What is 'sensory processing'? Sensory processing is our ability to receive physical information (visual, auditory, olfactory, gustatory, tactile - as well as vestibular, proprioceptive, and interoceptive), transmit that information via effective neural pathways, and perceive or consciously experience the sensation. A critical 'next step' is ACTING ON this sensory processing in a way that permits you to function and participate with people, materials, and occupations. Effective processing/integration of sensory information – and actively seeking and/or ignoring this information – allows us to maintain the appropriate state of arousal (this is called 'self-regulation,' and we all do it all the time) in order to learn from and participate in everyday occupations.

What is 'Sensory Processing Disorder'? SPD is a life-span neurological disorder in which sensory information perceived from the environment or one's own body is processed abnormally, resulting in an inappropriate or ineffective response/behavior. Perception of the sensory information is affected (things can be perceived with greater or lesser intensity than what is typical) - and, as a result, behavior (in an attempt to cope with this sensory input) is affected.

What is the prevalence of SPD? Research on SPD has primarily focused on children; however, SPD is a life-span disorder. The estimated prevalence of SPD ranges from 5% to 16% for children without disabilities - and from 40% - 80% for children with disabilities. The most common comorbidities are diagnoses of Autism Spectrum Disorder, Attention Deficit / Hyperactivity Disorder, Fragile X, Prader-Willi Syndrome, PTSD, and some Learning Disabilities (e.g., dyspraxia, dysgraphia, dyscalculia) [Source: STAR Institute for Sensory Processing Disorder].

What do people with SPD need? Since SPD results in environmental information being perceived with either greater OR lesser intensity, people with SPD need to have many options for either avoiding (taking a break from!) or seeking out (getting more of!) all kinds of sensory information (visual, auditory, olfactory, gustatory, tactile...as well as proprioceptive and vestibular).

Sensory Processing through the lens of Universal Design & the concept of Design Empathy - The principals of Universal Design – Equitable Use * Flexibility in Use * Simple & Intuitive Use * Perceptible Information * Tolerance for Error * Low Physical Effort * Size and Space for Approach & Use could be applied to evaluating the sensory experiences of an environment [Sources: NCSU Center for Universal Design and Centre for Excellence in Universal Design]! In terms of crafting sensory-friendly spaces, the idea of “design empathy” has emerged out of these concepts of Universal Design, moving to include both physical accessibility and sensory accessibility [Sources: ArchNet and The Globe and Mail].

By providing multiple avenues to experience PLAY,
we can promote access, inclusivity, and community well-being.