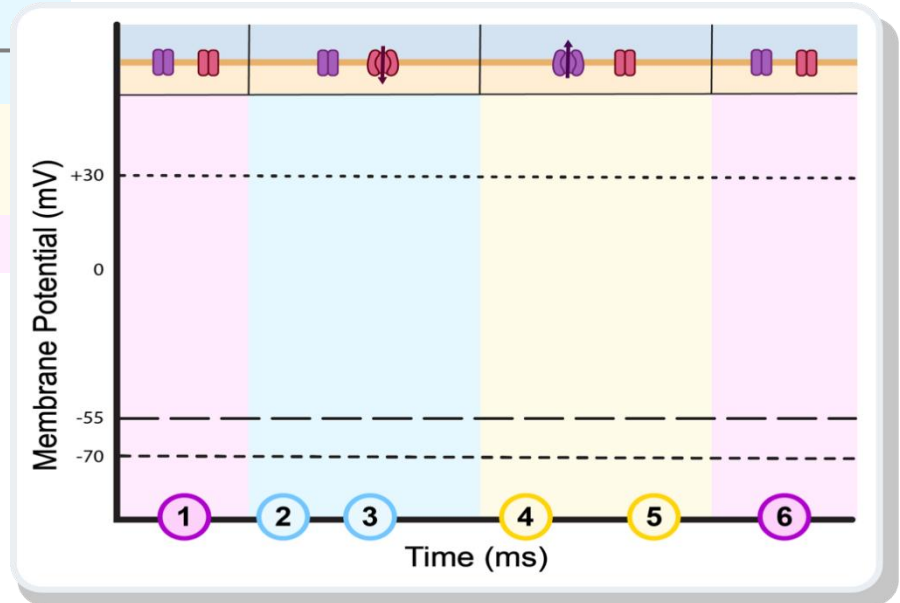
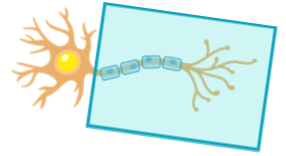


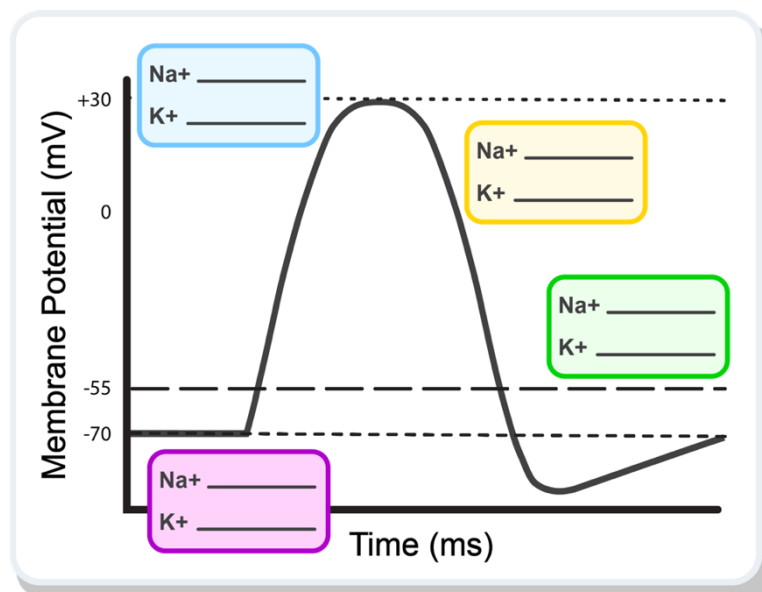
TOPIC: ACTION POTENTIALS

● Sequence of an Action Potential:

- **Step 1:** Neuron at _____.
- **Step 2:** Depolarization.
- **Step 3:** Neuron reaches _____.
- **Step 4:** Repolarization.
- **Step 5:** Hyperpolarization.
- **Step 6:** Return to resting potential.



EXAMPLE: Below is a graph depicting change in membrane potential during an action potential. Within this graph, write the state of voltage-gated Na⁺ and K⁺ channels during each main phase of the action potential.



TOPIC: ACTION POTENTIALS

PRACTICE: Casey is taking a new medication that blocks potassium channels. What stage of an action potential would be MOST affected by this drug?

- a) The depolarization phase.
- b) Reaching threshold.
- c) The repolarization phase.

PRACTICE: When an action potential is at its peak, the electrical gradient forces potassium _____.

- a) Out of the cell.
- b) Into the cell.

PRACTICE: What happens when the neuron reaches threshold (-55 mV)?

- a) Voltage-gated potassium channels open and potassium rushes into cell.
- b) Voltage-gated sodium channels open and sodium rushes into the cell.
- c) Voltage-gated potassium channels open and sodium channels close.
- d) The sodium potassium pump immediately establishes resting potential.