

Understanding Sensory Processing

Sensory processing is the way the nervous system receives information from the environment through the senses and enables us to produce an appropriate response.

Sense	Definition	Typical sensory processing (what it looks like when sensory processing is going well)	Sensory processing issues (what it looks like when sensory processing is <i>NOT</i> going well)	Calming activities	Alerting activities
Smell (olfactory)	Receptors in the nose receive information about smells in the environment	Able to perform tasks without letting smells get in the way of performance or trying to leave an activity or room due to a smell	Pushing food or scented items away Becoming upset or leaving the room when overwhelmed by smell	Incorporate essential oils Incorporate preferred scents into academic tasks (i.e. write with peppermint) Use scented markers	Use scented lotion or soap Prior to tasks spray citrus scent Use scented stickers as a reward
Taste (gustatory)	Receptors on the tongue receive information about taste (bitter, sweet, sour, salty, spicy)	Able to eat a wide variety of foods with different tastes Able to transition from one taste to another with ease	Eats non-edible foods Eats limited number of food textures	Chew or suck on mild flavors such as suckers or chew toys Suck thick liquids through a straw Drink from a sports water bottle Provide a chewy Blow whistles, bubbles, balloons, feathers, cotton balls, musical	Eat crunchy foods such as celery, chips, pretzels, apples, carrots, ice, etc. Eat chewy foods such as licorice, jerky, gum, fruit snacks, etc Blow whistles, pinwheels, bubbles, feathers, balloons, cotton balls, etc. Eat frozen items such

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(cont)				instruments etc. Drink warm liquids such as hot chocolate, soup, tea, etc.	as ice, grapes, popsicles Keep water bottle with cold water on desk
Hearing (auditory)	Receptors in outer/middle ear receive information about sound, including volume, pitch, rhythm	Attends appropriately to person instructing Able to filter out ambient noise in order to complete a task	Difficulty filtering background noise Easily distracted Makes noise to self	Listen to quiet music with slow, even beat Listen to soft singing or humming Prewarn loud noises Work in a quiet environment Use headphones	Listen to music with varied pitch, volume, or uneven/fast beat Speak with animated high and low voice Provide frequent opportunities to examine novel sound producing toys Use sound-producing materials to complete classroom projects Prewarn loud or novel sounds
Vision (visual) Vision	Receptors located in eyes receives information about light/dark, color, movement, detects visual images	Able to distinguish objects from background Can differentiate between similar objects by sight Able to judge distance/orientation of objects	Avoids bright light Difficulty focusing in cluttered spaces Spins items and intently watches Difficulty finding a specific object in a busy picture Confuses the letters "b" and "d" frequently	Work in dim light or with lights turned off Block distractions by using a screen, room divider or study carrel Wear sunglasses Provide visual materials such as glitter wand, oil and water toys Work at a desk without distractions	Work in bright lights Use a flashlight to point or highlight important information Use brightly colored paper Use a highlighter to underline important text Use colored chalk Use a slant to place

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(cont)				Work in natural rather than artificial light	materials at an angle Use a visual strip for reading
Touch (tactile)	Receptors in skin receive information about light touch, pressure, vibration, temperature and pain	Able to feel the quality of an item we are touching (hard, soft, sharp, smooth, rough)	Touches other students' belongings Comes into others' personal space	Wear weighted vests, pressure vest, or ankle weights Snuggle under blankets Play with resistive putty	Sustain light touch to the palm of hand Hold something cold Gently and quickly rub the skin
Movement and balance (vestibular)	Receptors in the inner ear receive information about movement, change of direction, change of head position and pull of gravity	Able to maintain balance while sitting, walking, running, jumping Able to attend and focus without requiring excessive movement to do so	Leaning on objects for support Spinning/rocking Constant fidgeting at desk	Participate in linear rhythmic movements (back and forth or side to side) Push/pull heavy items Swing Rock in a rocking chair Roll back and forth on a ball Swing in a hammock or lycra swing	Participate in rotational movement (spinning, putting head upside down) Jumping jacks Frog jumps Ride a scooter board Sit and bounce on a therapy ball Roll over a therapy ball onto hands and do activities in inverted posture Upside down bowling Spinning in swing or standing Summersaults or cartwheels
Body position	Receptors in muscles and joints receive information about the	Able to judge appropriate amount of force to	Bumps or "crashes" into objects	Wall push ups	Help out by passing out papers, erasing a

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	position of body parts, their relation to each other, their relation to other people/objects	<p>push/pull/grasp</p> <p>Able to type without looking at keyboard</p> <p>Able to pedal a bicycle without looking down at one's feet</p>	<p>Falls</p> <p>Unable to judge the appropriate amount of force to push/pull/grasp</p> <p>Slouches when sitting in chair or on the floor</p>	<p>Push heavy furniture</p> <p>Push a heavy cart to do deliveries</p> <p>Carry boxes of books</p> <p>Carry or sit under a weighted blanket</p> <p>Carry a weighted pillow</p> <p>Hang from a chin up bar</p> <p>Do yoga poses</p>	<p>board or making deliveries</p> <p>Exercise or dance</p>

Compiled by HDESD Occupational Therapists