

MULTISENSORY LEARNING

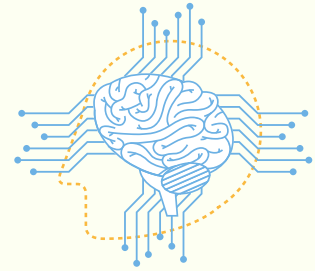
AN ALL-INCLUSIVE APPROACH

WHAT IS IT?

Multisensory learning is the acquisition of knowledge that occurs through the use of multiple senses.

Due to the engagement of multiple senses, multisensory learning demands attention and focus in a way that uni-sensory teaching cannot.

Contrary to common belief, MSL is NOT just for lower grades! This all-inclusive approach can be used with all ages and all types of learners.



WHAT ARE THE SENSES?

Visual, auditory, tactile, kinesthetic, olfactory, and gustatory

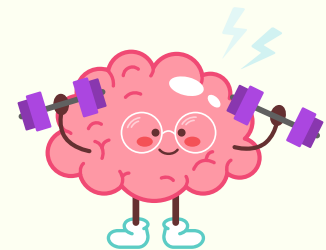
WHAT DOES THE RESEARCH SAY?

When multiple senses are being used, more neural pathways are stimulated (Christie, 2000). Consequently, these multisensory learning experiences are encoded through a large network of neurons (Goswami, 2008; Lacey & Lawson, 2013).

This increase in neuron firing increases neuroplasticity, allowing students to make new connections (Shams & Seitz, 2008).

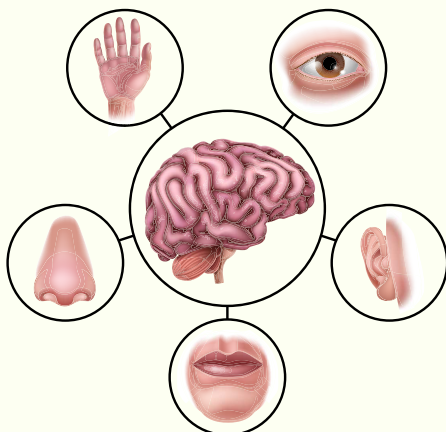
Multisensory presentations generated 50% more creative solutions to problems compared to uni-sensory learning (Medina, 2014). Students are better able to generalize across contexts. This encourages critical thinking as opposed to regurgitation.

Multisensory approaches can result in dopamine release, which positively impacts motivation, working memory, spatial learning and memory, and episodic memory (Warren, 2021).



ADDITIONAL BENEFITS

- Reaches ALL students
- Activates the brain
- Demands attention
- Increases engagement
- Gives ownership of learning
- Creates a collaborative environment
- Challenges students
- Provokes curiosity
- Reduces redundancy
- Can reduce anxiety
- Increases motivation
- Increases ability to solve real world problems
- Natural chunking of lessons and assignments
- Encourages educational FUN!



MULTISENSORY ACTIVITIES

BY THE SENSES

VISUAL

- Sidewalk chalk - can use for vocabulary, concept maps, solving math problems, writing formulas, creating images to encompass concepts
- Colored spaghetti - word study, brain break art
- Imagery
- Decorated classrooms to align with units
- Picture matching for vocabulary or concepts
- Create visual art
- Use of props



AUDITORY

- Create songs and poems that can be memorized and shared through singing or spoken word
- Mnemonic Devices
- Alliterations
- Repeating after you
- Listening to music consistent with time periods
- "Immersing" students in atmosphere (i.e. rainforest, war zone, etc).



TACTILE

- Foam dough
- Shaving cream and cornstarch
- Playdough
- Sand - moon sand, salt, cornmeal
- Stress balls - sand inside balloons or rice
- Sensory bottles - oil and water, food coloring
- Bubble foam - add food coloring
- Poppers- pop out mnemonic devices, sequences, etc.
- Textured paper (tracing)



KINESTHETIC

- Go Noodle
- Charades
- Incorporating exercise: jumping jacks, pushups, relays
- Hopscotch
- Nature walks - pick up leaves, rocks, and pine cones to use as manipulatives
- Balloon Tennis with fly swatters
- Hula Hoop
- Gallery Walk
- Scavenger hunts
- Sensory swings



OLFACTORY/GUSTATORY

Olfactory -

- Use of calming scents in the classroom (i.e. lavender)
- Freshly popped popcorn creates happy moods and a sense of comfort
- Associate smell with concept

Gustatory

- Compare crunchy, chewy, soft foods
- Incorporation of food into lessons
- Recalling taste

