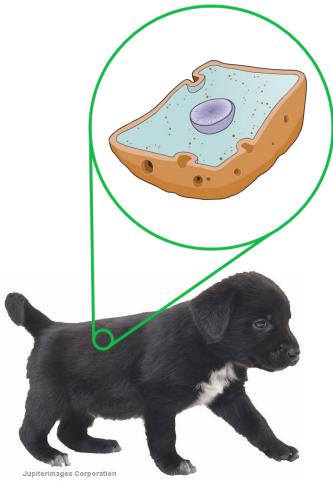


# From cell to organism



All living things are made up of cells. Each organism's appearance is determined by the types of cells it is made up of, and how these cells are organized.





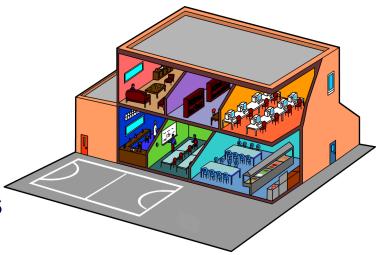


### How is the body like a school?



To understand how the body is organized, think about all the different people that work in a school to make it function.

- teachers and teaching assistants
- groundskeepers and janitors
- lunch ladies and bus drivers
- administrators and office workers



Everybody in the school needs to know where they should be and what they are doing for the school to function properly.

Everybody does a different job – they have different skills and equipment to help them do their job.





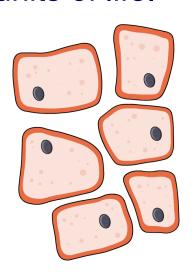
## **How is the body organized?**



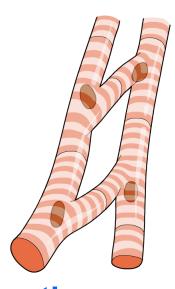
Living things are made up of organized systems too.

Each specific cell is grouped with other cells similar in structure and function to form tissues and ultimately organs:

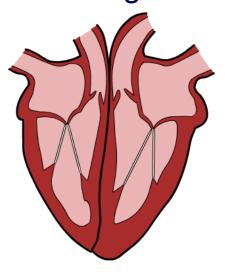
Cells are the basic units of life.



Groups of cells work together to form tissues.



Groups of tissues work together to form organs.









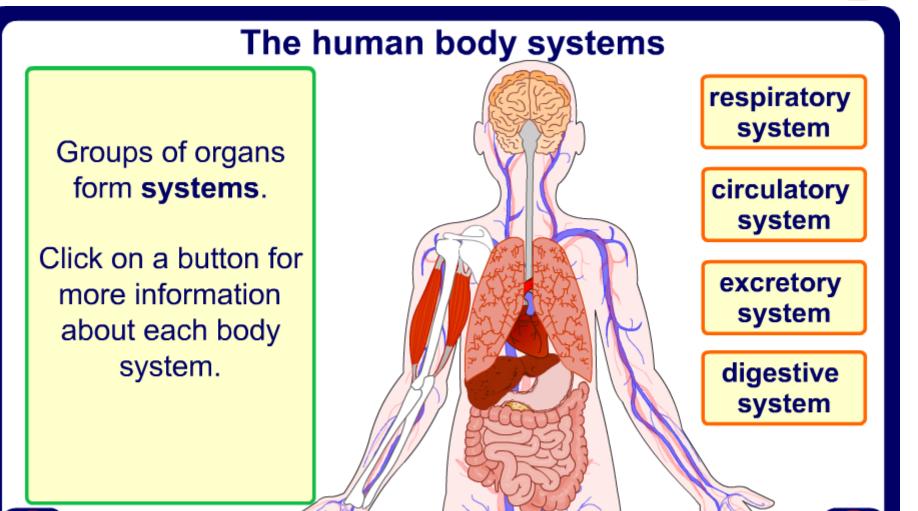




# What is a system?









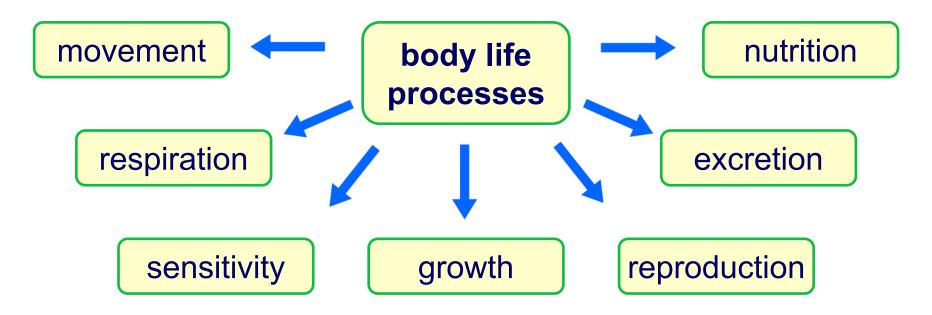


### Why be organized?



Why do organisms have to be so organized?

Organization of the body allows complex organisms to carry out many different jobs at the same time.



Being organized means that the body does not waste energy, so it is more efficient.





## Which body system?





#### Which organs are involved in each human body system?

respiratory system

digestive system

excretory system

reproductive system

circulatory system

sensory system

nervous system

stomach, intestines

ovaries, testes

heart, blood vessels

kidneys, liver

eyes, ears, nose

brain, nerves

windpipe (trachea), lungs







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