

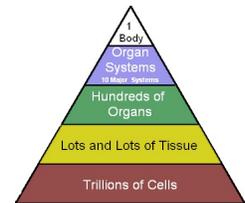


Name: _____

Getting 'ORGAN'-ized

Different cells in a body perform different tasks. They are **SPECIALIZED**. Cells in the heart perform different tasks than cells in the liver. If cells could not be **SPECIALIZED** then complex multi-celled organisms like human beings would not be possible.

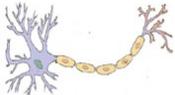
Cells of the same structure and function group together to form **TISSUE**. **TISSUE** that makes up the kidney is different from tissue that makes up the lungs. Groups of **TISSUES** come together to form **ORGANS** like the heart, liver, kidneys and lungs. Each of these **ORGANS**, as part of a larger **ORGAN SYSTEM**, has a specific job to do in an organism.



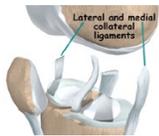
There are several different types of **TISSUE** that form the basis for all **ORGANS** in your body. 4 of them are:



Muscle Tissue: Stretches and contracts to assist in body movement; helps organs carry out specific functions, such as the heart pumping blood



Nerve Tissue: transfers signals in the body and its organs to tell the body how to respond to changes in its internal and external environments



Connective tissue: holds together and supports other tissues, such as skeletal connective tissue. Connective tissue connects, protects and insulates organs



Epithelial tissue: covers the surface of organs and the body. It also lines the inside of body parts, such as the mouth, esophagus, and the stomach

PART 1: AAAHH-CHOOO

Materials

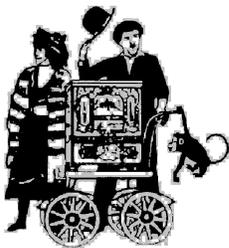
- Rubber band
- Piece of plastic wrap
- Electrical wire
- Transparent adhesive tape

Procedure

1. From the materials provided affix in the spaces below the material that best represents each of the 4 main types of tissue found in the body. Also explain why the material you have chosen is the best representation for that type of tissue.

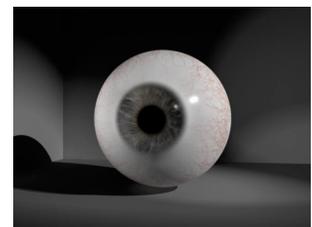
Muscle	Nerve	Epithelial	Connective
Sample	Sample	Sample	Sample
Reason	Reason	Reason	Reason

PART 2: Organ Finder



An **ORGAN** is a grouping of **TISSUES** into a distinct structure that performs a specialized task. There are hundreds of different **ORGANS** in the human body just as there are multiple **ORGANS** in any complex living thing, be they plant or animal.

An **EYEBALL** is one such organ. Included in the different **TISSUE** that this **ORGAN** uses to receive and transmit information are the **RETINA** and **OPTIC NERVE** which are composed of specialized nerve cells. As well, specialized epithelial tissue make up the eye's hard outer coating called the **SCLERA**.



I bet you can't wait to slice open any eyeball and look at these and many more structures that make up this organ.

ORGANS that are grouped together to perform a common task are called **ORGAN SYSTEMS**. There are 10 major **ORGAN SYSTEMS** in the human body.

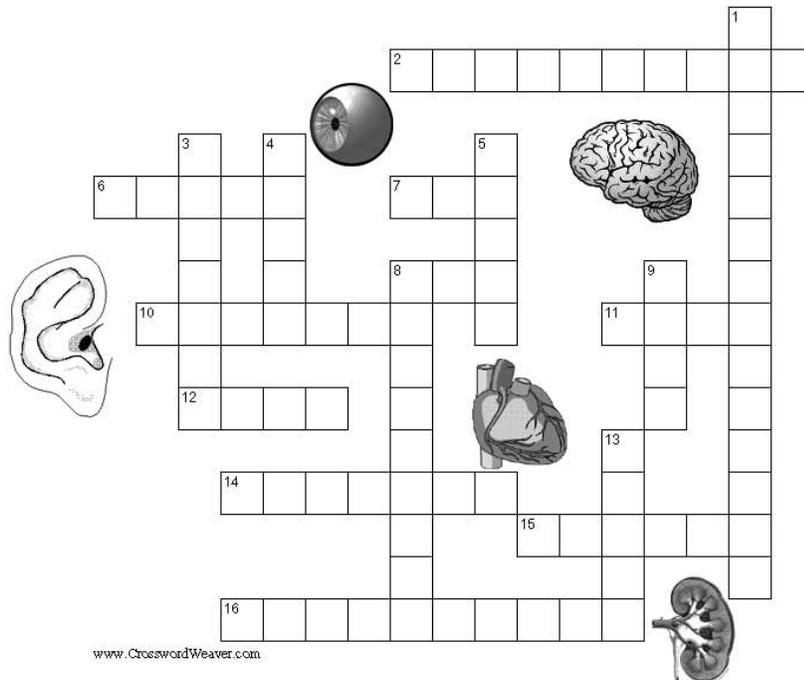
Can you name 2 **ORGAN SYSTEMS** in the human body?

On the following page, test your knowledge of **HUMAN ORGANS** by completing the crossword puzzle.



Organ 'F'-inder

Organs of the Human Body



www.CrosswordWeaver.com

ACROSS

- 2 Tube-like structure that extends from the brain through the vertebrae to the body; transports signals from the brain to the body
- 6 Produces bile which is important for digestion; also involved in detoxification; largest 'GLAND' in body
- 7 Organ of vision that detects light
- 8 Organ that detects sound
- 10 Bean-shaped organ that filters waste from the blood (Urea) and excretes it
- 11 Organ of the female reproductive system where fertilized eggs gestate.
- 12 Largest organ in the human body; covers and protects body
- 14 Part of digestive system containing acids that break down food
- 15 Large muscle in mouth that detects taste and manipulates food for chewing and swallowing
- 16 Extending out of the bottom of the stomach, long tube-like structure that carries waste out of body

DOWN

- 1 Collects urine
- 3 Egg producing organs in female reproductive system
- 4 Regulates almost every human activity; controls thought, reason and abstraction
- 5 Muscular organ responsible for pumping blood
- 8 Muscular organ of the Digestive system through which food passes from the mouth to the stomach
- 9 Organ that detects smells
- 13 Important respiratory organ that transports oxygen to the blood system and excrete carbon dioxide from the body

WORD BANK: Brain, ear, esophagus, eye, heart, intestines, kidneys, liver, lungs, nose, ovaries, skin, spinalcord, stomach, tongue, urinarybladder, womb.