## Five Sense Organs-Naming Your 19 Senses

Regina Rei Lamourelle, Ed.D (2019)

	SENSE	BRAIN INPUT	BEHAVIOR WE CAN DO OR OBSERVE	Using 19 Senses in Classroom
1.	Sight	The light that is visible	Look at books, objects, people and our environment. The upside-down image is captured by the eyes and this visual information travels along the optic nerve to the sight center (Occipital Lobe) at the back of the brain to be processed into pictures.	1, 2, 3, 4, 5, 6
2.	Taste	Chemical molecules that excite our taste buds	Taste food or other objects put in our mouths. Works in conjunction with the sense of smell. Taste buds on the tongue and around the mouths of infants process sweet, sour, salty, bitter and umami (savoriness) tastes which are processed in the brain.	1, 2, 3,
3.	Hearing	Air Vibrations	Hearing sounds which are vibrations that are picked-up through our ears and are processed by the brain's auditory cortex in the temporal lobe.	1, 2, 3, 4, 5, 6
4.	Smell	Chemical Molecules	Smell aromas in the air. Molecules are dissolved in air and inhaled. Processed immediately by the olfactory center in the brain, the sense of smell is the only sense not routed through the thalamus.	1, 2, 3,
5.	Touch	Tactile Contact	Distinguishing between objects and people by touch.	1, 2, 3, 4,
6.	Vomeronasal	Pheromonic Sensing	Subconsciously respond to pheromones in mating and bonding.	1, 2, 3
7.	Ultraviolet Rays	Short Electromagnetic Waves	Sensed on the skin as sunburn.	6
8.	Proximal	Physically Close	Feeling when objects or people are close. The sight-limited have this sense heightened.	1, 2
9.	Electrical	Surface Electrical Charges	Our bodies have a surface electrical charge that is transmitted to others on touch.	1, 2
10.	Pain	Nocioception	Recognizing many types of noxious stimuli that are sensed by the skin.	1, 2, 3
11.	Balance	Kinesthetic Geotropic	Maintaining balance when walking, running and balance by adapting to gravity.	1, 2
12.	Vestibular	Repetitious Movement	This sense helps us remain upright when objects or we move.	1, 2
13.	Barometric	Atmospheric Pressure	Forecasting the weather. When the air pressure changes, we sense this through the skin, ears, and joints.	1
14.	Geogravimetric	Sensing mass Differences	Distinguishing between the size, mass, and density of objects by touch.	1
15.	Temperature	Molecules in Motion	When molecules move fast we sense this as heat and slower moving molecules are experienced as cooler.	1, 2, 3
16.	Eidetic Imagery	Neuro-electrical Image Retention	Images conjured up in our minds. " In my mind's eye, I see"	1, 2, 3, 4
17.	Magnetic Waves	Ferromagnetic Orientation	Sensing the pull of a magnetic field such as in a Magnetic Resonance Imaging (MRI) device.	6
18.	Infrared Rays	Long Electromagnetic Waves	Part of the white light spectrum that is sensed on the skin	6
19.	Ionic Rays	Ionic Charges	When the air contains many negative ions, we feel refreshed (like after a rain) and when there is an abundance of positive ions, the air feels heavy. (Before a rain)	6

According to Rivlin and Gravelle, the idea that we have only five senses stems from a long held belief that there is a mystical relationship between the senses and the world that is sensed. Accordingly, the five senses were symbolic of a divine plan for the universe. The sensory organs fit this paradigm, whereas, other senses such as: temperature, pain, pressure did not. The more senses involved in learning, the better able the brain is able to make patterns and create meaning (Source: *Kovalik, 1994. <u>The Model: Integrated Thematic Instruction</u>)* 



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## Strategies for Using 19 SENSES in the Classroom

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ONE (1): BEING THERE - Measuring the height of buildings in the city. (MOST EFFICIENT LEARNING STRATEGY PROVIDES THE MOSTSENSORY INPUT BUT IS THE LEAST USED IN CLASSROOMS)



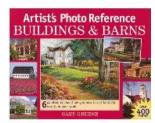
TWO (2): IMMERSION- In the classroom, make a scale model of the city buildings and measure them. Bring in architects or surveyors to visit the classroom to show how they measure buildings and determine angles. (NEXT BEST PROVIDING SENSORY INPUT BUT USED INFREQUENTLY)

THREE (3): HANDS-ON REAL THING- Bring samples of authentic building materials, measuring instruments, and plants from the city (THIRD MOST EFFICIENT STRATEGY, USED MORE IN PRESCHOOL AND LOWER GRADES)

FOUR (4): HANDS-ON REPRESENTATIONAL -Use blocks to represent the buildings in the city and replicas of measuring devices. (FOURTH MOST EFFICIENT STRATEGY, USED MORE IN PRESCHOOL AND LOWER GRADES)



FIVE (5): SECOND-HAND LEARNING- Watch a movie about how the buildings are measured or take pictures of the measuring process or buildings. (USED MOST WITH THE LEAST SENSORY INPUT)



SIX (6): SYMBOLIC CONNECTIONS- Read a story about measuring buildings, recite statistics and formulas needed to make calculations and/or read stories about architects designing buildings. Draw pictures of buildings. Discuss the process of measuring buildings and memorize formulas needed for a test. SENSORY INPUT, LEAST EFFECTIVE LEARNING STRATEGY BUT IS THE MOST USED IN

**SCHOOLS)** (Source: Kovalik, Integrated Thematic Curriculum (1994)



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