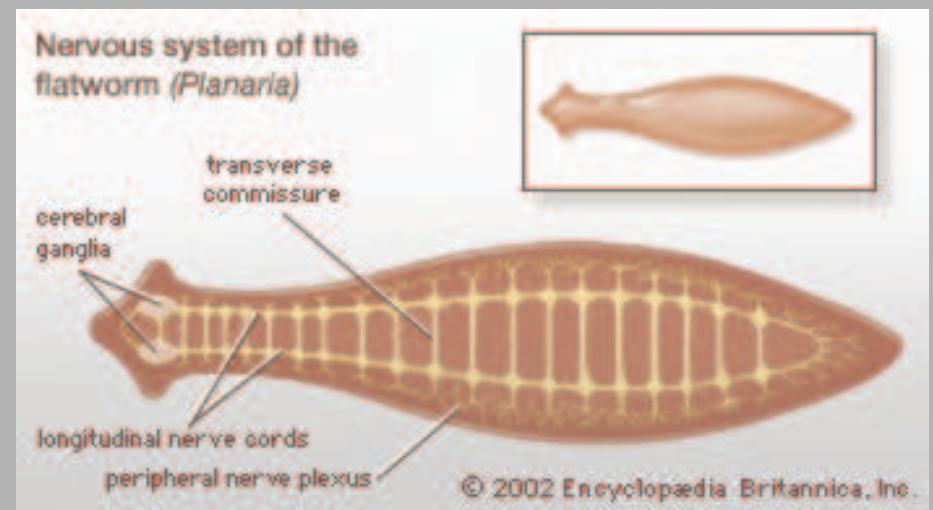
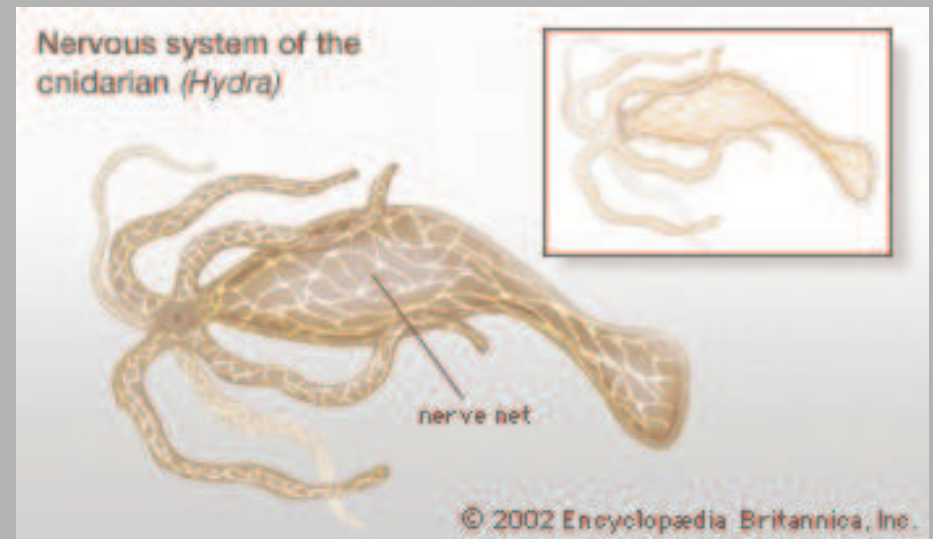
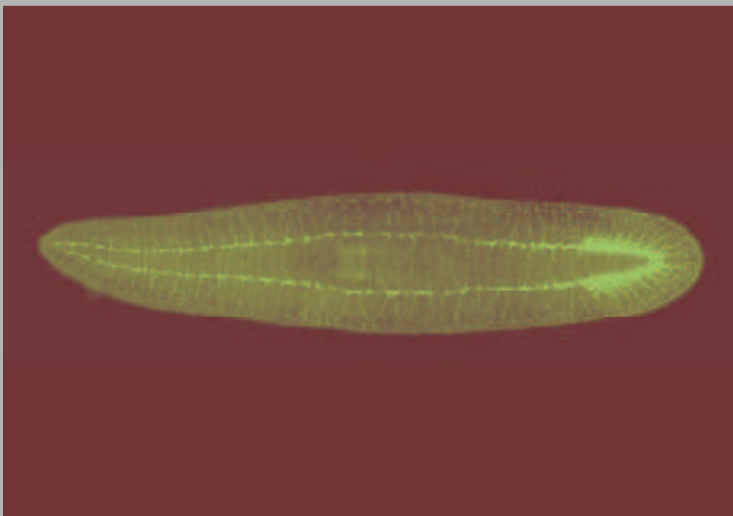


# Nervous System



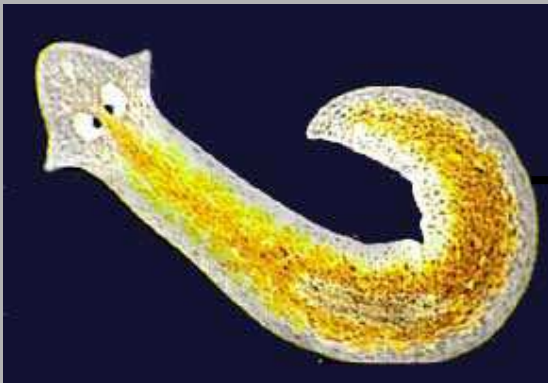
# Cephalization

- Cephalo- = head
- In very simple animals, nervous systems are very spread out and disorganized
- As animals become more complex, nervous tissue becomes more concentrated in the head

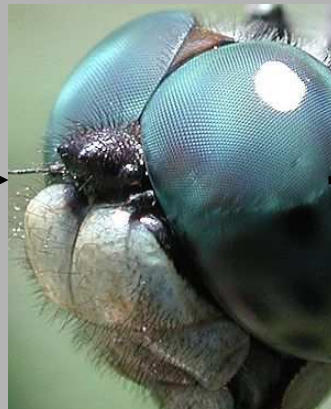


# Specialization

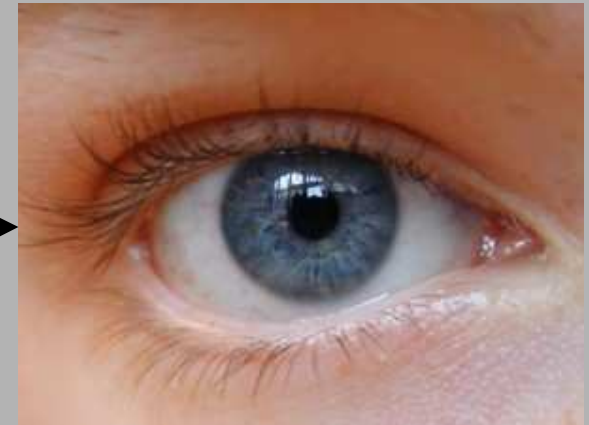
- As nervous systems get more complex, the more developed their sense organs tend to be



Eyespot: only detects light



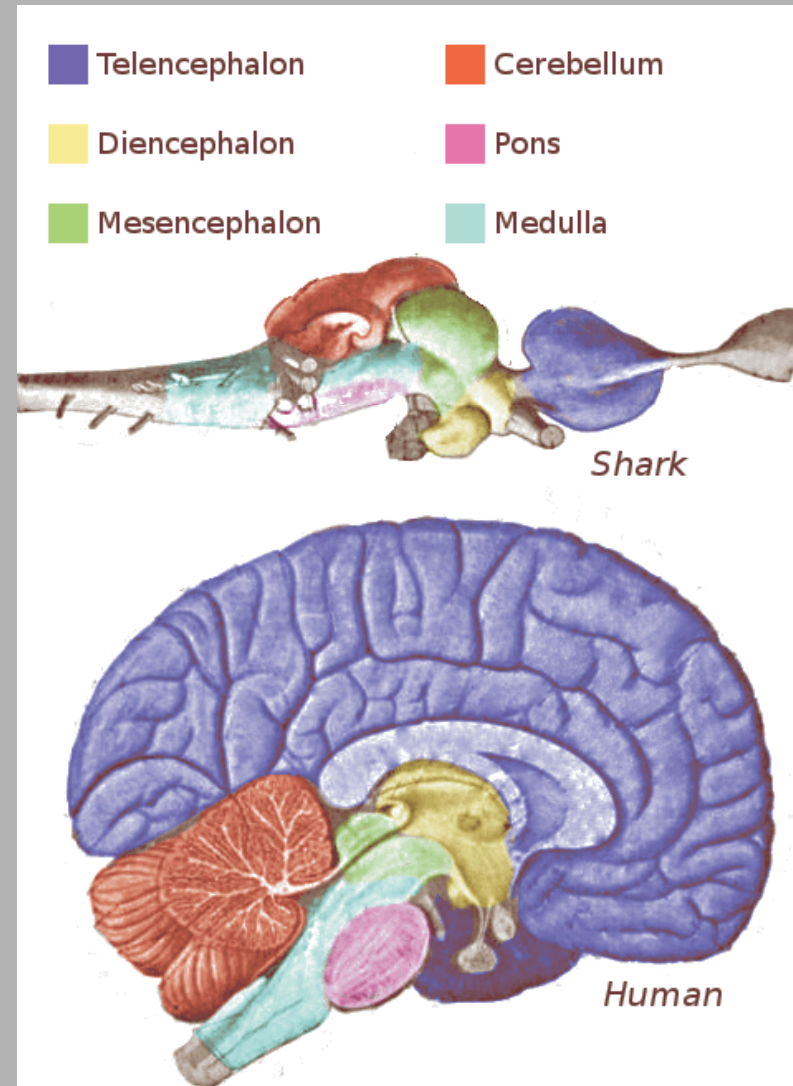
Simple eye: detects motion/color



Complex eye: detects motion, color, full images, etc.

# More advanced...

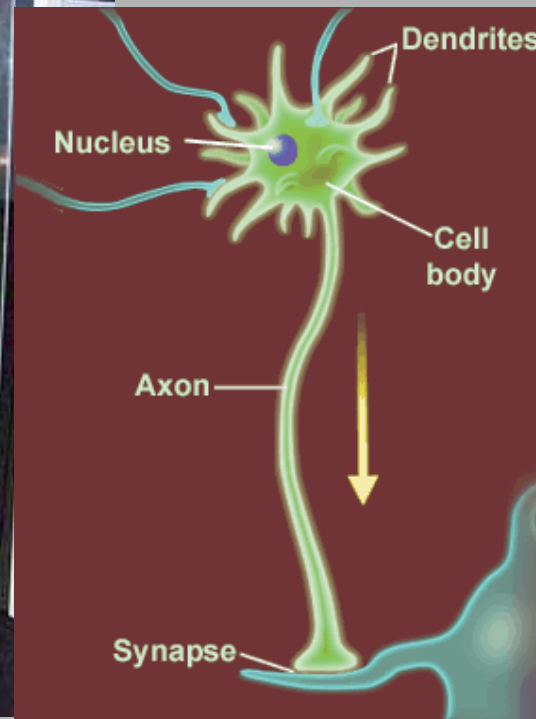
- In more complex animals, the brain is larger and divided into specialized regions
- Also, the part of the brain that controls thinking, learning, and memory grows larger



# Human Nervous System



- Controls and coordinates body functions
- Uses neurons to transmit electrical information from place to place



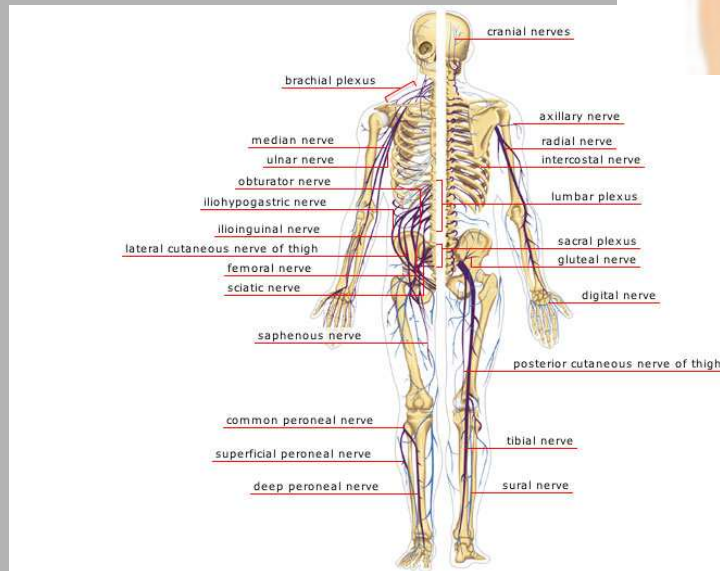
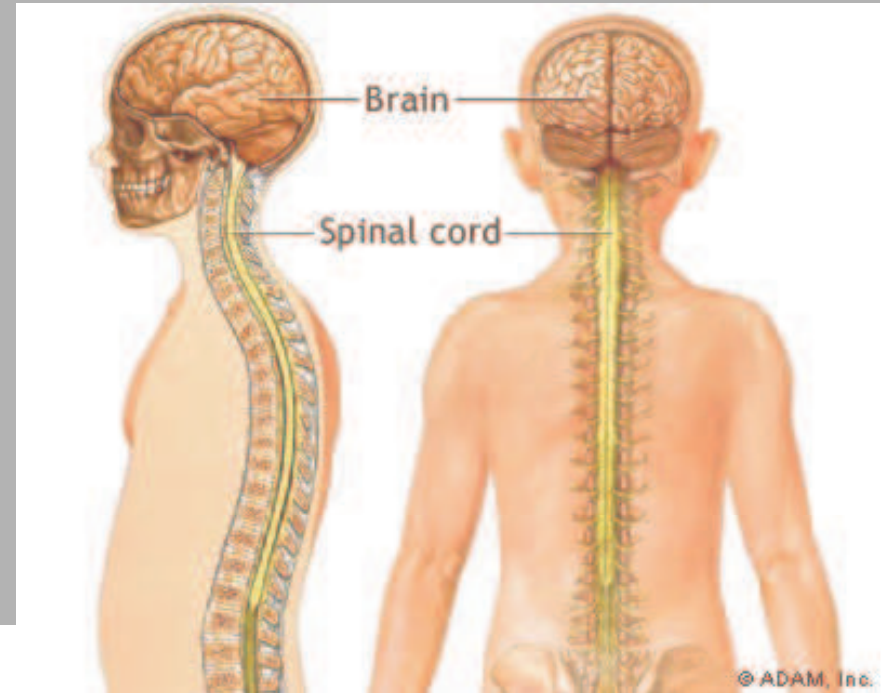
Dendrites=take in info

Axon=sends out info

Synapse=uses chemicals to pass on signal

# Human Nervous System, cont.

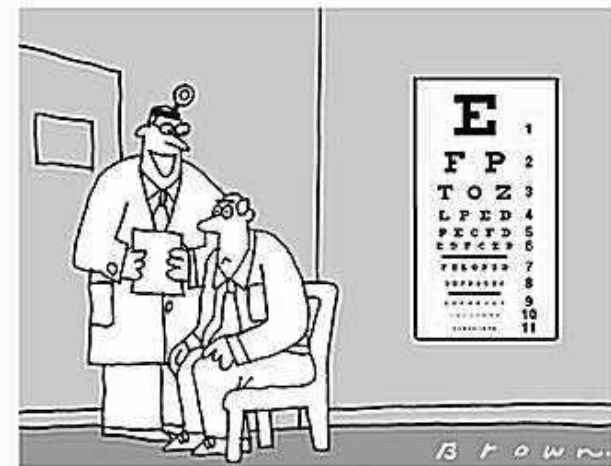
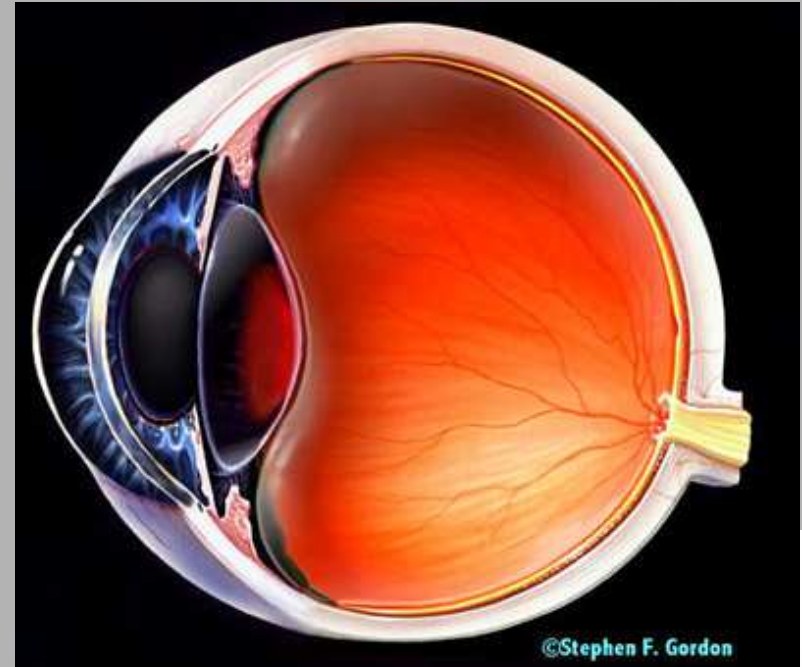
- Divided into 2 main parts:
  1. Central Nervous System - brain and spinal cord
  2. Peripheral Nervous System - all other nerves



# The Senses

## 1. Vision

- The eye uses a lens to focus light on to our retina
- The retina contains 2 types of cells:
  1. Rods=used in low light, don't see color
  2. Cones=less sensitive, but see colors
- Rods and cones interpret the light and send signals through the optic nerve to the brain

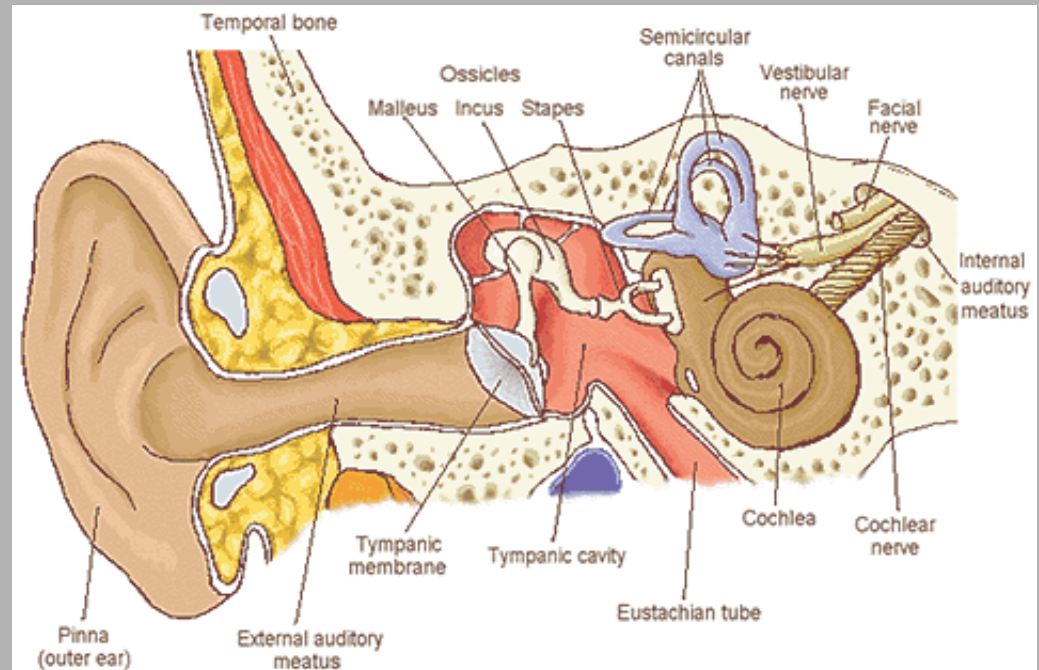


"According to this test, your hindsight is 20-20."

# The Senses

## 2. Hearing and balance

- In the ear, sound waves hit our eardrum, which transfers the vibrations to tiny bones
- Also, we have semicircular canals filled with fluid that help us maintain our balance

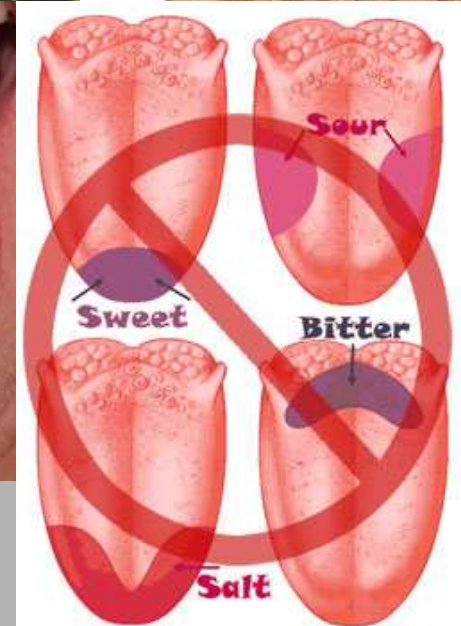
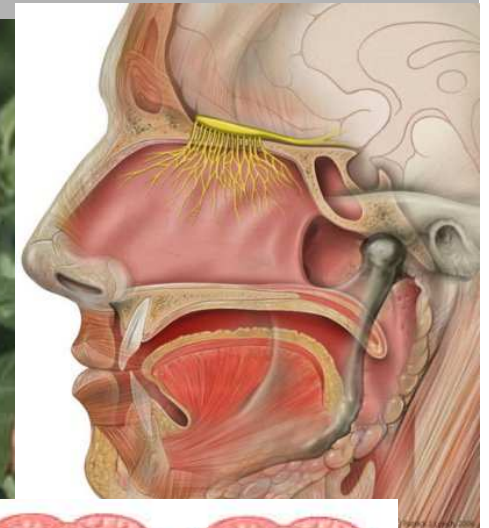


# The Senses

3. Smell, and

4. Taste

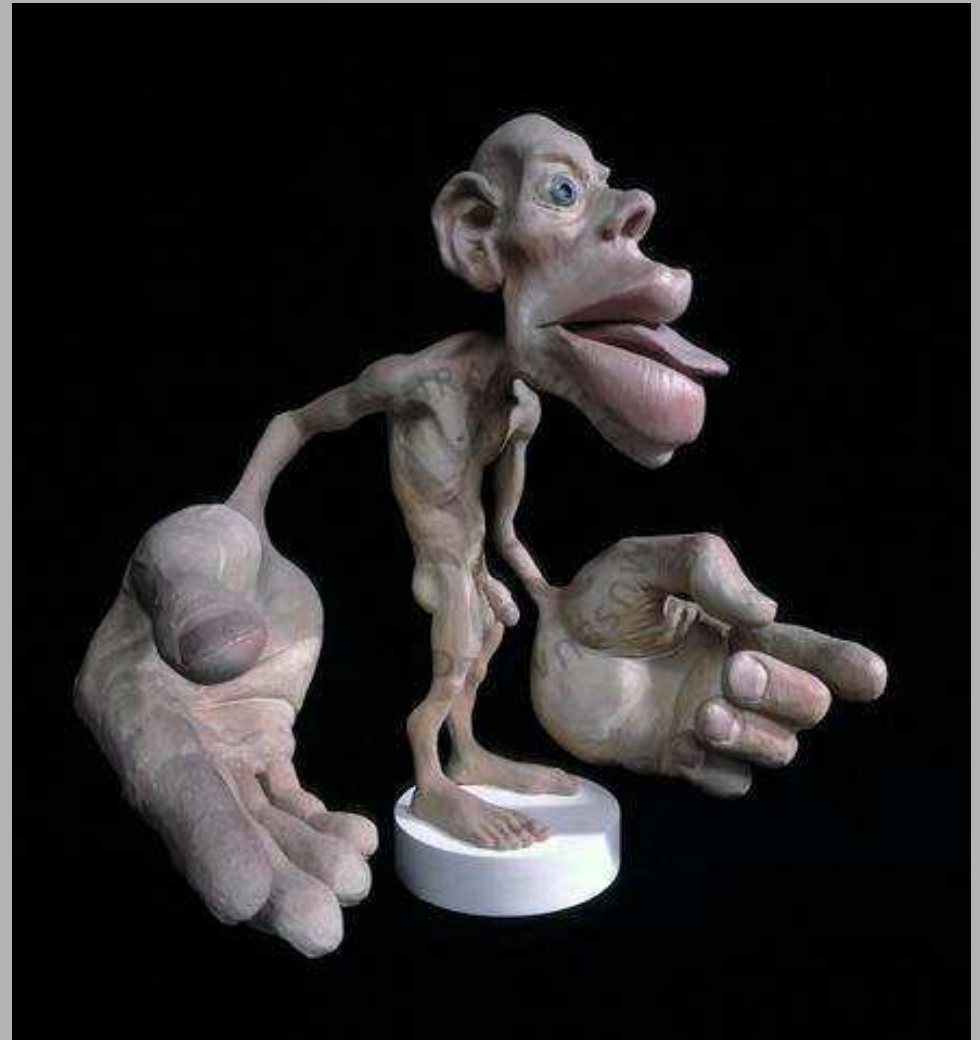
- Your nose and your tongue both work by detecting chemicals and then sending nerve impulses to the brain



# The Senses

## 5. Touch

- Your skin contains sensory receptors that respond to temperature, touch, and pain
- Different parts of your body have different amounts of receptors



# Assignment

- Draw and label all the parts of a neuron.

Look in a book, work on it now in class, due by Thursday.

