**7.2 B: Nervous Tissue – Structure and Function**

**Nerve Impulses**

**Polarized 🡪 Depolarized 🡪 Action Potential 🡪 Repolarized**

1. Neuron is **polarized** (internal environment more negative due to location of ions) causing it to be inactive  
2. Stimulus is received – neuron stimulated  
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_channels open  
4. Sodium ions diffuse inward, **depolarizing** the membrane (internal environment more positive due to location of ions)

5. This difference in charge in and outside the cell creates an **action potential (a nerve impulse)** and neuron can communicate with other cells via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ channels open  
7. Potassium ions diffuse outward, repolarizing the membrane and neuron is at rest and ready to receive a new chemical signal

**The Reflex Arc**



