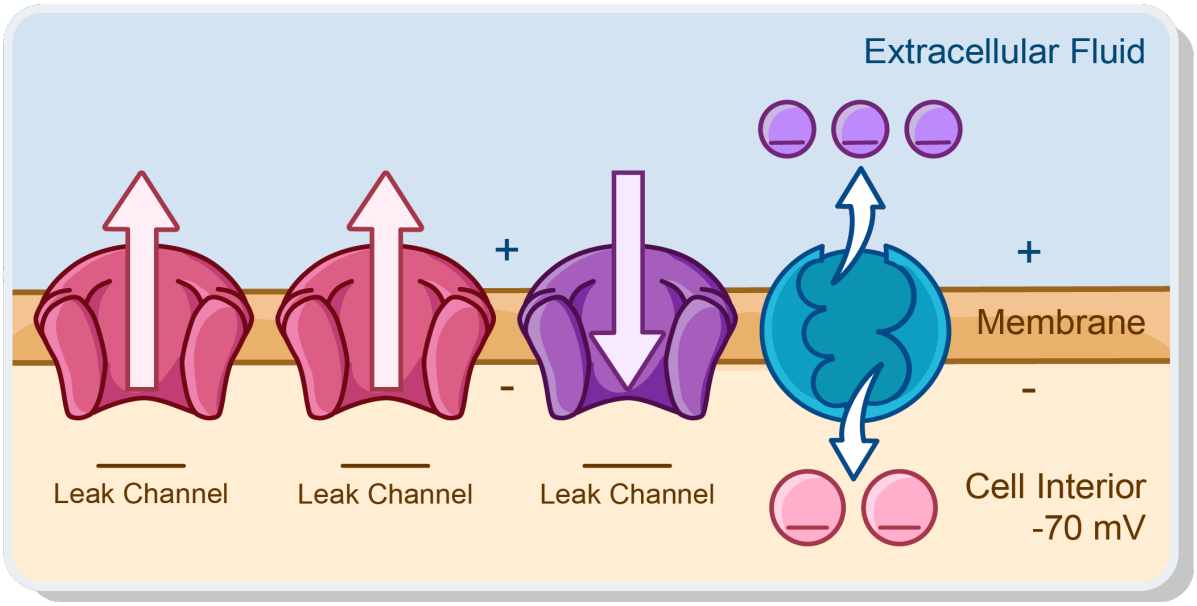
TOPIC: RESTING MEMBRANE POTENTIAL

- *Recall*: Membrane Potential: Voltage from charge separation between interior and exterior of a cell.
- **Resting Potential**: Membrane potential of a cell when not stimulated. Approx. _____ mV.
  - At resting potential, _____ of the cell is more negative than exterior of the cell.
    - Created by:
      - Differences in ionic composition of intracellular and extracellular fluids.
      - Differences in plasma membrane _____ to ions.
      - Stabilized by Na+/K+ATPase – _____ concentration gradients for Na+ and K+.



EXAMPLE: Which of the following is the MOST accurate regarding the sodium potassium pump?

a) The sodium potassium pump creates resting potential by ejecting 3 K+ ions and transporting 2 Na+ ions into the cell.

b) The sodium potassium pump is the main factor in creating resting potential.

c) The sodium potassium pump directly impacts resting potential by allowing more negatively charged ions into the cell.

d) The sodium potassium pump stabilizes resting potential in a neuron.

PRACTICE: Which of the following is the MOST important factor in generating resting membrane potential?

a) Na+ concentration gradient.

b) K+ concentration gradient.

c) K+ electrical gradient.

d) Na+/K+ ATPase.