

UNITED NATIONS COLLEGE IED

PREPARATORY WORKSHOP

FIRST TRIMESTER

NATURAL SCIENCES

The workshop must be developed in the natural sciences notebook

Delivery date: July 15, 2024

The digestive system is a human biological system that breaks down food so it can be absorbed and used by the body.

The gastrointestinal tract (digestive tract), gallbladder, liver and pancreas make up the human digestive system.

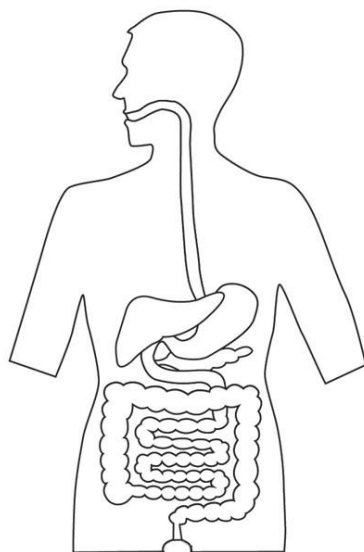
The gastrointestinal tract is one long hollow system of organs that starts at the mouth and ends at the anus.

The six major activities of the digestive system are: ingestion, propulsion, mechanical breakdown, chemical digestion, absorption, and defecation².

1. What are the functions of the digestive system?
2. What organs make up the human digestive system? Describes its functions
3. 3. Through which tube does food reach the stomach?



Digestive system



Read and interpret the following information about the organs that make up the human excretory system

THE EXCRETORY SYSTEM PARTS

KIDNEYS, URETERS, BLADDER AND URINE

YOU CAN MAKE A KEYCHAN WITH THEM!

EXCRETORY SYSTEM: KIDNEYS

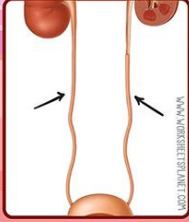
The **kidneys** are a pair of organs on either side of your spine, below your ribs and behind your belly. The kidneys' job is to **filter your blood**. They remove wastes, control the body's fluid balance. **Blood** comes into the kidney, **waste gets removed**, and salt, water, and minerals are adjusted, if needed. Finally, **the filtered blood** goes back into the body. **Waste** gets turned into **urine**.



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EXCRETORY SYSTEM: URETERS

The **ureters** are tubes made of smooth muscle fibers that propel **urine** from the **kidneys** to the urinary **bladder**. In the human adult, the ureters are usually 25-30 cm long and around 3-4 mm in diameter. The ureter is lined by **urothelial cells**, and has an additional smooth muscle layer to assist with peristalsis.



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EXCRETORY SYSTEM: BLADDER

The **urinary bladder** is a hollow and elastic muscular organ that collects and stores **urine** from the kidneys before **urination**. The bladder sits on the pelvic floor. Urine enters the bladder via the **ureters** and exits via the **urethra**. The human bladder will hold between **3 and 5 ml** before the urge to empty occurs, but can hold considerably more.

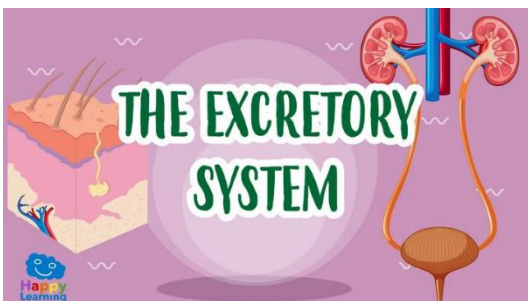


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5 Why do you think the kidneys are so important to fulfill the excretory function?

6 What tubes carry urine from the kidneys to the bladder?

7. What is the path of urine from the time it is formed until it is expelled?



Excretion also includes, in addition to the lungs and excretory system, the sweat glands and sweat.

The sweat glands form sweat, which is a liquid composed almost entirely of water, but also contains a small part of salts and waste substances.

Sweat glands are spread throughout the skin. Each gland consists of a long tube that is rolled up to form a kind of balloon and communicates with the outside through the pores.

of the skin, through which sweat comes out.

Sweat is a natural coolant for our skin. Its main function is to cool us, since when it evaporates it cools the surface of our body.

Sweat is made up of water, waste substances and mineral salts, so when we lose a lot of sweat it is necessary to recover it with water or isotonic drinks.

9 ¿What does the text mean when it says that sweat is a natural coolant?

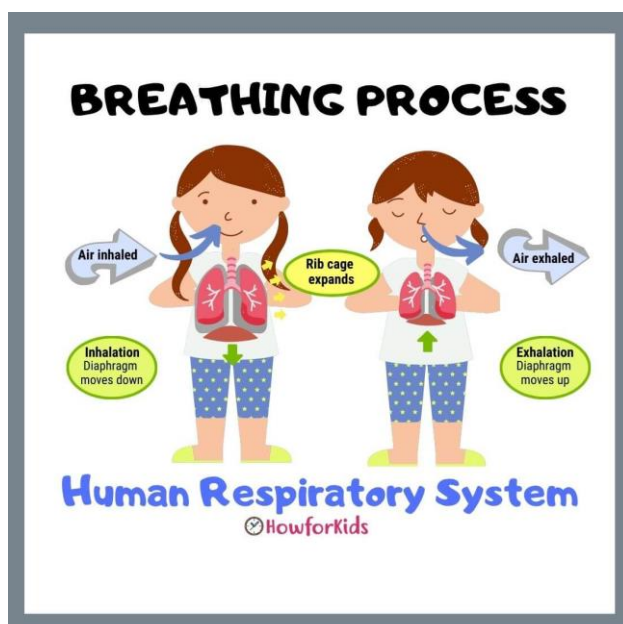
10 ¿What do you think can happen to us if we lose a lot of water when we sweat and do not replace it by drinking water or isotonic drinks?

11 do you think it is essential to eliminate harmful substances from our body?

Lee la siguiente informacion sobre el sistema respiratorio

The human respiratory system includes several parts: nasal cavity, throat, voice box, windpipe, bronchi, and lungs. Air enters this system through the nose. It then moves into the nasal cavity, a hollow space behind the nose. Air also enters through the mouth.

The lungs and respiratory system allow us to breathe. They: 1. Bring oxygen into our bodies (called inspiration, or inhalation). 2. Send carbon dioxide out (called expiration, or exhalation). This exchange of oxygen and carbon dioxide is called respiration.



12 ¿What is the process of inhalation and exhalation?

What gases are involved in the process of human breathing?

Locate the organs of the respiratory system and write down their function

