**Questions to answer:**

1. Why are neurons necessary for animal systems, and why are they only found in animal systems?
2. Explain why each of the following aspects of neuron structure is important to neuron function:
   1. many inputs, one output
   2. unidirectional flow of nervous signals
   3. polarized membrane
   4. “all or nothing” binary nervous signaling system
   5. myelin sheath
3. Diagram each phase of an action potential, and explain what is happening at the neuronal membrane during each phase (specifically explain which channels in the membrane are open/closed during each phase, and the direction of ion movement accross the membrane).
4. How is a nervous signal transmitted from one neuron to the next?
5. Why is the synapse a particularly good target for drugs and toxins?
6. Describe the function of acetylcholinesterase, and the effect to the body if that function is inhibited.
7. Research the drug prozac and explain its mode of action on neurons in the brain.

**Things you should make sure you understand:**

**(feel free to ask questions about them in class)**

* How the nervous system works with the other systems of the body (should be able to link to all other systems of the body).
* How sensory neurons, interneurons, and motor neurons all work together.
* How the electrical signals of the body differ from the signals found in copper wires.
* How signaling pre-synaptic neurons can be either inhibitory or excitatory on post-synaptic neurons.