Introduction to the Senses and Occupational Therapy provision at TCS

Donna Guest

Webinar Overview

- Introduction to Donna Guest
- Occupational Therapy
- Todays focus will be on an Introduction to the senses
- How we support sensory needs at TCS

Donna Guest

- I qualified as an Occupational Therapist in 1995
- Post graduate qualification in Sensory Integration
- I have worked in health and education provision
- I support the learning of other health professionals, parents and teachers.

Occupational Therapy

Children's Occupational Therapists (OTs) support children to engage and participate in their chosen activities (occupations). Children's activities can include playing, school work, dressing, feeding, reading, friendships and sports.

Occupational therapists are the only allied health professionals that learn about both physical and mental health. Their core focus is function and independent participation.


Sensory issues must be considered in the context of the person's occupational engagement and performance within relevant environments.
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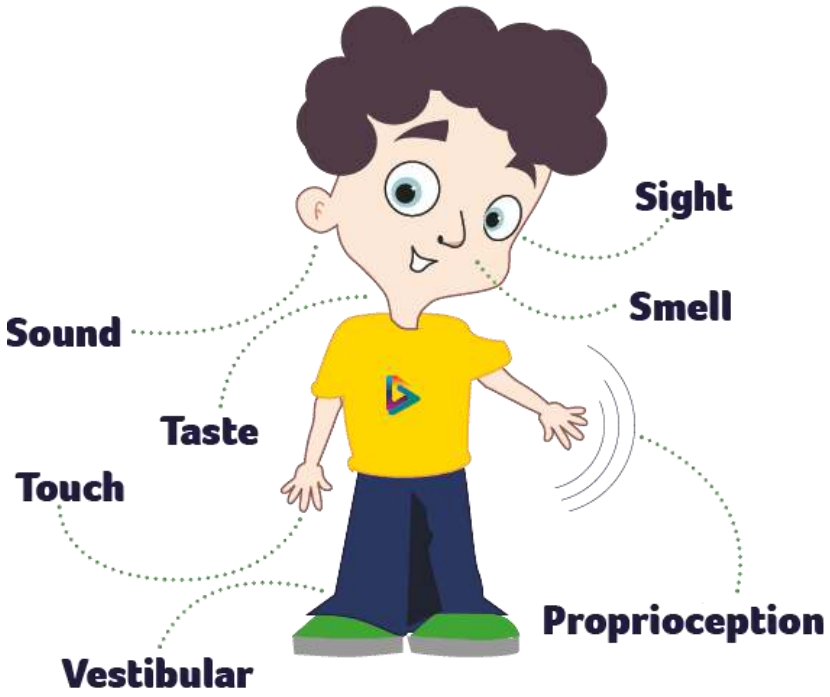
Introduction to the senses

- Sensory Integration refers to how we use the information provided by the senses within our body and from our environment.

- Sensory information is received, processed and integrated to give us an understanding of who we are, where we are and what is happening around us.

- When our senses are integrated well we can respond appropriately to the sensation. When they are not daily activities can be tricky.



The Senses

VISUAL

AUDITORY

TACTILE

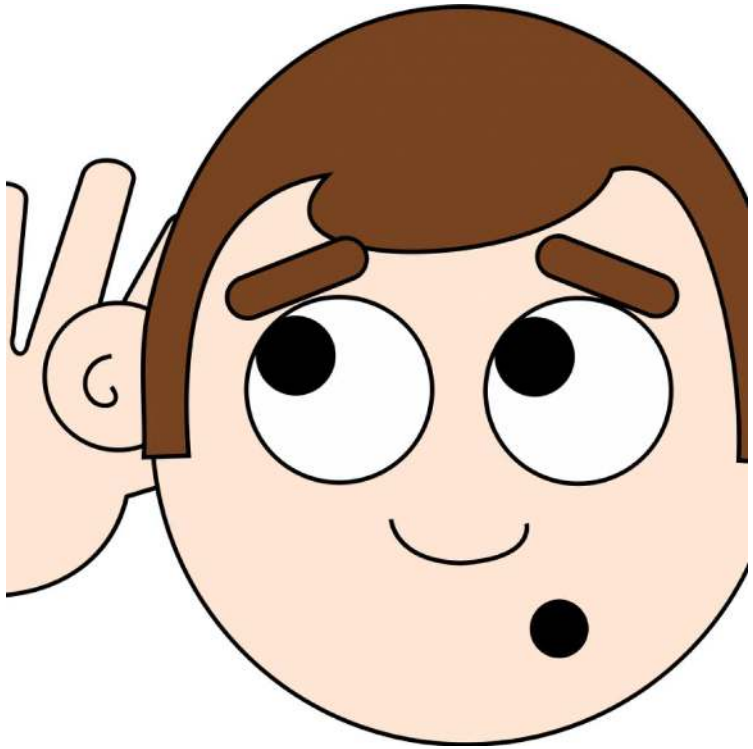
SMELL

TASTE

VESTIBULAR (balance) tells us about how our head is moving in space

PROPRIOCEPTION (body awareness) gives us a map of where our body is and helps us to move it about

INTEROCEPTION – the sense of the internal state of our body



Auditory

- Located in the inner ear and stimulated by air and sounds
- Allows us to interpret and process sounds from our environment
- Detects the source and location of the sound and distinguishes sounds from background noise
- Helps to distinguish between sound
- Helps to recognise sounds in different locations
- Allows us to identify tone, pitch, rhythm and sequence of sounds

Visual

- Provides information about about objects of persons in the environment
- Helps us to be aware of hazards, boundaries etc as we move through space

Taste and Smell

- Closely linked together
- Provides information on different types of tastes and textures
- Helps us to identify threat e.g. burning smell, rotten food
- Smell linked to memories

Vestibular System

- SENSORY MINIS - VESTIBULAR - YouTube

The VS consists of sensory receptors that are located in the inner ear which provide us with information on movement, gravity and vibration.

These canals have little hairs with tiny carbonate crystals (like raindrops or pebbles) resting on them, which are covered with a fluid

When your head is tilted, moved from side to side, is held upside down etc, the hairs and the crystals shift from their normal position alerting the brain to a change in the heads' relation to gravity e.g. are we moving, standing still, direction and speed of movement etc.

Allows us to make the necessary postural adjustments to prevent us from losing balance and falling over.

Different types of movement provides different stimulation, jumping up and down causes the crystals to jiggle up and down, running and using swings make them sway back and forth and make the fluid swish around.

Spinning and quick start stop movements provide intense vestibular feedback e.g. swinging, rocking, spinning. Vibration is carried by the bones to the inner ear.

Proprioceptive System

[SENSORY MINIS - PROPRIOCEPTION - YouTube]

Tiny receptors from the proprioceptive sense are found in the body's muscles, ligaments and joints and are stimulated by movement.

They send messages to the brain as to whether the muscles are stretching or contracting and if the joints are bending or straightening.

These receptors inform us of where exactly our bodies are in space without us having to look e.g. allows us to reach behind our backs to tie an apron etc.

They let us know that our bottoms are on the chair, our feet are resting on the floor etc. without us needing to look.

An efficient proprioceptive sensory system is essential for the performance of smooth movement

Tactile

[SENSORY MINIS - TOUCH - YouTube]

First sense to develop in the embryo and the largest sensory system in the body.

This sensory system receives information from the receptor cells in the skin, which are located all over your bodies.

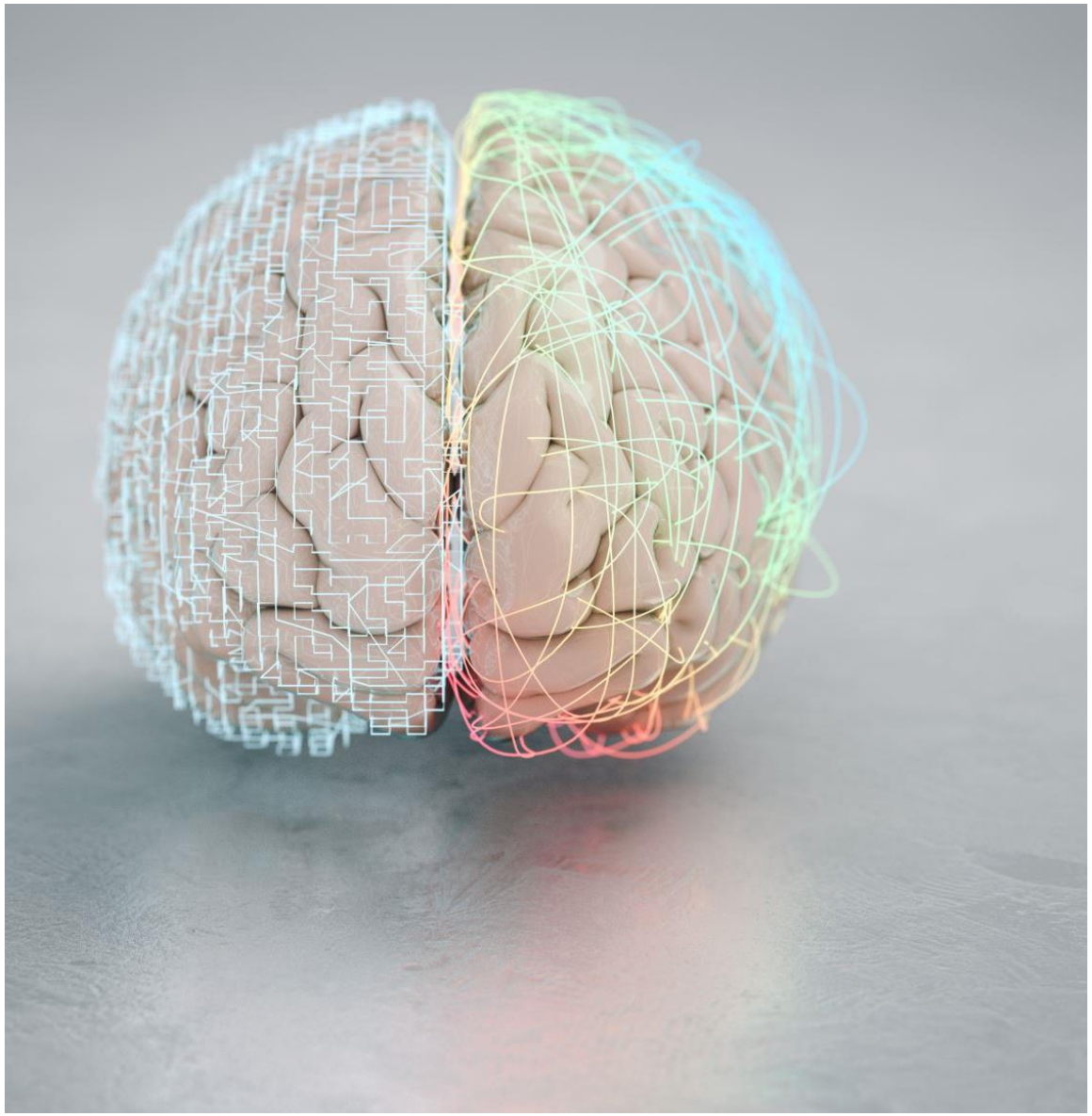
It provides information on different types of touch sensations i.e. light touch, deep pressure, vibration, pain, temperature etc.

It has both protective and discriminative abilities and the successful function of the tactile system depends on the correct balance between these abilities.

Feedback from this system contributes to our body awareness and motor planning and all functional tasks depend on a well integrated tactile system.

Too much sensory information

Can you make it to the end? - YouTube



Without sensory input we wouldn't know anything about the world around us or how we feel from within our own bodies. The world around us is full of sensory information – pathways carry sensory information to our brain, where we will register, interpret and make sense of it, before deciding what to do or how to respond.

Our brain is constantly being rebuilt and reshaped by the sensory inputs we get from interacting with the world and others.

- The brain locates, sorts and orders sensations – somewhat like a traffic policeman directs moving cars
- When the sensations flow in a well organised manner, the brain can use the sensations to form perceptions, behaviours and learning
- When the flow of sensation is disorganised life can be like a rush hour traffic jam

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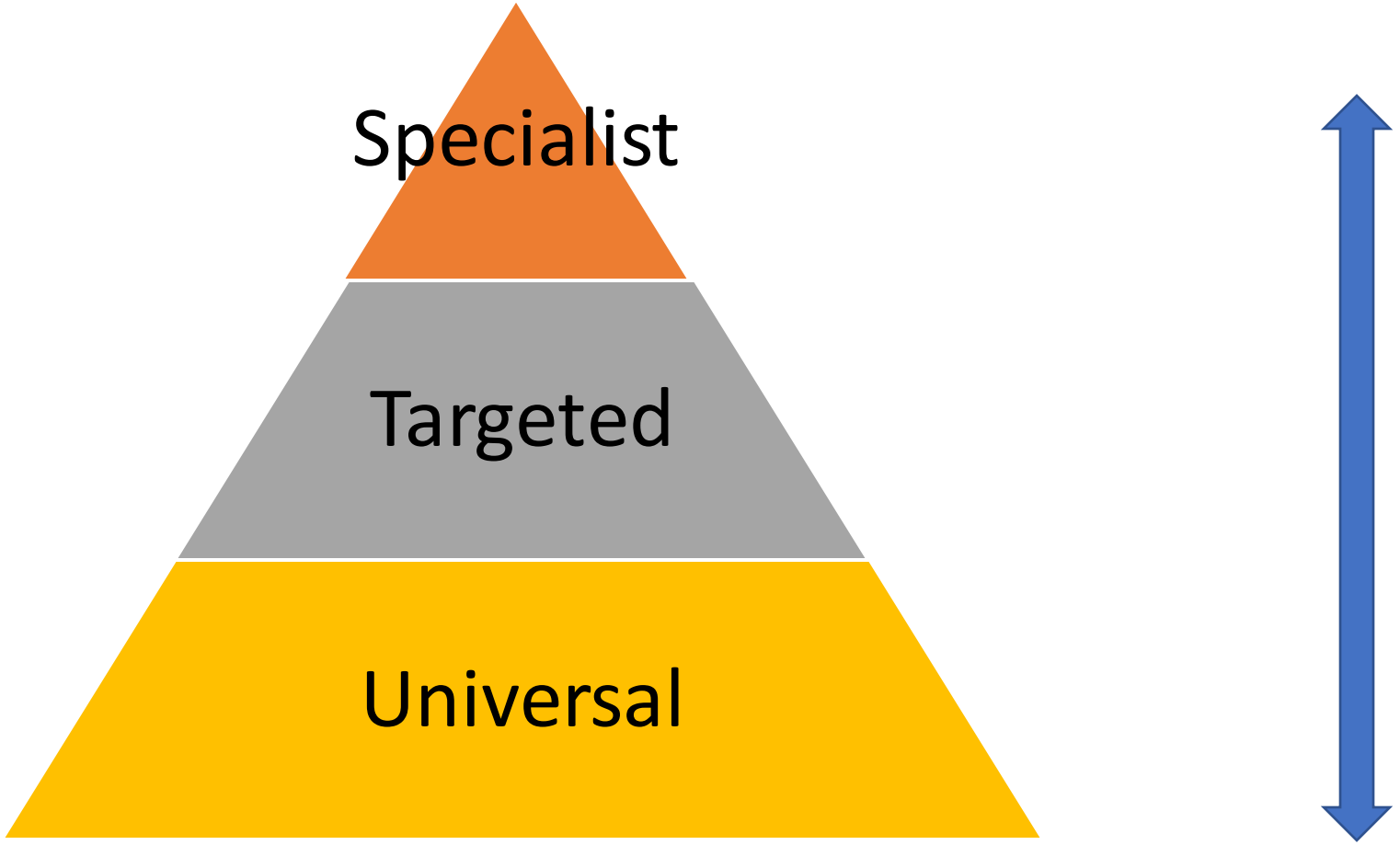
Sensory Integration at TCS

Occupational Therapy Provision at TCS



Universal

Our ethos is that sensory strategies are most effective when fully embedded throughout the day.

- Relaxation room
- Regulation room
- Outside space
- Quiet work areas
- Sensory Circuits
- Sensory Strategies
- Different seating options
- Zones of regulation

- School observations

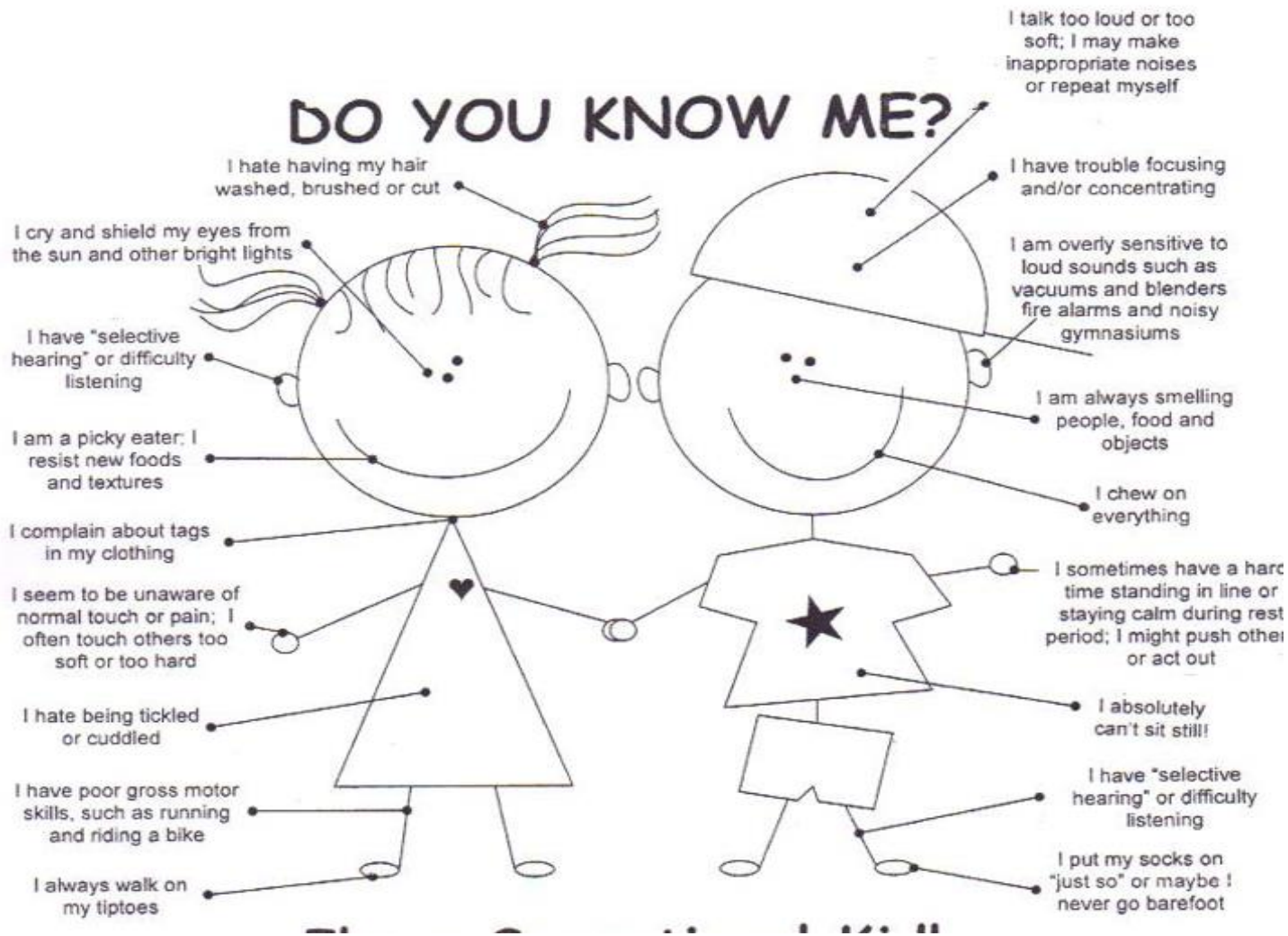
- Sensory Passport – new project

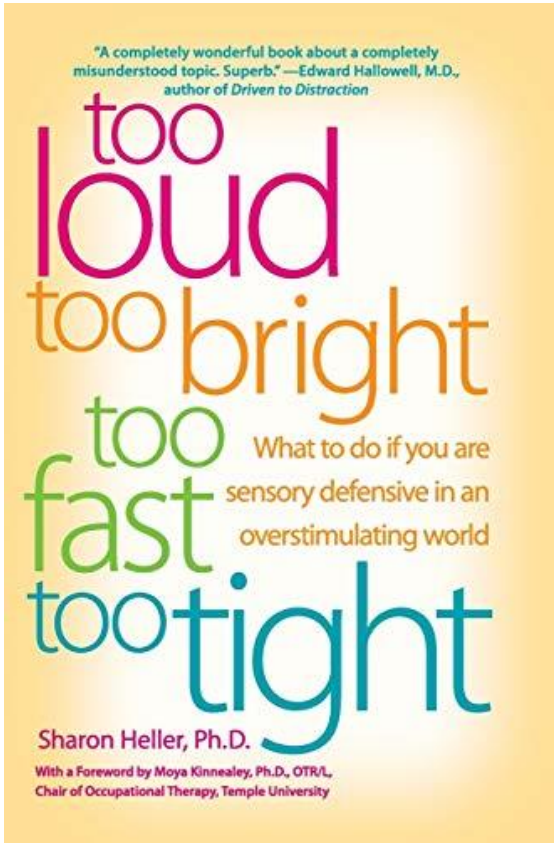
Targeted

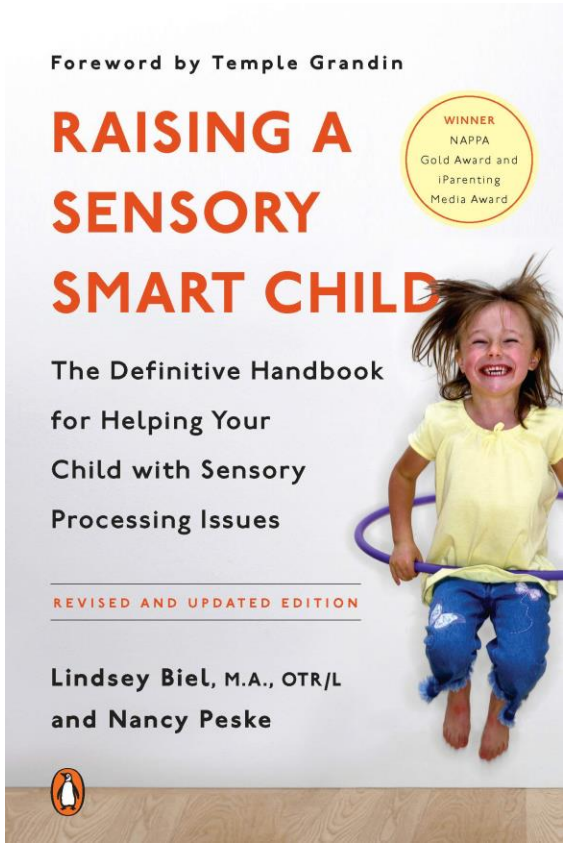
- Some children require more support to meet their needs.
- Additional assessment
- Specific advice
- Some individual sessions with OT then share with class – sensory ladders, handwriting….
- Coaching

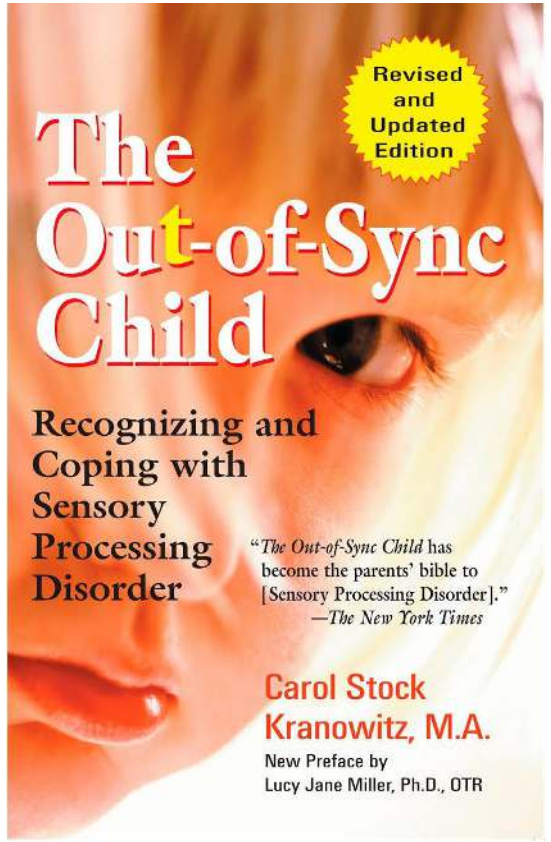
Specialist

- A few children will require specialist intervention to support their needs – direct OT intervention
- Bespoke programmes
- EHCP provision


DO YOU KNOW ME?
I talk too loud or too soft; I may make inappropriate noises or repeat myself
I hate having my hair washed, brushed or cut
I have trouble focusing and/or concentrating
I cry and shield my eyes from the sun and other bright lights
I am overly sensitive to loud sounds such as vacuums and blenders fire alarms and noisy gymnasiums
I have "selective hearing" or difficulty listening
I am always smelling people, food and objects
I am a picky eater; I resist new foods and textures
I chew on everything
I complain about tags in my clothing
I sometimes have a hard time standing in line or staying calm during rest period; I might push other or act out
I seem to be unaware of normal touch or pain; I often touch others too soft or too hard
I absolutely can't sit still!
I hate being tickled or cuddled
I have "selective hearing" or difficulty listening
I have poor gross motor skills, such as running and riding a bike
I put my socks on "just so" or maybe I never go barefoot
I always walk on my tiptoes







Some of my favourite books