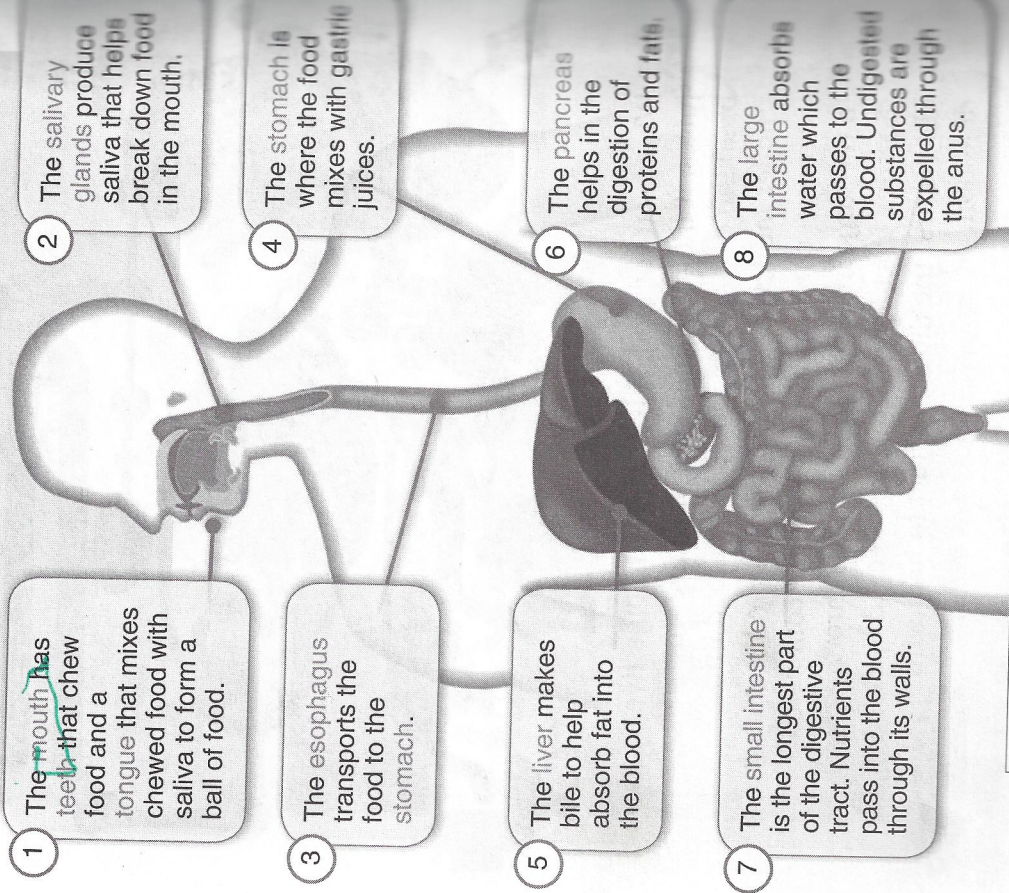
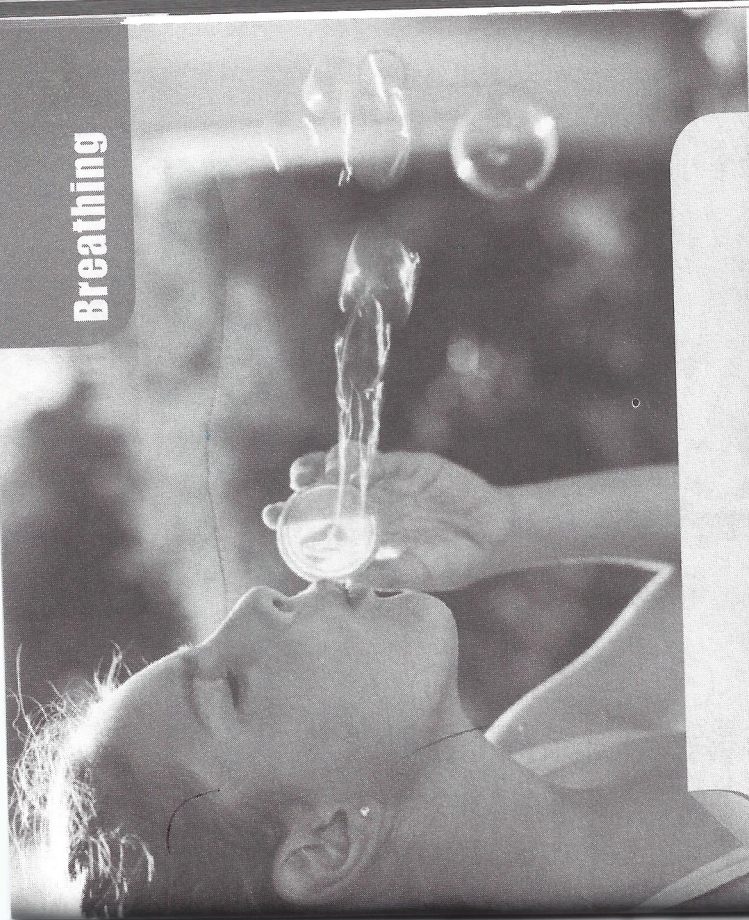


The digestive system

The digestive system transforms food into nutrients. It has two parts, the digestive tract and the digestive glands. The organs that make up the digestive tract are the mouth, esophagus, stomach, small intestine, large intestine (also called the colon), rectum, and anus.

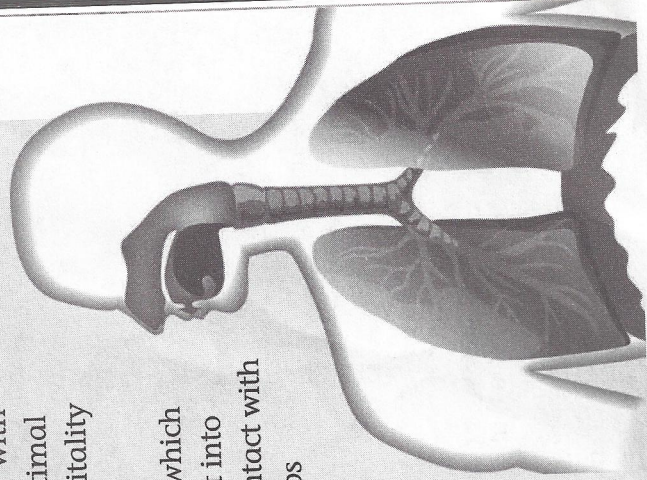


Breathing



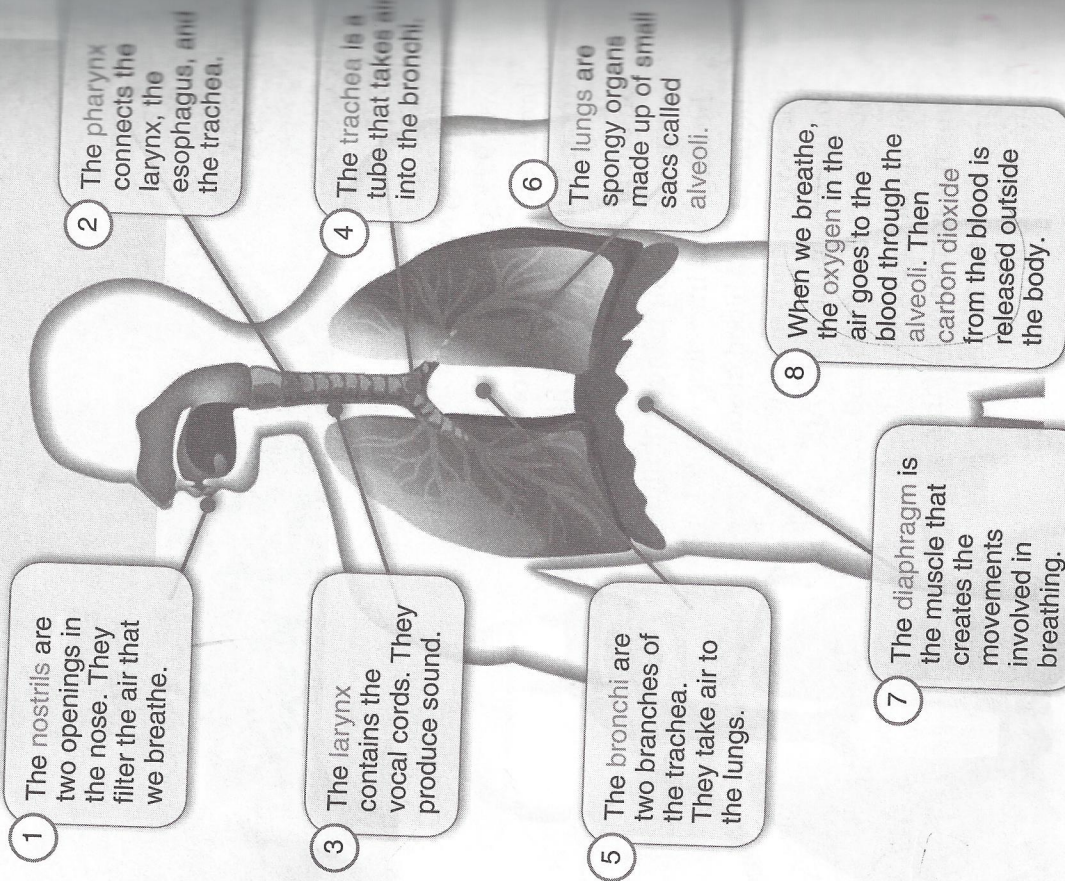
Breathing supplies the body with over 99% of its oxygen. Optimal breathing gives you more vitality and a better quality of life.

Breathing is the process by which oxygen in the air is brought into the lungs and into close contact with the blood. The blood absorbs the oxygen and carries it to all parts of the body. At the same time, the blood gets rid of carbon dioxide, which is carried out of the lungs with the air that is breathed out.



The respiratory system

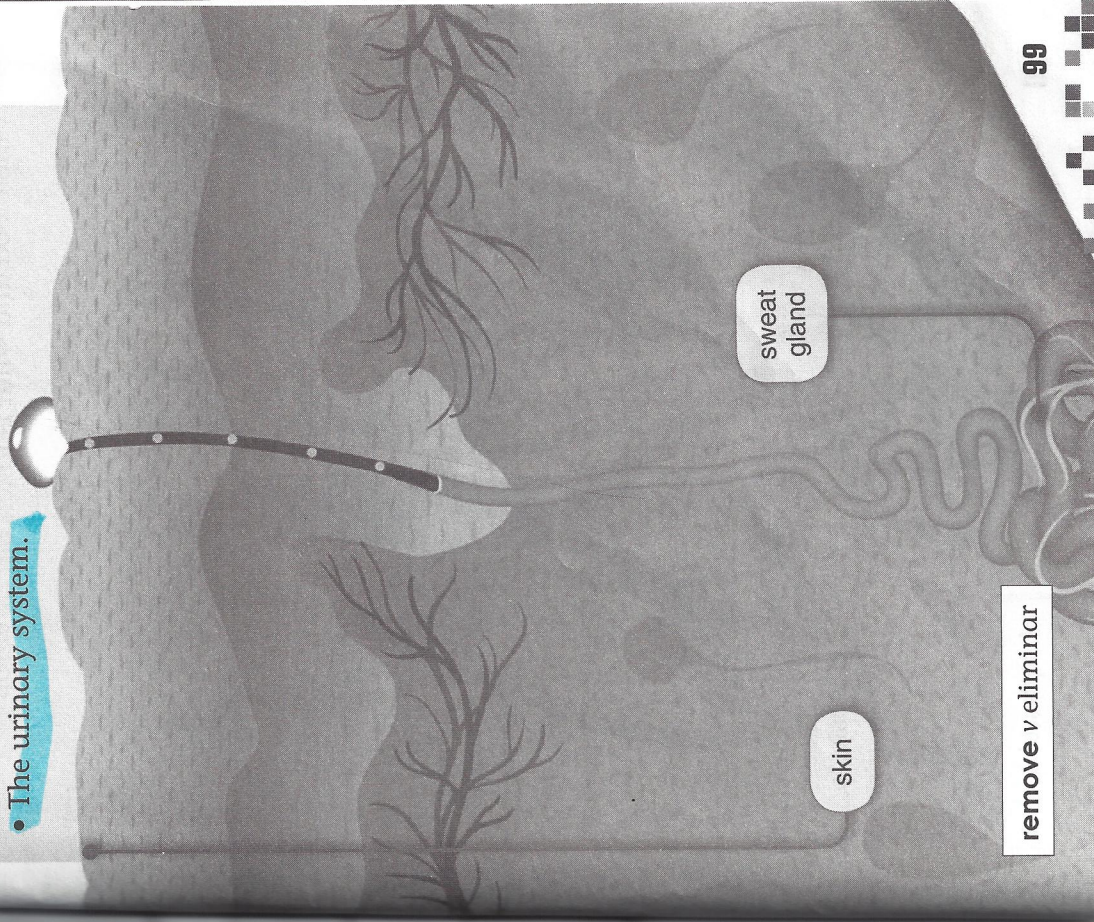
The respiratory system controls breathing. Breathing requires two movements. First, we inhale air and it goes into the lungs. Then we exhale air, sending it out of the lungs.



The excretory system

The excretory system filters waste substances, like carbon dioxide, water, salt, urea, and uric acid from the blood. It removes them from the body through excretion. Parts of the excretory system include:

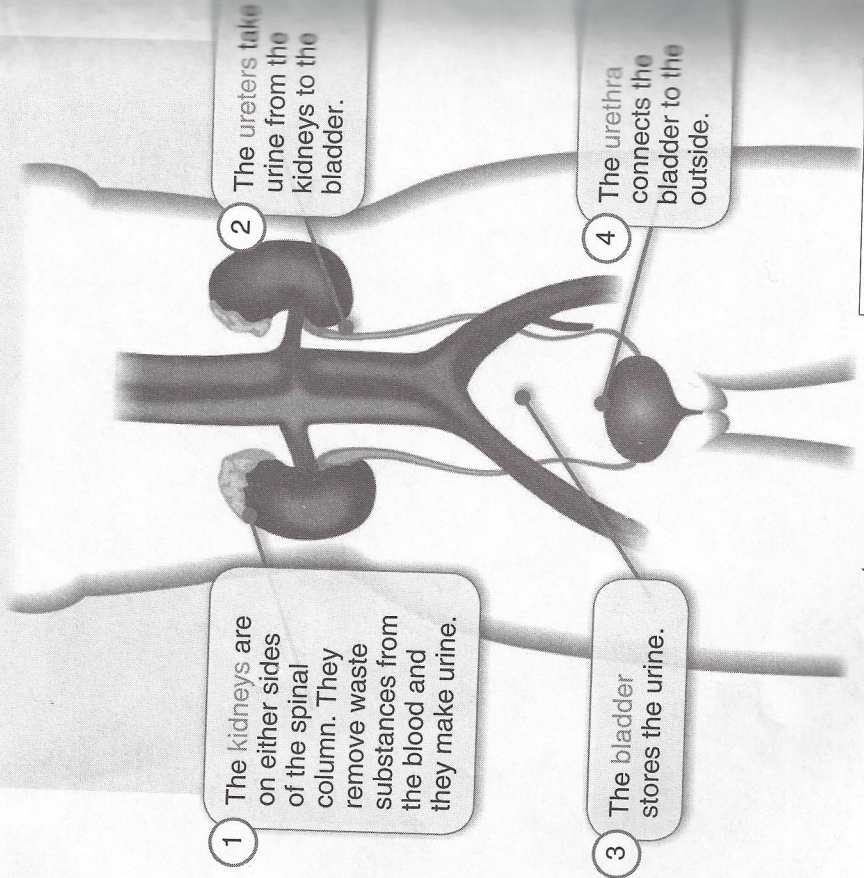
- Sweat glands in the skin that produce sweat.
- The urinary system.



The urinary system

The urinary system is part of the excretory system. Its principal function is to maintain the normal volume and composition of fluids in the body.

The urinary system is formed by the kidneys, the ureters, the bladder, and the urethra. These organs control how much water and salts are absorbed by the blood and what is taken out as waste.



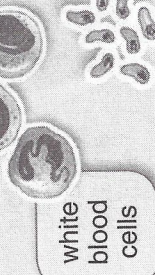
The circulatory system

The circulatory system is formed by the heart, blood, and blood vessels. Blood vessels are divided into arteries, veins, and capillaries.

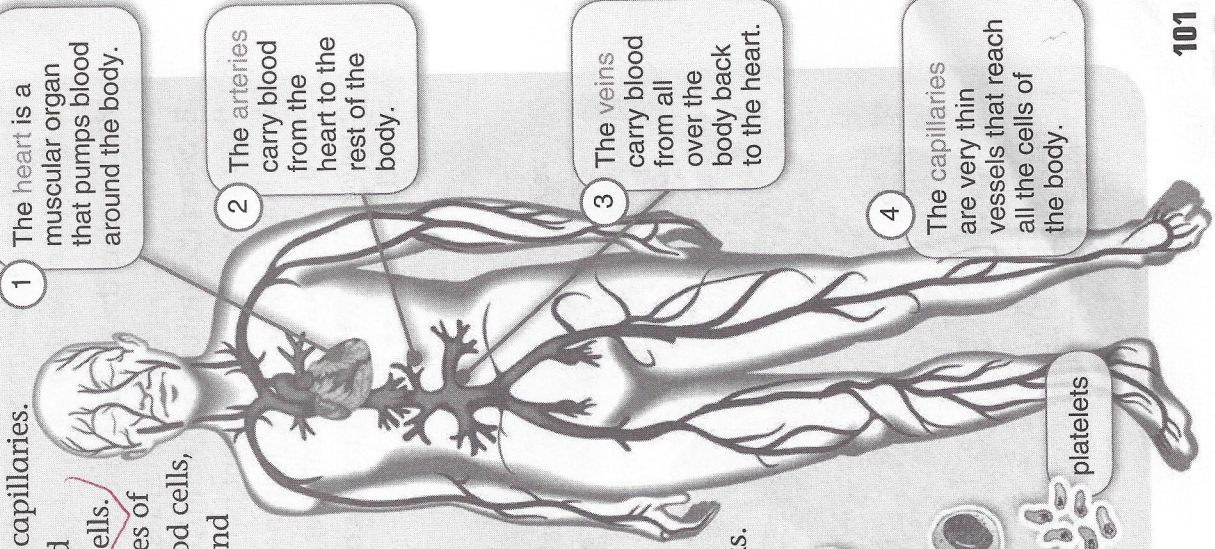
Blood is a red liquid tissue made up of cells.

There are three types of blood cells: red blood cells, white blood cells, and platelets.

Red blood cells carry oxygen, white blood cells remove bacteria and viruses from the blood, and platelets are small fragments of cells that form blood clots when a blood vessel breaks.

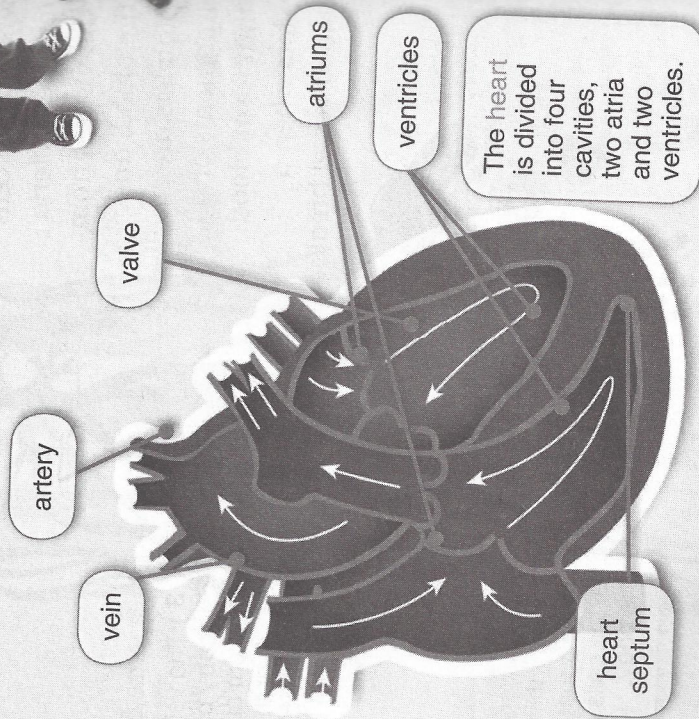


platelets



The heart uses rhythmic movements to pump blood around the body. The systole is the stage of the heart's rhythm when it contracts. The diastole is the relaxation stage.

Blood enters the atriums through the veins and passes to the ventricles. Between the atriums and ventricles there are valves that prevent blood from flowing back to the atriums. Blood comes out of the ventricles through the arteries and travels all over the body.



Blood circulates through the body following two routes. In pulmonary circulation, first the blood with carbon dioxide comes out of the pulmonary artery. Then, in the alveoli, the carbon dioxide is replaced by oxygen. Finally, the blood with oxygen reaches the heart through the pulmonary veins.

In systemic circulation, first the blood with oxygen leaves the heart through the aorta. Then blood distributes oxygen to the entire body and collects carbon dioxide. Finally, the blood with carbon dioxide returns to the heart.

