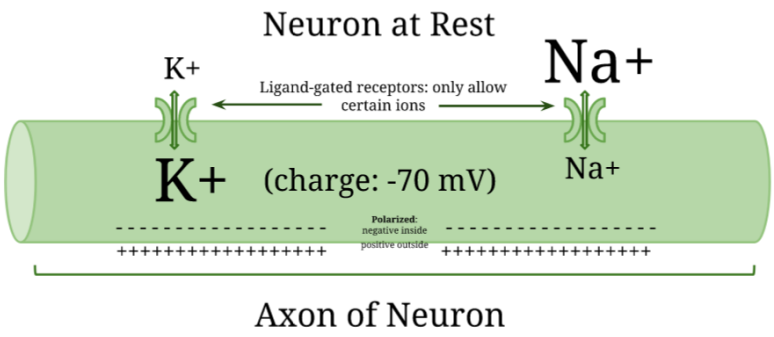
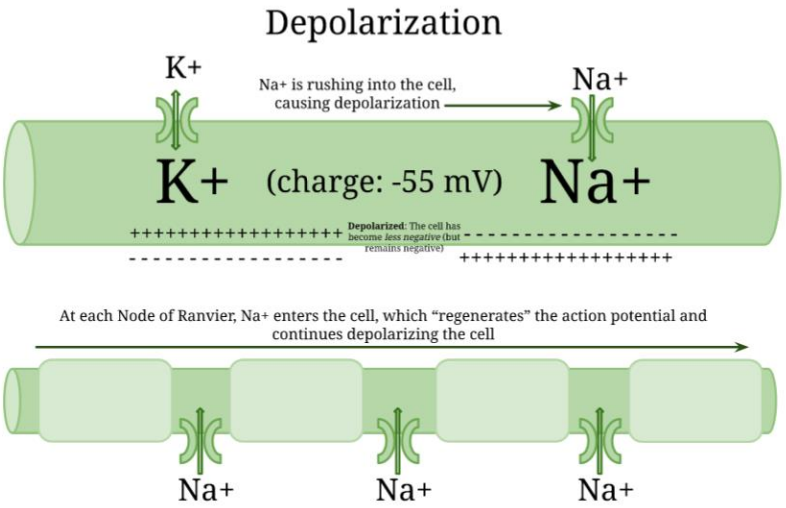
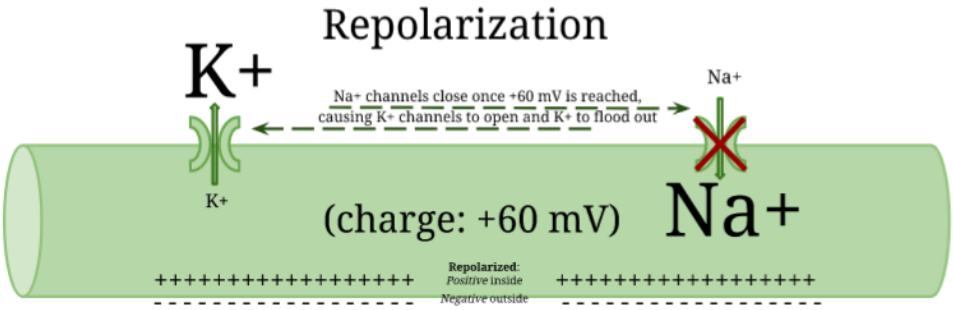

Neuron at Rest
K+
Na+
Ligand-gated receptors: only allow certain ions
K+
(charge: -70 mV)
Na+
Polarized: negative inside positive outside
Axon of Neuron


Depolarization
K+
Na+ is rushing into the cell, causing depolarization
Na+
K+
(charge: -55 mV)
Na+
Depolarized: The cell has become less negative (but remains negative)
At each Node of Ranvier, Na+ enters the cell, which "regenerates" the action potential and continues depolarizing the cell
Na+
Na+
Na+


Repolarization
K+
Na+
Na+ channels close once +60 mV is reached, causing K+ channels to open and K+ to flood out
K+
(charge: +60 mV)
Na+
Repolarized: Positive inside Negative outside