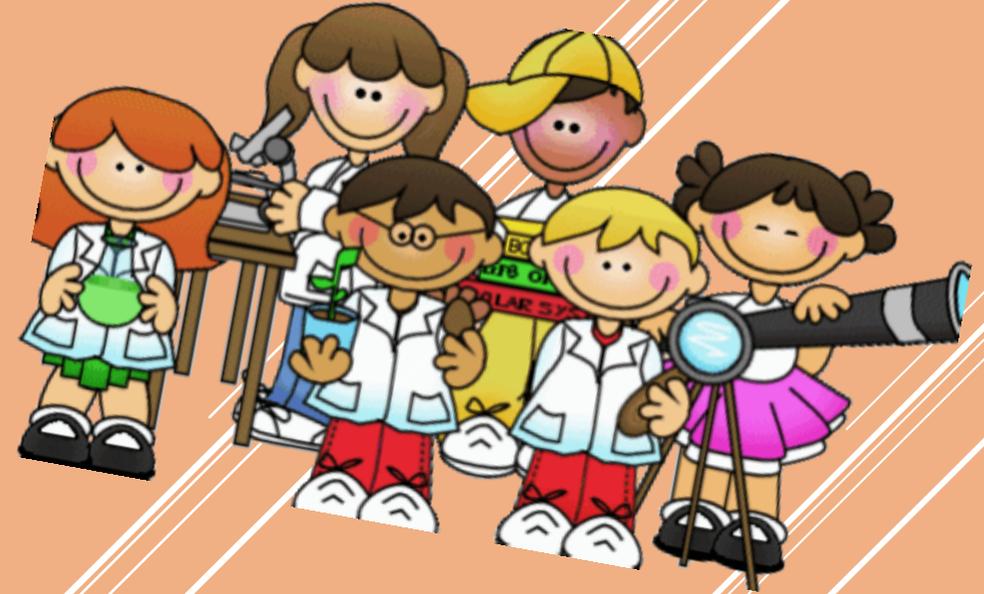
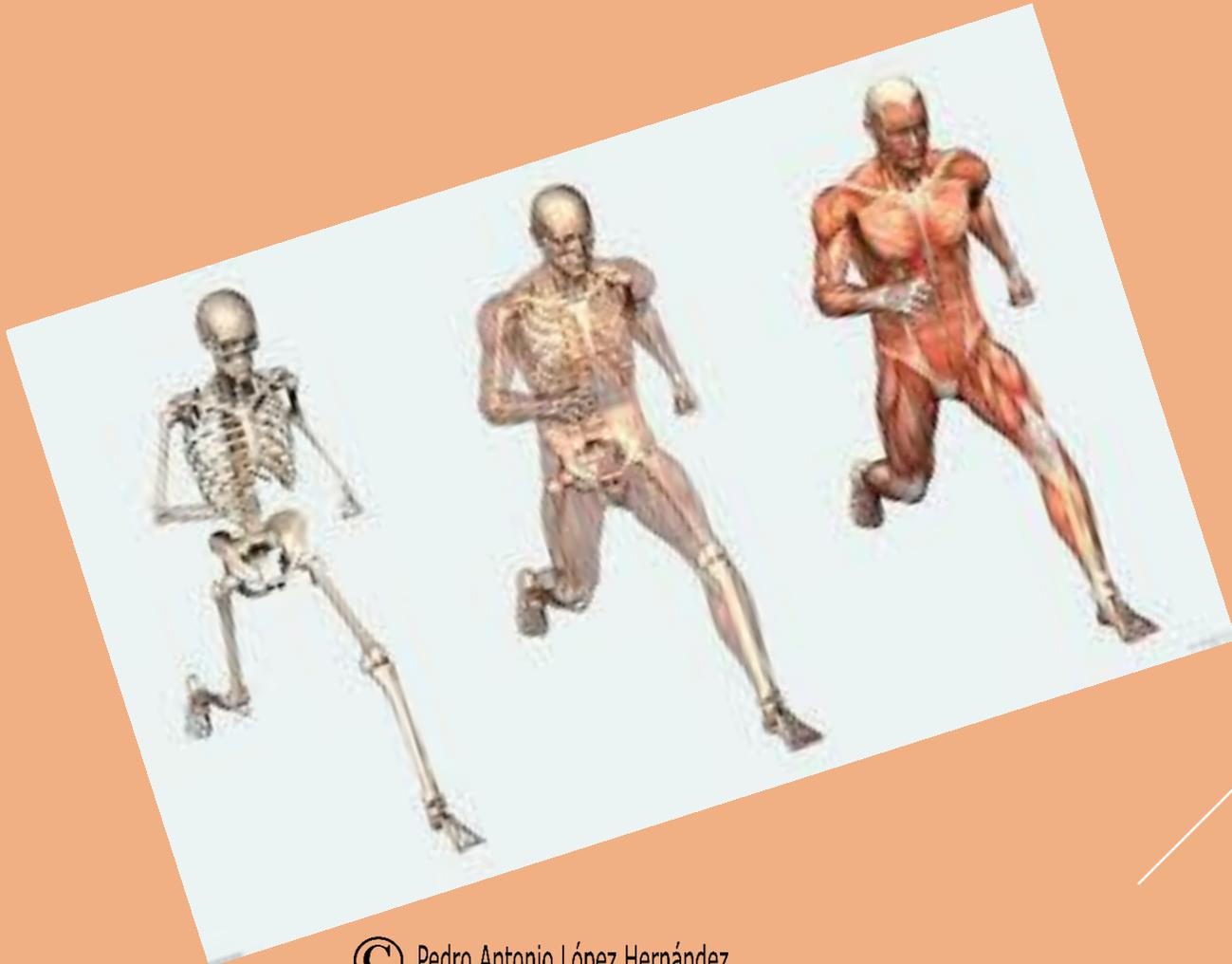


UNIT 4. THE HUMAN BODY



PRIMARY 4 / Natural Science

Pedro Antonio López Hernández

THE CIRCULATORY SYSTEM

It distributes nutrients and oxygen to different parts of the body and gets rid of unwanted substances

Parts of the circulatory system

Blood

It is a red liquid that contains the nutrients and oxygen that our body needs.

It also carries the unwanted waste substances that our bodies need to remove.

Blood vessels

They transport the blood around the body.

There are three types:

Capillaries

They are very thin vessels that connect the arteries with veins.

Veins

They carry blood from the rest of the body to the heart.

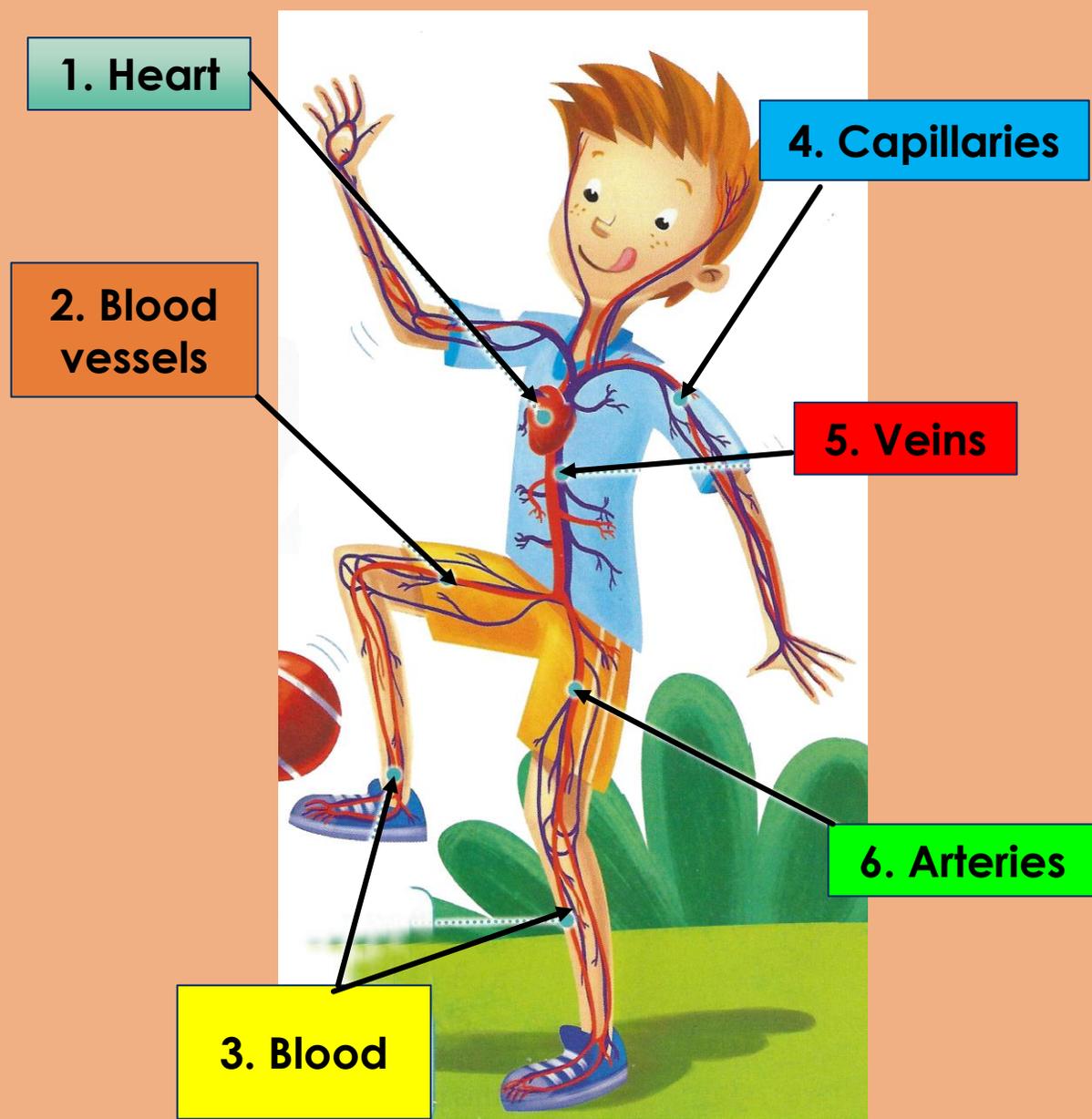
Arteries

They carry blood from the heart to the rest of the body.

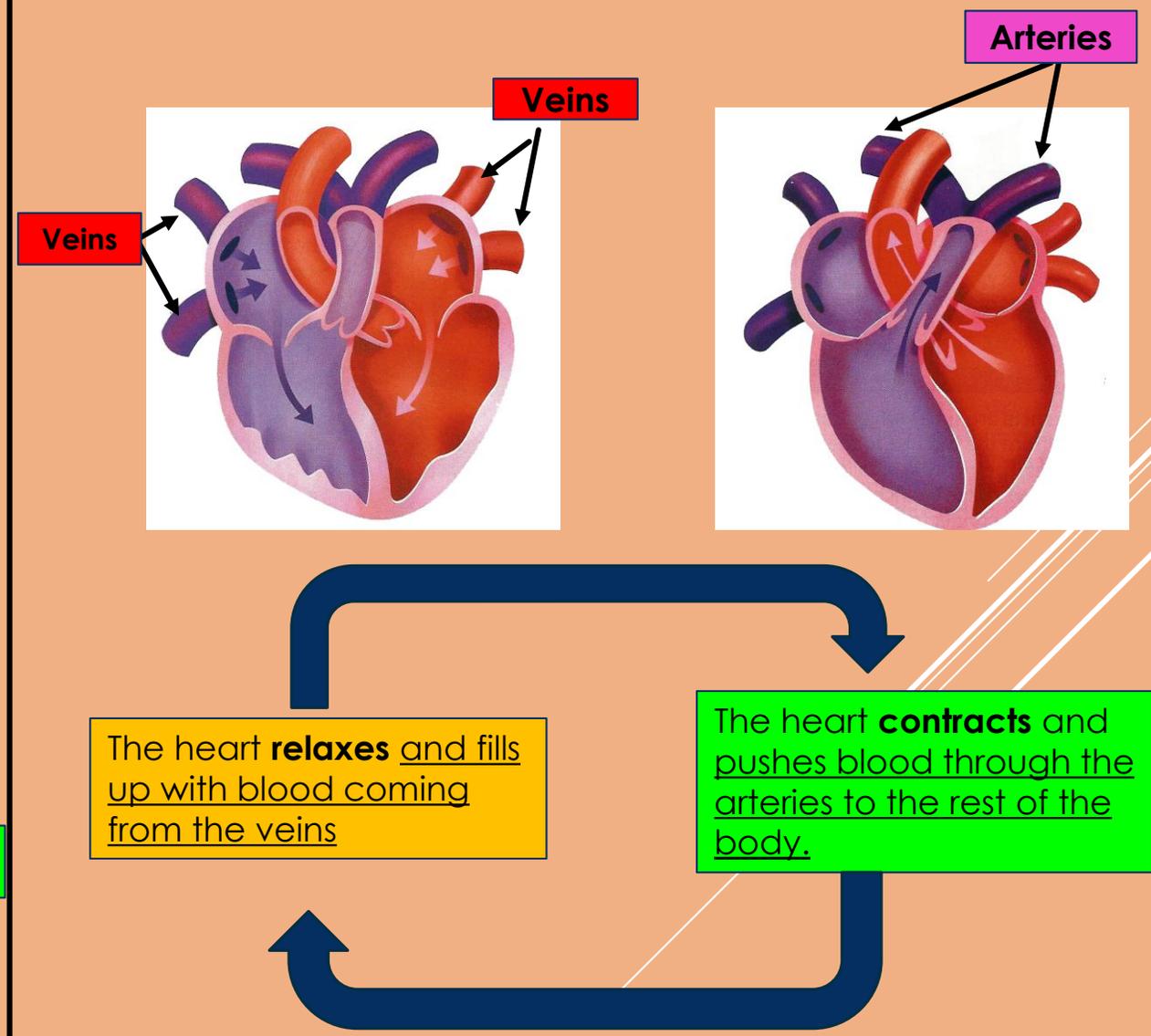
Heart

- **It pumps blood around the body** through the blood vessels.
- It is the fist and sits between the lungs.
- It continuously contract and relaxing automatically. This process is called **HEARTBEAT.**

Parts of the circulatory system (Main map)



The heartbeat



THE RESPIRATORY SYSTEM

It helps us delivery oxygen to all parts of the body.

It is made of:

Airway

Lungs

Air enters and exits the body through this. It contains:

- The nasal cavity.
- Pharynx.
- Larynx.
- Trachea.
- Bronchi.
- Bronchioles.

They are two spongy organs that are protected by the RIB CAGE.

"They are where respiration takes place"

4. The TRACHEA or WINDPIPE is a rigid tube which carries air to the bronchi.

5. The BRONCHI are tubes which carry air from the trachea to the lungs. They lead to smaller airways called **BRONCHIOLES** that are connected to air sacs or ALVEOLI.

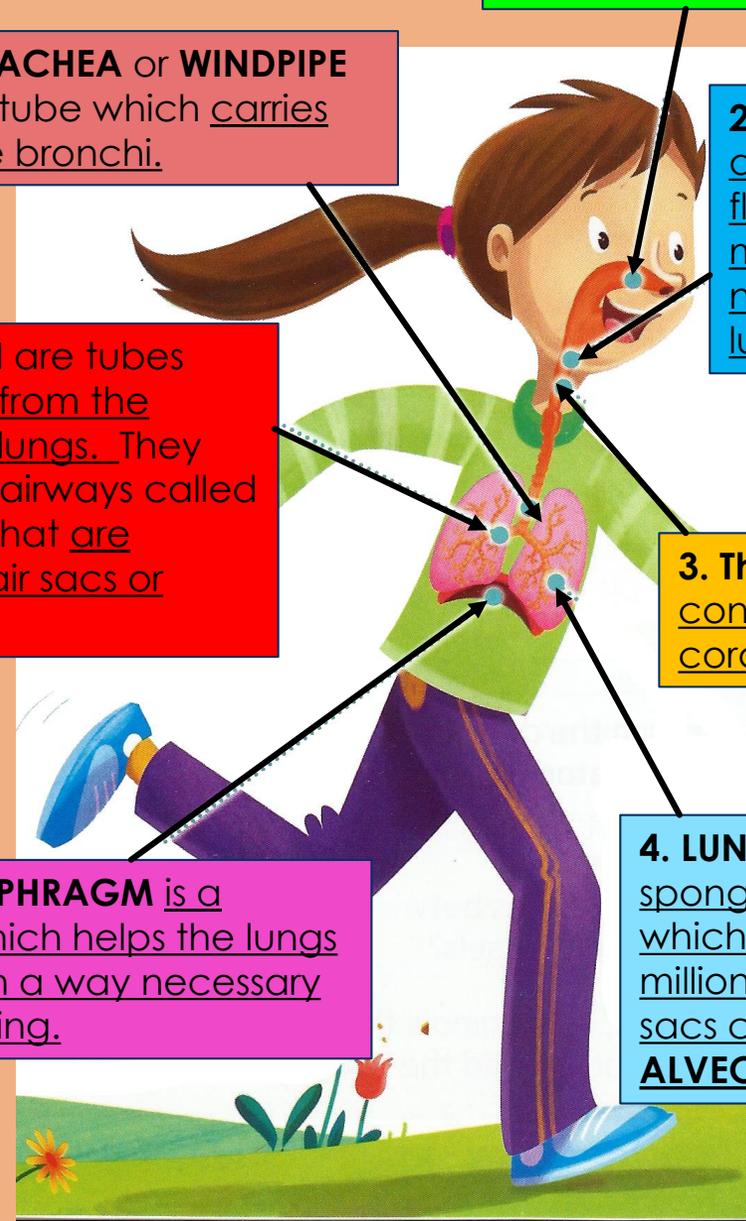
7. The DIAPHRAGM is a muscle which helps the lungs to move in a way necessary for breathing.

1. THE NASAL CAVITY heats, moistens and filters the air that comes into the body.

2. The PHARYNX allows the air to flow from the mouth and nose to the lungs.

3. The LARYNX contains the vocal cords.

4. LUNGS are spongy organs which contain millions of tiny air sacs called ALVEOLI.



THE PROCESS OF RESPIRATION

Through this process, we take in oxygen from the air outside and we transport it to different parts of our body.

There are three states of respiration

Inhalation

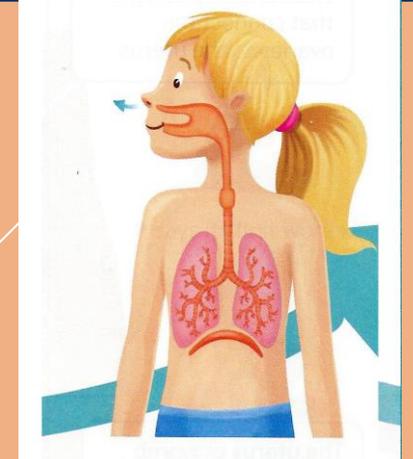
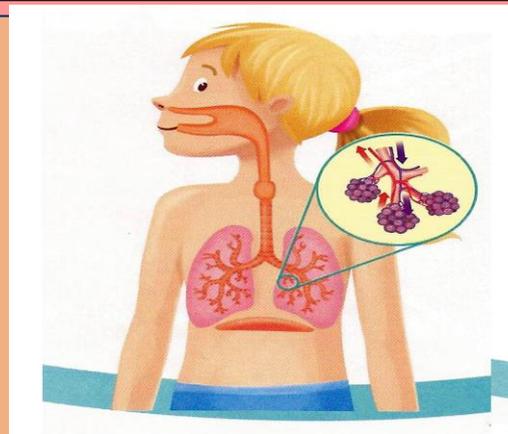
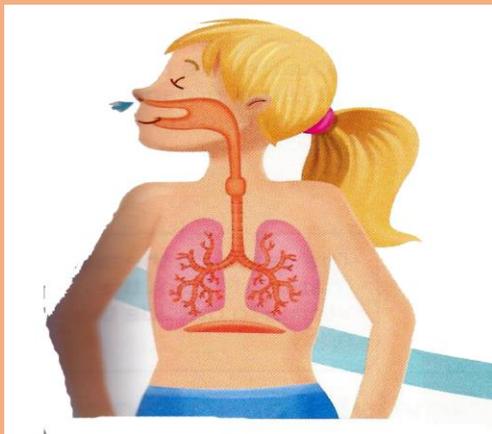
Gas exchange

Exhalation

The diaphragm contracts, allowing the lungs to get bigger and fill up with air from the mouth and nose.

Oxygen that we breathe passes through the alveoli and into the blood.
At the same time, carbon dioxide passes from the blood into the lungs.

The diaphragm relaxes, causing the lungs to get smaller and push carbon dioxide out of the body.



REPRODUCTION



Human beings are able to make other human beings thanks to the reproductive system. Men and women have different reproductive systems.

The female reproductive system

1. **FALLOPIAN TUBES** are two internal passages that connect the ovaries to the uterus.

5. **OVARIES** are two internal organs that produce **OVULES**.

4. The **VAGINA** is the tube that leads from the uterus to outside the body.

2. The **UTERUS** or **WOMB** is the space inside a woman where a baby develops until it is born.

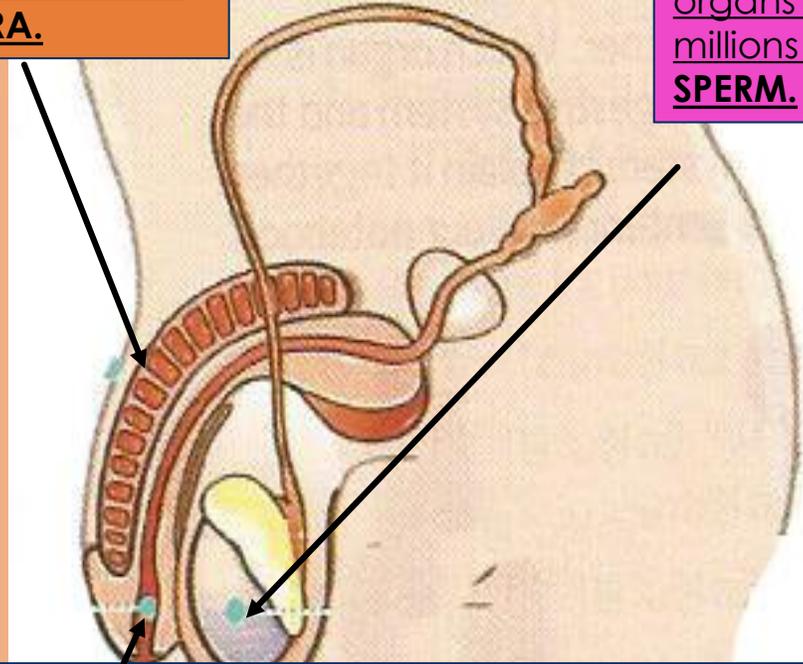
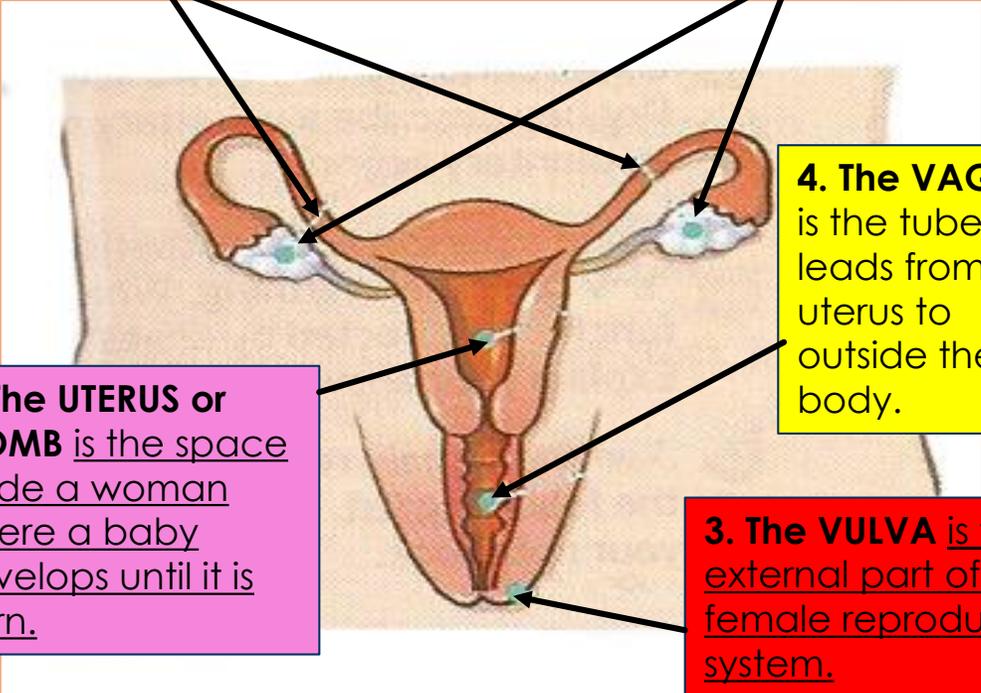
3. The **VULVA** is the external part of the female reproductive system.

The male reproductive system

1. The **PENIS** is an external organ that contains the **URETHRA**.

2. **TESTICLES** are two oval shaped external organs that produce millions of cells called **SPERM**.

3. The **URETHRA** carries urine from the bladder. It also carries **semen**, which is a mixture of fluids and sperm.



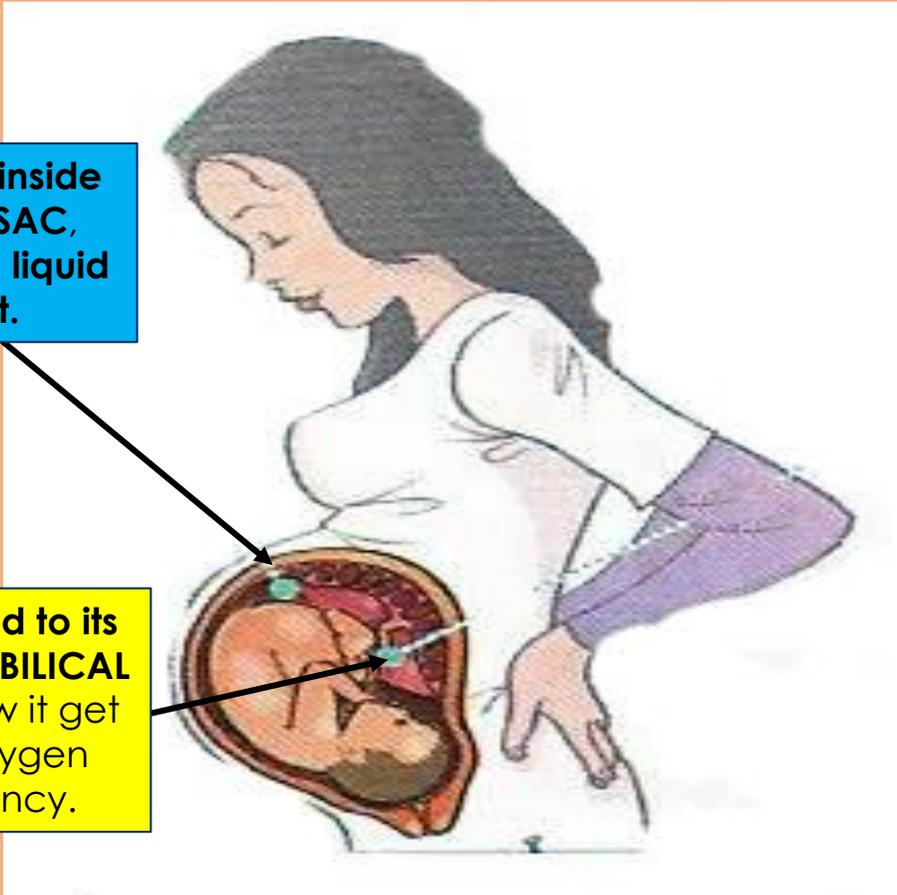
PREGNANCY AND DELIVERY



During **PREGNANCY** a baby forms and grows inside its mother. **FOR HUMAN**, this state of the reproduction process lasts **NINE MONTHS**.



The **BABY** begins life inside the **UTERUS** as a tiny being called **FOETUS**.



The **BABY** grows inside the **AMNIOTIC SAC**, which contains a liquid to protect it.

The **BABY** is joined to its mother by an **UMBILICAL CORD**. This is how it gets its food and oxygen during pregnancy.

A baby's development



1. He gets to know his parent's faces.



2. He says his first words.



3. He learns to crawl.



4. He takes his first steps.



5. He says his first words.

SICKNESS AND HEALTH



To keep your body healthy and avoid illnesses, you must follow some routines in your daily life.



Healthy habits

Healthy diet

- Eat a variety of nutritious food every day.
- Fruit and vegetables are especially important.

Hygiene

- Wash your hands before meals.
- Brush your teeth after meals.
- Have a shower regularly.

Physical exercise

- Do physical exercise to keep your body fit, strong and flexible.

Posture

- Sit upright in your chair.
- Carry your bag on your back using both shoulders.

Rest

- Sleep for around 9 or 10 hours a day.



Unhealthy habits

Unhealthy diet

- Obesity
- Nutritional deficiencies.
- Chronic diseases.

Poor hygiene

- It can cause salmonella, flu, diarrhoea and sickness or the common cold.
- These viruses and infections are passed between people who don't wash their hands.

Lack of exercise

- It can affect the development of motor skills and coordination.

Bad posture

- It produces fatigue.
- It can result muscular problems.

Sleep deprivation

- Irritability
- Lack of concentration
- Memory deficit