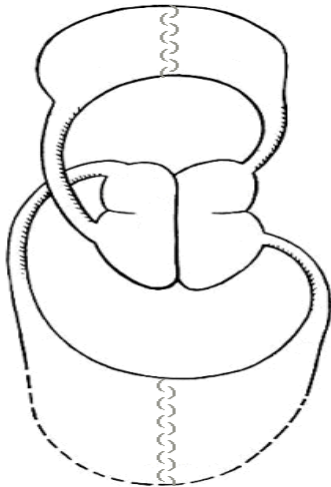


Sixth Grade “The Human Body” Assessment

- 1a. Fill in the blanks with the following words to make the statements correct (lungs, cells, heart).
Blood is circulated around the body by the (1) _____, a two circuit pump.
Blood picks up a fresh supply of oxygen from the (2) _____ and carries it to the heart, which then pumps it to the body’s (3) _____. When it returns, blood containing quantities of carbon dioxide is taken back to heart and then pumped to the lungs where carbon dioxide is removed and oxygen is replaced.
- 1b. Fill in the blanks to make the statements correct.
Blood is circulated around the body by the (1) _____, a two circuit pump.
Blood picks up a fresh supply of oxygen from the (2) _____ and carries it to the heart, which then pumps it to the body’s (3) _____. When it returns, blood containing quantities of carbon dioxide is taken back to heart and then pumped to the lungs where carbon dioxide is removed and oxygen is replaced.
- 1c. Label the following parts of the circulatory system and draw arrows showing the direction of circulation:
Left auricle
Left ventricle
Lungs
Right auricle
right ventricle
Tissues of the body



(Pictures from http://www.lesontutor.com/jm_circulatory.html)

- 2a. Which of the following is not a function of the lymphatic system?
- absorbs fats from the small intestine
 - defends the body against disease through action of red blood cells
 - picks up excess fluid from tissues and returns it to the blood
 - defends the body against disease through action of white blood cells

2b. Of the following organs, which is not considered to be a lymphoid organ? Circle the answer.

lymph nodes thymus gland pancreas spleen

2c. State the function of the lymphatic system:

3a. Why is blood pressure important?

- a. It maintains the body's shape and size
- b. It filters out impurities in the blood
- c. Without it, blood can't circulate through the body and vital organs can't get the oxygen and food needed to work

3b. How is blood pressure created and maintained?

- a. When the heart beats, it pumps blood into the arteries and creates pressure. This pressure causes blood to flow to all parts of the body
- b. Breathing causes increased air pressure, which pressurizes the blood
- c. Gravity forces blood through the body, which automatically maintains pressure
- d. Stress causes muscles to contract, which creates blood pressure

3c. Identify what changes occur in blood pressure as the heart beats

4a. What is meant by the term *arteriosclerosis*?

- a. hardening of the arteries
- b. having a talent for drawing
- c. kidney failure

4b. Explain what is happening to a person's circulatory system when they suffer from arteriosclerosis.

4c. Explain what is happening to a person's circulatory system when they suffer from arteriosclerosis and list one possible cause of arteriosclerosis.

5a. What word in the following sentence does not belong?
The immune system fights infections from bacteria, penicillin, viruses, and fungi.

5b. Name the three infectious agents from which the immune system protects the body.

1. _____
2. _____
3. _____

5c. Describe the function of the immune system.

6a. Which of the following is not a part of natural immune system response?

- a. antigens
- b. white cells
- c. antibiotics
- d. antibodies

6b. Match the following descriptions to their terms:

- | | |
|----------------------|---|
| a. Antigen | 1. Produced in the bone marrow: plays a vital role in the body's defense system |
| b. White blood cells | 2. any material that can trigger the immune system into action |
| c. Antibiotic | 3. binds to an antigen, making it inactive |
| d. Antibody | 4. chemicals that kill bacterial cells but not the cells that make up the body |

6c. Distinguish between specific and non-specific immune responses.

7a. Colds, measles, or meningitis are communicable diseases. Examples of diseases that are non-communicable include cancer, asthma, or arteriosclerosis. A vaccine is more likely to protect you against which type of disease?

7b. Give an example of a communicable and a non-communicable disease. Which is more likely to have a vaccine against it?

Communicable: _____

Non-communicable: _____

7c. Of the two primary classifications of disease, communicable and non-communicable, which is more likely to become an epidemic and to have a vaccine against it? Give an example of such a disease.

8a. Bacterial diseases are treated with antibiotics like penicillin, first discovered by Alexander Fleming. Which of the following is a bacterial disease?

a. tetanus

b. cancer

c. lice

8b. Some infectious diseases can be treated effectively with antibiotics like penicillin, first discovered by Alexander Fleming. What infectious agent can best be treated this way?

a. viral

b. bacterial

c. fungal

d. airborne

8c. Against which type of microbe are antibiotics most effective?

9a. Viruses only grow within cells. There are few tests to detect viruses and few drugs to treat viral illnesses effectively. Bacteria are simple single-celled organisms that usually need water to grow, although they can survive dry conditions. Antibiotics are most effective against bacterial infections.

List the following as either bacterial or viral diseases:

common cold

strep throat

chicken pox

tuberculosis

Viral

Bacterial

9b. Viruses only grow within cells. There are few tests to detect viruses and few drugs to treat viral illnesses effectively. Bacteria are simple single-celled organisms that usually need water to grow, although they can survive dry conditions. Antibiotics are most effective against bacterial infections.

Give an example of each type of infectious disease

Viral _____

Bacterial _____

9c. What is the difference between a bacteria and a virus?

The following Colorado Model Content Standards are addressed in this assessment by the questions indicated:

Questions 6a, 6b, 6c, 9a, 9b, 9c: Standard 2.1a examining, describing, comparing, measuring, and classifying objects based on common physical and chemical properties

Questions 5a, 5b, 5c, 6a, 6b, 6c, 8a, 8b, 8c, 9a, 9b, 9c: Standard 3.3a describing the observable components and functions of a cell

Questions 5a, 5b, 5c, 6a, 6b, 6c, 8a, 8b, 8c, 9a, 9b, 9c: Standard 3.3b comparing and contrasting the basic structures and functions of different types of cells

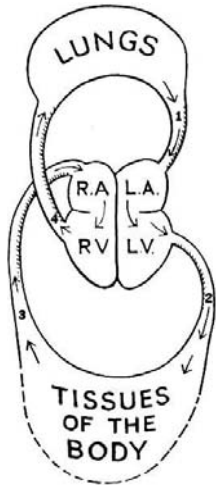
Questions 1a, 1b, 1c, 2a, 2b, 2c, 4a, 4b, 4c, 5a, 5b, 5c, 6a, 6b, 6c: Standard 3.3d describing the structures and functions of human body systems

Questions Standard 7a, 7b, 7c, 8a, 8b, 8c, 9a, 9b, 9c: 3.3e describing and giving examples of non-communicable diseases and communicable diseases

Questions Standard 6e 1a, 1b, 1c: identifying and illustrating natural cycles within systems

Answer Key

- 1a. 1 heart, 2 lungs, 3 cells
- 1b. 1 heart, 2 lungs, 3 cells
- 1c.



(Pictures from http://www.lessonstutor.com/jm_circulatory.html)

- 2a. b. defends the body against disease through action of red blood cells
- 2b. pancreas
- 2c. Acceptable answers could include:
 - defends the body against disease through action of red blood cells

- 3a. c. Without it, blood can't circulate through the body and vital organs can't get the oxygen and food needed to work
- 3b. a. When the heart beats, it pumps blood into the arteries and creates pressure. This pressure causes blood to flow to all parts of the body
- 3c. Acceptable answers could include:
 - The heart beats about 60 to 80 times a minutes under normal conditions. Blood pressure rises on contractions and falls when the heart relaxes between beats.

- 4a. a. hardening of the arteries
- 4b. hardening of the arteries
- 4c. hardening of the arteries
 - Acceptable answers could include:
 - =Eating a lot of fatty foods, genetics, high blood pressure, obesity, and diabetes

- 5a. penicillin
- 5b. bacteria, viruses, and fungi
- 5c. Acceptable answers could include:
 - to protect the body from infections caused by bacteria, viruses, and fungi

- 6a. c. antibiotics
- 6b. a2, b1, c4, d3
- 6c. Answers will vary in completeness, but acceptable answers could include:
 -A first exposure to an antigen brings a nonspecific immune response. Defenses include skin, mucous membranes, chemicals, white cells, antibodies, and the inflammatory response. A specific response happens when the body is exposed to an antigen that it had fought before. In this response, the body recognizes and neutralizes the familiar antigen with a faster, longer lasting immune response.
- 7a. communicable
- 7b. Acceptable answers could include:
 -Colds, measles, or meningitis, etc. are communicable diseases. Examples of diseases that are non-communicable include cancer, asthma, or arteriosclerosis, etc. A vaccine is more likely against communicable diseases.
- 7c. Communicable. (Responses to epidemic question will vary and may include plague, pink-eye, pox, etc., but might also include colds, measles, meningitis...)
- 8a. a. tetanus
- 8b. b. bacterial
- 8c. bacteria
- 9a. Viral Bacterial
 Common cold strep throat
 Chicken pox tuberculosis
- 9b. Answers will vary with instruction, but include:
Viral Bacterial
 Common cold strep throat
 Chicken pox tuberculosis
 Mono gangrene
 Rabies cholera
 Polio leprosy
 AIDS, etc tetanus, etc
- 9c. Acceptable answers could include:
 -Viruses only grow within cells. There are few tests to detect viruses and few drugs to treat viral illnesses effectively. Bacteria are simple single-celled organisms that usually need water to grow, although they can survive dry conditions. Antibiotics are most effective against bacterial infections.