

## 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:

- o \_\_\_\_ A. Somatosensory cortex
- o \_\_\_\_ B. Motor cortex
- o \_\_\_\_ C. Visual cortex
- o \_\_\_\_ D. Auditory cortex

**The Cerebral Cortex**

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

- o \_\_\_\_ A. Ability to read aloud
- o \_\_\_\_ B. Speaking
- o \_\_\_\_ C. Language comprehension

**Right Hemisphere Abilities**

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