----------------------|---|
| A: Creates a waterproof barrier around the body | Nervous System | D |
| B: Defends body against infections | Circulatory System | F |
| C: Produces children | Digestive System | E |
| D: Detects changes in the environment and signals these changes to the body which then carries out a response | Respiratory System | |
| E: Takes in food, breaks it down, absorbs nutrients and eliminates solid waste. | Muscular System | |
| F: Makes and releases hormones | Excretory System | G |
| G: Removes liquid and gas wastes from the body | Immune System | B |
| F: Transports blood | Endocrine System | F |
| | Reproductive System | C |
| | Integumentary System | A |
| | Skeletal System | |

Section 3: Short Answer

21. List the 3 concepts of cell theory:

all LS are made of cells
 all cells come from pre-existing cells
 cells are the building blocks of life

18

22. List the 5 types of nutrients the body needs:

fats
 proteins
 carbs
 minerals
 vitamins

13

23. List the 4 ways you can receive an infectious disease:

direct
 indirect
 animal
 food/drink

15

4

24. List the 5 characteristics of living things and give an example of each.

| Characteristic | Example |
|------------------------|---------|
| respond to environment | |
| grow | |
| reproduce | |
| need energy | |
| expel waste | |

25. Give two examples of selectively permeable membranes

cell membrane, coffee filter, border
balloon

/10

26. A cell, which is composed of 70% water, 10% dissolved sugar, and 15% dissolved salts, is put in a beaker which contains a solution which is 60% water, 15% dissolved sugar and 25% dissolved salts. What will happen in terms of osmosis and diffusion if the cell membrane is permeable to water, sugar, and salts.

/2

| | | |
|----------------|----|------|
| | C | B |
| W | 70 | → 60 |
| S _w | 10 | ← 15 |
| S _a | 15 | ← 25 |

/3

27. Explain how active immunity is created.

After the body has fought off a pathogen some of the B & T cells which can destroy the pathogen remain in the body. If you ever get the same pathogen again those B & T cells multiply and easily destroy the pathogen.

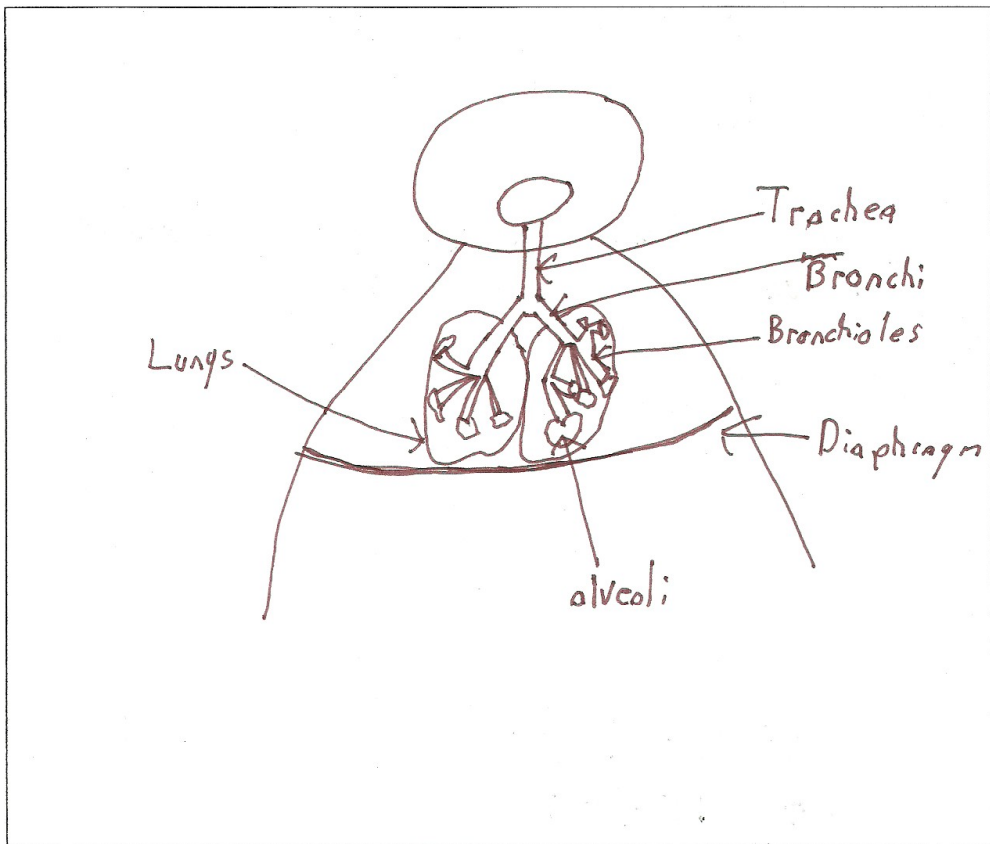
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28. Explain why transplanted organs can be "rejected."

Immune system thinks new organ is a pathogen and attacks it.

29. Create a diagram of the respiratory system with diaphragm, lungs, epiglottis, trachea, bronchi, bronchioles and alveoli labeled.

1



1

