

Grade 9 Science Chapter 6 Review Questions Answers

What is it on?

- **Nutrition**
- **Digestive System**
- **Respiratory System**
- **Blood**
- **Cardiovascular System**
- **Lymphatic System**
- **Excretory System**

Practice Multiple Choice

1. What is absorbed from food in our large intestine?
 - a) Vitamins
 - b) Water**
 - c) Minerals
 - d) Fibre
2. Digestion begins in the mouth. Which of the following is INCORRECT?
 - a) The tongue aids in the digestion of the food.**
 - b) The saliva changes some of the starches in the food to sugar.
 - c) The tongue keeps the food in place in the mouth while the food is being chewed.
 - d) The digestive juices can react more easily with the food when chewed.
3. What happens when food reaches the stomach?
 - a) Nothing. No digestion occurs in the stomach.
 - b) The food moves quickly into the small intestine.
 - c) Juices mix with the food and stomach muscles squeeze it.**
 - d) The food is completely digested and is absorbed by tiny blood vessels in the walls of the stomach.
4. Which of the following does NOT manufacture digestive juices?
 - a) Liver
 - b) Kidneys**
 - c) Stomach
 - d) Pancreas
5. Air can enter the body and travel to the lungs....
 - a) Through the mouth and the nose**
 - b) Through the esophagus
 - c) Through the windpipe and the pores
 - d) Through the nose and the nervous system
6. What happens to the windpipe or trachea before the lungs?
 - a) It branches in two directions**
 - b) It branches into three directions
 - c) It vibrates and creates sounds
 - d) It closes up so that no oxygen can escape

7. When we breathe in, we inhale many gases, including oxygen. What happens to the gases that the body doesn't use?

- a) They are exhaled
- b) They are changed into oxygen by the lungs
- c) They circulate through the body are disposed of later**
- d) They are absorbed into the digestive system and used to create energy

8. Why is oxygen important to blood and to the cells?

- a) Oxygen helps the blood to clot
- b) Oxygen brings food to the cells
- c) Oxygen is necessary for cell growth and energy**
- d) Oxygen is not important – carbon dioxide is the most important substance to the body

9. What part of the blood carries minerals, vitamins, sugar and other foods to the body's cells?

- a) Plasma**
- b) Platelets
- c) Red blood cells
- d) White blood cells

10. What is the function of the blood vessels and capillaries?

- a) They pump blood to the heart
- b) They filter impurities from the blood
- c) They carry blood to all parts of the body**
- d) They carry messages from the brain to the muscles

11. How many major types of blood have scientists discovered?

- a) One: type O
- b) Two: white cells and red cells
- c) Three: white cells, red cells, and plasma
- d) Four: types A, B, AB, and O**

12. What is the organ that pumps blood all throughout the body?

- a) The lungs
- b) The heart**
- c) The kidneys
- d) Blood vessels and capillaries

13. Excretion is the process by which waste products are eliminated by the body. Elimination happens in the urinary system which contains the kidneys, ureters, bladder and urethra. Which structure is responsible for storing the urine until it is released through urination?

- a) Kidneys
- b) Ureters
- c) Bladder**
- d) Urethra

14. Which of the structure below is responsible for the production of urine?

- a) Bladder
- b) Diaphragm
- c) Ureter
- d) Kidney**

15. What is starch broken down to during digestion?

- a) Minerals
- b) Vitamins
- c) Glucose**
- d) Fibre

Short/Long Answer Practice Questions

- 1) What are the 6 nutrients?

Carbohydrates, Proteins, Fat, Minerals, Vitamins, Water

- 2) What is the body's main energy source?
Carbohydrates

- 3) What nutrient(s) found in milk? In chicken?
Milk: Proteins, Fats, Minerals (Calcium), Vitamins

Chicken: Proteins, Fats

- 4) Where is starch first digested? Proteins? Fats?
Starch is digested in the mouth, Protein is digested in the stomach Fats are digested in the small intestine

- 5) Where is water absorbed in digestion?
Water is absorbed in the large intestine.

- 6) What is mechanical digestion? Chemical digestion?
Mechanical digestion is when food is broken down into smaller pieces without changing the nature. Examples of mechanical digestion' teeth breaking food into smaller pieces in the mouth.

Chemical digestion is the break down of complex molecules in food into simpler molecules. An example would be saliva breaking down starch in the mouth.

- 7) List 3 factors that affect energy needs.
Age, gender, weight, level of physical activity, and overall state of health all affect energy needs.

- 8) What is peristalsis?
Peristalsis are muscular contraction that move substances through the digestive tract.

- 9) What muscle controls respiration?
The diaphragm controls respiration.

- 10) What gas enters the lungs in respiration? What gas leaves the lungs?
Oxygen enters the lungs during respiration and carbon dioxide leaves the lungs during respiration.

- 11) What blood vessels bring oxygenated blood away from the heart?
Arteries bring oxygenated blood away from the heart.

- 12) What blood vessels bring deoxygenated blood back to the heart?
Veins bring deoxygenated blood back to the heart.

- 13) What part of the heart pumps the blood?
The right ventricle and left ventricle pump blood.

- 14) Where does gas exchange happen in the circulatory system?
In the circulatory system the gaseous exchange occurs in the capillaries. (In the respiratory system it occurs in the alveoli).

- 15) What are the 4 parts of blood?
Plasma, red blood cells, white blood cells, and platelets are the four parts of blood.
- 16) Who is the universal donor? Who is the universal recipient?
A universal donor is someone with O-blood, they have no substances so they can donate blood to all blood types as they would never add new substances to a blood type.
A universal recipient is someone with AB+ blood, they have all three substances so they can receive blood from any blood type because no one can add new substances to their blood (they already have them all).
- 17) What blood type(s) can donate to A+?
A+, A-, O+, O-
- 18) What blood type(s) can donate to AB-?
A-, B-, AB-, O-
- 19) What is pulmonary circulation? What is systemic circulation?
Pulmonary circulation is blood that is circulating to and from the lungs from the heart.
Systemic circulation is blood that is circulating to and from the body from the heart.
- 20) Why do we have a lymphatic system?
The lymphatic system plays an important role in the elimination of waste from our body, and an important role in the body's immune system (defending against disease).
- 21) How do vaccinations work?
A vaccination is a small or harmless amount of a virus or disease. It allows our white blood cells to create antibodies to fight it and our white blood cells will remember how to fight the virus or disease if our body comes into contact with the disease.
- 22) Where is urine stored?
Urine is stored in the bladder.
- 23) What is the name of the tube that brings urine out of the body?
The urethra carries urine from the bladder to the exterior of the body.
- 24) What do the kidneys do?
Kidneys filter blood of waste and produce urine.
- 25) What is phagocytosis?
The white blood cell engulfing an invader is called phagocytosis.