**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**BioFlix™ Study Sheet for How Synapses Work**

**Part I. Draw a Synapse. In your drawing, be sure to show the sending neuron, synaptic terminal, receiving neuron, synaptic cleft, calcium channels, vesicles, neurotransmitter molecules, and receptors for neurotransmitter. Then describe the role of each structure in the table below.**

|  |  |
| --- | --- |
| **Synapse Structure** | **Role in How Synapses Work** |
| **Sending neuron** |  |
| **Synaptic terminal** |  |
| **Receiving neuron** |  |
| **Synaptic cleft** |  |
| **Calcium channel** |  |
| **Vesicle** |  |
| **Neurotransmitter** |  |
| **Receptors for**  **neurotransmitter** |  |

**Part II. How does information from many different synapses determine whether a**

**receiving neuron generates an action potential?**

**What happens if the neurotransmitters signal is inhibitory? How is it different than an excitatory signal?**