## What is a Neuron? Pre-Assessment Answer Key

## **Directions**

Answer the following questions. This assignment will not be graded.

- What part of our brain is responsible for emotional memory? Amygdala
- 2. What is the size of our amygdala, and what is its shape? It is the size and shape of an almond.
- 3. Which of these is an instinctual fear rather than a learned one?
  - a. clowns
  - b. fire
  - c. snakes
  - d. dolls
- 4. Briefly describe why the rat during the experiment we analyzed froze when hearing an auditory response after conditioning.

The rat froze because it was "frozen in fear" due to the fact that it was prepared to get shocked because it had learned to fear what it was hearing.

- 5. How does the amygdala respond to a normal tone versus a scary one? The baseline firing of the amygdala is very low because it is heavily inhibited, perhaps about 0.2 Hz or once in 5 seconds. In scary situations, it may fire more than 5 Hz or 5 times per second, to signal fear.
- Where is the amygdala located in our brain? Medial temporal lobe.



