The Nervous System:

Reflexes & Neural Circuits

**Reflexes**

- **Reflex:** An automatic, involuntary response to an outside stimulus.

**Reflex arc:**
- Sensory receptor
- Sensory (afferent) neuron
- Interneuron (usually)
- Motor (efferent) neuron
- Effector organ (muscle)

**Examples:**
- Patellar reflex
- Pupillary reflex
- Plantar reflex
- Sneeze reflex
- Withdraw reflex
- Gag reflex
- Salivation

**Converging circuit:** Multiple presynaptic neurons stimulate a single postsynaptic neuron.
Neural Circuits

- **Diverging circuit:** One presynaptic neuron stimulates multiple postsynaptic neurons.