

Understanding synesthesia: A neuroscience lesson on joined senses

Vocabulary list

- **Synesthesia** (noun): A condition where one sense is perceived simultaneously with another. (Adjective: synesthetic; Person: synesthete).
 - *Example*: Her **synesthesia** makes every Tuesday feel like the color lemon yellow.
- **Neuroscience** (noun): The scientific study of the nervous system. (Noun: neuroscientist; Adjective: neuroscientific).
 - *Example*: He decided to study **neuroscience** to understand how memories are formed.
- **Stimulation** (noun): The raising of levels of physiological or nervous activity in the body. (Verb: stimulate; Adjective: stimulating).
 - *Example*: The bright lights provided too much visual **stimulation** for the infant.
- **Unrelated** (adjective): Not connected or associated. (Noun: unrelatedness; Adverb: unrelatedly).
 - *Example*: The two symptoms seemed **unrelated**, but they both stemmed from the same condition.
- **Association** (noun): A mental connection between ideas or things. (Verb: associate; Adjective: associative).
 - *Example*: Many people have a strong **association** between the smell of pine and Christmas.
- **Pruning** (noun/verb): The process of eliminating weak or redundant neural connections. (Verb: prune).
 - *Example*: Brain **pruning** during childhood helps make our neural pathways more efficient.
- **Simultaneously** (adverb): At the same time. (Adjective: simultaneous; Noun: simultaneousness).
 - *Example*: The bell rang **simultaneously** with the flash of light.
- **Perception** (noun): The ability to see, hear, or become aware of something through the senses. (Verb: perceive; Adjective: perceptive).

- *Example:* Our **perception** of reality is shaped by how our brain processes data.
- **Genetic** (adjective): Relating to genes or heredity. (Noun: genetics; Adverb: genetically).
 - *Example:* The doctor asked if the condition was **genetic** or caused by the environment.
- **Involuntary** (adjective): Done without conscious control. (Adverb: involuntarily; Noun: involuntariness).
 - *Example:* Breathing is an **involuntary** action that happens while we sleep.

Vocabulary for extension

- **Neurological** (adjective; Noun: neurology): Relating to the anatomy, functions, and organic disorders of nerves and the nervous system.
- **Fuchsia** (noun/adjective): A vivid purplish-red color.
- **Cortex** (noun; Adjective: cortical): The outer layer of the cerebrum, playing an important role in consciousness.
- **Mature** (verb; Noun: maturity): To become fully grown or developed.
- **Retain** (verb; Noun: retention): To continue to have something; keep possession of.
- **Activate** (verb; Noun: activation): To make something operative or active.
- **Subject** (noun): A person or thing that is being discussed, described, or dealt with in an experiment.
- **Memorize** (verb; Noun: memorization): To commit to memory; learn by heart.
- **Permanent** (adjective; Adverb: permanently): Lasting or intended to last or remain unchanged indefinitely.
- **Enlightening** (adjective; Verb: enlighten): Providing spiritual or intellectual insight.