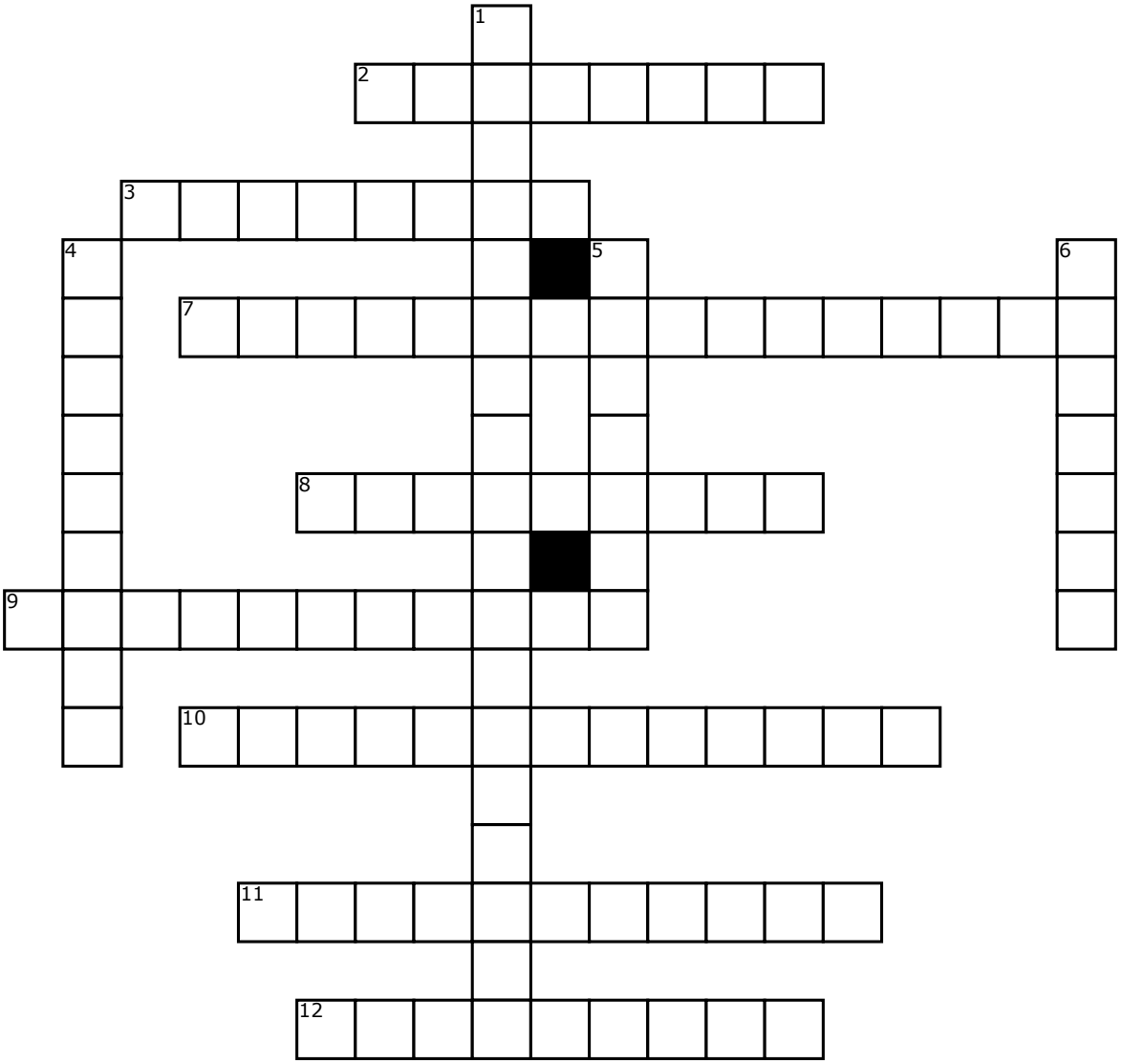
Organ Systems



Across

2. This system supports and protects the body while giving it shape and form. This system is composed of connective tissues including bone, cartilage, tendons, and ligaments. Nutrients are provided to this system through blood vessels that are contained within canals in bone. The skeletal system stores minerals and fats and produces blood cells. It also provides mobility. Tendons, bones, joints, ligaments, and muscles work in concert to produce various movements.

3. This system is responsible for all voluntary movements of human body parts. They provide the force by contracting actively at the expense of energy. In other words, muscles are motors of body where chemical energy of food is converted into mechanical work. This system stabilizes the human skeleton and give a proper posture to human beings. Some joints of human body are weak and they require the support of this system to achieve stability. This sytem is very important for such joints. A large share of body's energy is used by this system. As a result of high metabolic rate, muscles produce great amount of heat in the body. Heat produced by muscles is very important in cold climates. Cardiac muscles provide the main force for circulation of blood throughout human body. The regular pumping of heat keeps the blood in motion and nutrients are readily available to every tissue of human body. Smooth muscles of organs like stomach and intestine help the digestive system in the process of digestion of food.

7. This system stores and moves sperm. The testicles produce sperm. Fluid from the seminal vesicles and prostate gland combines with sperm to make semen. The penis ejaculates semen during sexual intercourse.

8. This system performs three main functions. The system absorbs and transports fats and fat-soluble vitamins, drains excess fluid from body tissues to the blood and aids the body's immune system by filtering out harmful microorganisms from lymph. This system contains lymphatic organs, lymphatic vessels and lymph. Lymphatic organs are typically composed of clumps of lymphocytes and other cells arranged within a network of connective tissue and include the thymus, tonsils, spleen and lymph nodes. Lymphocytes are a critical part of the body's immune response.

9. This system is made up of blood vessels that carry blood away from and towards the heart. Arteries carry blood away from the heart and veins carry blood back to the heart. This system carries oxygen, nutrients, and hormones to cells, and removes waste products, like carbon dioxide. These roadways travel in one direction only, to keep things going where they should.

10. This system comprises the skin and its appendages acting to protect the body from various kinds of damage, such as loss of water or damages from outside. This system includes hair, scales, feathers, hooves, and nails.

11. The main function of this system is the exchange of gases such as oxygen and carbon dioxide in the lungs. Breathing, or respiration, allows this important function to take place. Air carrying oxygen enters the body during inhalation, and air carrying carbon dioxide is expelled out of the body through exhalation. Oxygen is a vital requirement of all cells in order to survive and perform their many functions. Carbon dioxide is mostly a waste product of processes inside the body and is not usually needed by cells.

12. The primary function of this system is to break down the food we eat into smaller parts so the body can use them to build and nourish cells and provide energy. This system is a series of hollow organs joined in a long, twisting tube from the mouth to the anus. Inside this tube is a lining called the mucosa. In the mouth, stomach, and small intestine, the mucosa contains tiny glands that produce juices to help digest food.

Down

1. The main fuction of this system is to produce eggs (ova) to be fetilised, and to provide the space and conditions to allow a baby to develop. In order for this to happen, the female reproductive system also has the structures necessary to allow sperm from a man to meet the ova of a woman.

4. This system is responsible for regulating a range of bodily functions through the release of hormones. Hormones are secreted by the glands of this system, traveling through the bloodstream to various organs and tissues in the body. The hormones then tell these organs and tissues what to do or how to function. Some examples of bodily functions that are controlled by this system include: metabolism, growth & development, sexual function & reproduction, heart rate, blood pressure, appetite, sleeping & waking cycles and body temperature.

5. The main components of this system are two kidneys, two ureters, the urinary bladder, two sphincter muscles and the urethra. Excretion of nitrogenous waste products is the main function of this system, which, if not eliminated from the body, can become toxic and cause the death of an individual. Along with this crucial function, maintaining the volume of blood, blood pressure and blood pH, and stimulating the synthesis of red blood cells and vitamin D, are its other functions.

6. The four primary functions of this system is the sensory, communicative, integrative and motor functions. This system allows the body to respond quickly to various stimuli. The purpose of this system is to coordinate all bodily functions. It has four primary functions that all relate to the areas of the body for which the system handles information.