PsychSim 5: BRAIN AND BEHAVIOR

Name: __________________________________________ Section: ________________________  
Date: __________________________________________

In this activity you will take a tour of the human brain and explore the major brain regions to discover the functions of each region or area.

Functional Specialization
- In terms of brain function, what is functional specialization?
- Why is the principle of complex communication important to understand?

Test Yourself on Lower Brain Structures
- Match each brain part with its function:

  o ___ Pituitary gland  A. Located above the midbrain at the top of the brainstem; routes incoming messages from all the senses (except smell) to the appropriate brain areas for processing
  o ___ Medulla  B. Part of the limbic system; regulates hunger, thirst, and body temperature and contains the so-called pleasure centers of the brain
  o ___ Pons  C. The master gland of the endocrine system
  o ___ Reticular formation  D. Located in the brainstem; controls breathing and heartbeat
  o ___ Cerebellum  E. A nerve network that runs up the center of the brainstem; plays an important role in controlling alertness and attention
  o ___ Midbrain  F. Located at the back of the brainstem; assists in balance and the coordination of voluntary movement
  o ___ Thalamus  G. Part of the limbic system; is involved in learning and in forming new memories
  o ___ Hippocampus  H. Part of the limbic system; is involved in regulation of the emotions of fear and rage
  o ___ Amygdala  I. Located near the top of the brainstem; integrates specific types of information from the eyes and the ears, and sends this on to other parts of the brain
  o ___ Hypothalamus  J. Located in the brainstem; controls breathing and heartbeat; connects the medulla to the two sides of the cerebellum to help coordinate and integrate movement on each side of the body; involved in sleep and dreaming
The Cerebral Cortex

- Each hemisphere of the cerebral cortex is divided into four regions called “lobes.” Name them.

Match each lobe to its associated cortex:

- ___ __________________ A. Somatosensory cortex
- ___ __________________ B. Motor cortex
- ___ __________________ C. Visual cortex
- ___ __________________ D. Auditory cortex

The Cerebral Cortex

- Name the three distinct areas of language cortex in the left hemisphere. Match them to their related dysfunction.

- ___ __________________ A. Ability to read aloud
- ___ __________________ B. Speaking
- ___ __________________ C. Language comprehension

Right Hemisphere Abilities

- If the left hemisphere generally controls language, what special abilities does the right hemisphere have?