

Respiratory and Circulatory Systems Unit Test Review Sheet

1. As she was dissecting a frog, Kayla noticed that the outside of the heart was covered with a tough protective layer of tissue. What type of tissue is this layer made of?

Muscular tissue

2. List the major organs and structures of the respiratory system.

Lungs, diaphragm, pharynx, larynx, trachea, bronchus, bronchioles, alveoli

3. What are the two functions of the respiratory system?

To bring in oxygen and remove carbon dioxide

4. List several common illnesses that affect the respiratory system.

Bronchitis, emphysema

5. Why is it dangerous to hold your breath for too long?

holding your breath stops oxygen from getting to your brain cells

6. List the organs of the respiratory system in the order which oxygen passes through them as you inhale.

Nose or Mouth, Pharynx, larynx, trachea, bronchi, bronchioles, and alveoli

7. Describe the function of the organ shown to the right.



To transport oxygen and nutrients to the body

8. List the major organs/structures of the circulatory/cardiovascular system.

The heart, blood, blood vessels (arteries, capillaries, veins)

9. Describe the pathway that a red blood cell would take as it leaves the heart through the circulatory system.

Arteries, capillaries, vein, heart

10. Which part of the heart pumps blood to the lungs?

Right ventricle

11. What is the difference between a vein and an artery?

Arteries take blood away from the heart, veins carry blood to the heart

12. Draw a brief sketch of the respiratory and circulatory systems in the space below.

See your diagrams in spiral

13. CO₂ (carbon dioxide) is a gas that is toxic to the human body in large quantities. Which organ system has the function of removing CO₂ from the human body? **Respiratory System**

14. In the Andes (a tall mountain range in South America) people live at elevations about 10,000 ft above sea level. At these high elevations there is less oxygen in the atmosphere. What are some characteristics that would help these people survive in this environment?

Larger lungs

15. List several activities that can negatively affect your respiratory system.

Smoking, and not enough exercise

16. List several things that a person would NOT be able to do if air does not pass through the larynx.

Talk

17. What would happen if your diaphragm muscle stopped working?

You would not be able to inhale or exhale

18. Label the diagram to the right.

See your notes/diagrams

19. Which structure is the site of gas exchange, where O₂ enters the blood and CO₂ and H₂O leave the blood?

Capillaries, Alveoli

20. Why does your heart rate increase as you exercise?

When you exercise your muscles require more oxygen

21. What color is the blood in the veins in your arms (dark red or bright red)?

Dark red (because it is oxygen poor)

22. The diagram to the right is a model of one of the major organs of which organ system?

The circulatory/cardiovascular system

23. Label the diagram to the right.

See your notes/diagrams

24. What organ system has a function similar to that of highways and roads?

The circulatory system

Use the following experiment to answer Questions 25-26.

Mrs. Ocañas divided her 7th period class into two groups of 10 students each. She made the first group of students exercise for 5 minutes and then she measured the length of time they could hold their breath. Mrs. Ocañas made the second group of students sit quietly for 5 minutes, and then measured the length of time they could hold their breath.

25. What question was Mrs. Ocañas trying to answer in this experiment?

Does exercising affect your lung capacity?

26. What is the dependent variable in this experiment?

The lung capacity (L)

Use the diagram to the right to answer Questions 27-29

27. What is the function of the organ system represented by Models A and B?

The Respiratory System

28. What happens to the air pressure inside of the jar in Model A when you pull on the balloon at the bottom of the jar?

More space and lower air pressure

29. T or F: Blood is sometimes blue or purple inside the human body.

False

30. Describe how the circulatory and respiratory systems work together.

The respiratory system brings in the oxygen and the circulatory system transports it.

