Left Hemisphere: right hand, writing, language, science skills, math, lists, logic, linear thinking mode
Right Hemisphere: emotions, spatial awareness, music, creativity, imagination, dimension, gestalt (whole picture), holistic
Commissure: A set of axons that connects the hemispheres: corpus callosum, anterior commissure, hippocampal commissure.
Lateralization: Division of labor between the 2 hemispheres.
Visual Field: What is visible at any moment
Left & right visual fields: each processed in contralateral hemisphere
Optic Chiasm: Where crossover of info occurs. The axons that cross the opposite hemisphere are those from the nasal (inside) half of each retina.
Auditory connections: Each hemisphere gets info, but contralateral hemisphere pays more attention
Epilepsy: condition involving excessive, synchronized neural activity
Seizure: Behavioral symptom; mild to severe
Focus: Point in brain where seizure begins
Commissurotomy: Severing of the corpus callosum
Split-brain patient: Has undergone a Commissurotomy
Planum temporale: critical for speech comprehension. Larger in left temporal lobe of 65% of people. Maturation of the corpus collosum occurs gradually over time. Young children have difficulty coordinating limbs.

Plasticity After Brain Damage:
Brain damage: tumors, infections, toxic substances, degenerative diseases, closed head injuries, stroke
Stroke: temp loss of blood flow in brain, common cause of brain damage in the elderly.
Types of strokes: Ischemia (most common), Hemorrhage (less frequent). They can both cause **Edema**: The accumulation of fluid in the brain. This increases pressure in the brain, the probability of further strokes, and kills neurons.
Tissue plasminogen activator (tPA): Breaks up blood clots & reduces effects of ischemic strokes.
Cooling brain: less activity, lower energy needs, less risk of overstimulation.
Cannabinoids: minimize cells loss after brain damage by decreasing the release of glutamate. Excessive glutamate can cause over-excitation of neurons.
Diaschisis: Decreased activity of surviving neurons after damage to other neurons. Damaged axons grow back under certain circumstances. PNS axon grows back at a rate of 1 mm per day. Impaired performance of neurons because neurons that used to provide them with input have been damaged.
Collateral sprouts: New branches formed by other non-damaged axons that attach to vacant receptors
Denervation super-sensitivity: Heightened sensitivity to a neurotransmitter after the destruction of an incoming axon and usually result of increased receptors. Takes place in the dendrites.
Phantom limb: continuation of sensation of an amputated body part & reflects this process. The cortex reorganizes itself after the amputation of a body part by becoming responsive to other parts of the body. Can lead to the feeling of sensations in the