

## **IB Curriculum Guide – Nervous System**

IB Biology B

### **Essential Idea:**

- Neurons transmit the message, synapses modulate the message.

### **Understandings:**

- Neurons transmit electrical impulses.
- Neurons pump sodium and potassium ions across their membranes to generate a resting potential.
- An action potential consists of depolarization and repolarization of the neuron.
- Nerve impulses are action potentials propagated along the axons of neurons.
- Propagation of nerve impulses is the result of local currents that cause each successive part of the axon to reach the threshold potential.
- Synapses are junctions between neurons and between neurons and receptor of effector cells.
- A nerve impulse is only initiated if the threshold potential is reached.

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