

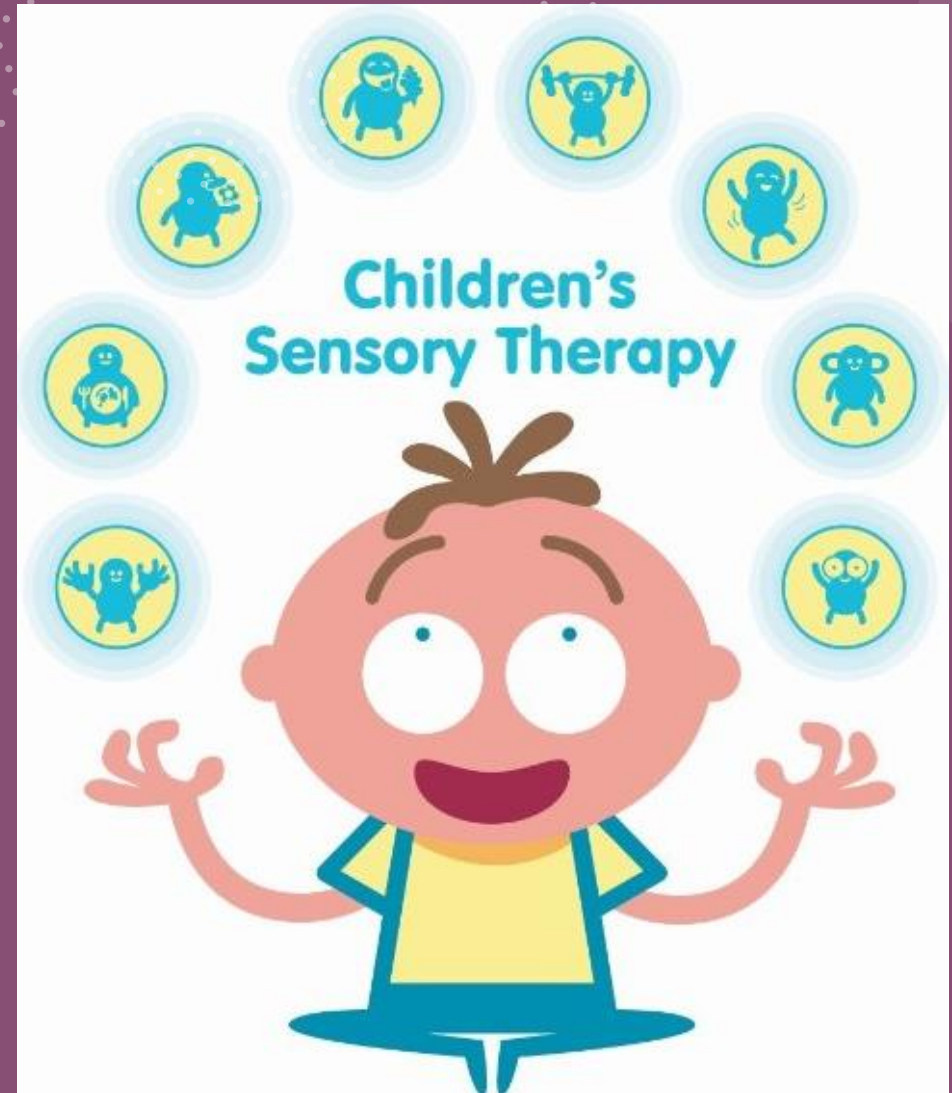
Building Bridges and Co-creating Support for Neurodivergent Families

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Karen Hazard (Managing Director, Occupational Therapist & Advanced Sensory Integration Practitioner)

Jen Quinn (Clinical Director, Occupational Therapist & Advanced Sensory Integration Practitioner)

office@childrensensorytherapy.co.uk
www.childrensensorytherapy.co.uk



Who we are



So, what senses do we have?

➡ Hearing



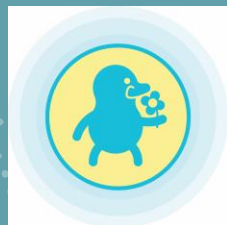
➡ Vision



➡ Taste



➡ Smell



➡ Touch



➡ Proprioception



➡ Vestibular



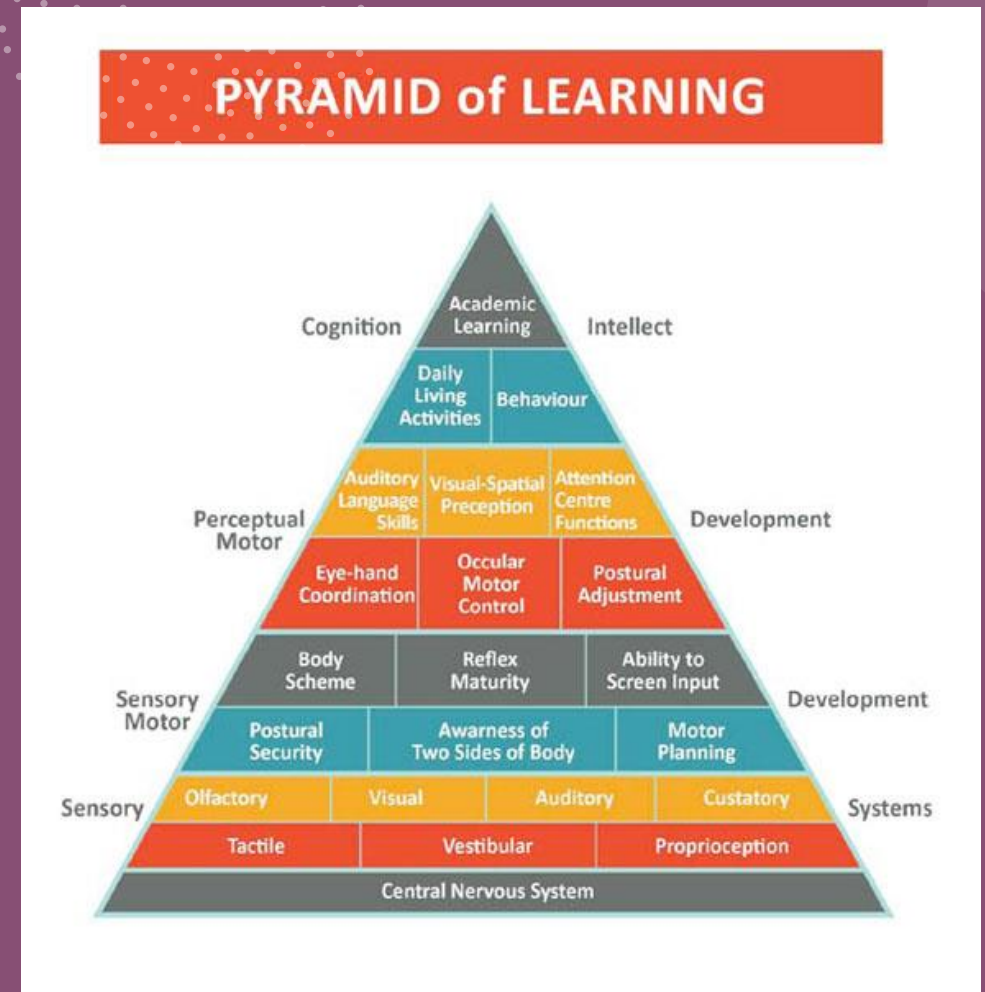
➡ Interoception



The Pyramid of Learning

- Our senses are the building blocks for all other skills we learn and use in life.

Look how much has to 'go right' for us to engage in academic learning and manage our behaviour...



We all have a Sensory Profile

How do your sensory needs differ from others in your household?

How does different sensory stimuli make you feel e.g. shower v's bath, rollercoaster, trampoline, loud music v's quiet.

It's when it impacts on your ability to function that this becomes a problem.



Neurodiversity and Sensory Processing Difficulties (1)

Autism:

- Approximately 80% of individuals with Autism experience co-occurring sensory processing difficulties [Ben-Sasson et al 2009]
- In 2022 a major US population-level study examined 25,627 autistic children and found: 74% had documented sensory features (sensory hyper-/hyporeactivity or sensory-seeking). [Kirby et al 2022]
- The National Autistic Society's 2023 Education Report reports over 180,000 autistic pupils in England, with 73% in mainstream schools.

Neurodiversity and Sensory Processing Difficulties (2)

ADHD:

- Based on the Sensory Profile assessment, children with ADHD showed significant impairments in sensory processing compared to a control group and differences in behavioural and emotional responses. [Shimizu et al 2014]
- A systematic review and meta-analysis examined 30 studies including over 5,000 participants to assess the link between attention-deficit/hyperactivity disorder (ADHD) and atypical sensory processing. Findings show that individuals with ADHD experience significantly higher sensory sensitivity, sensory avoidance, sensory seeking, and low sensory registration compared to controls. Given their impact on daily functioning, assessing sensory processing could improve clinical evaluations for both children and adults with ADHD. [Jurek et al 2025]

FASD (Fetal Alcohol Spectrum Disorder):

- A study conducted by the University of Salford in 2021 suggests that the prevalence of FASD in the UK may be as high as **3-5%** among school-aged children. [McCarthy et al 2021]
- In a 2 form entry (cohort of 60) school, this would be between 2- 3 children per year group.
- Further research is needed to obtain specific figures, current research states, “sensory processing difficulties and behavioural issues are interrelated in children with an FASD.”

[Breuer et al 2024]

Parent Feedback

We cannot say enough good things about this children's sensory therapy service. The assessments were incredibly thorough, thoughtful, and genuinely helped us understand our son in a way no one else ever had. The treatment he received was, without question, the best therapy he's ever had—and he has tried many different therapies over the years. The therapists were skilled, compassionate, and truly invested in his progress. The impact has been life-changing for our son and for our family. We are beyond grateful for the care, expertise, and dedication shown here and would recommend this service to any parent seeking real, meaningful support for their child. Before this therapy my son's world was small, now it's huge and he's thriving!

Sensory Thresholds – these can vary between the 8 senses



1. Hypersensitivity/Over-Responsivity

- **Definition:** Overly responsive to sensory input.
- **Characteristics:**
 - Discomfort or distress from stimuli.
 - Strong reactions to stimuli others find tolerable.
 - Seeking to actively avoid the stimuli or respond in ways that seem unusual/excessive.

2. Hyposensitivity/Under-Responsivity

- **Definition:** Reduced response to sensory input.
- **Characteristics:**
 - Requires intense stimuli to notice or react.
 - Some children will seek out more intense sensory experiences.
 - Some children are passive – they need more sensory feedback to regulate/engage but they do not seek it out.

Sensory Thresholds – these can vary between the 8 senses

3. Sensory Seeking

- **Definition:** The child is not under or over responsive but their threshold for sensory stimuli is much greater than the typical persons.
- **Characteristics:**
 - The child proactively engages in behaviours to fulfil their sensory needs.
 - It takes a lot of sensory feedback to overwhelm them but they aren't always able to self-identify how much is too much.

Implications for Learning and Behaviour:

- Recognising individual sensory profiles can improve engagement, focus, and well-being.
- Understanding a child's sensory thresholds can help us to tailor learning environments and identify which strategies may be most effective.

Is under-responsivity (hypo-responsivity) harder to identify?

- 40% of SENCOs surveyed had engaged in some form of training on sensory processing.
- There was a correlation between those that had received training and those that had good knowledge of the signs of sensory over-responsivity. There was no statistical significance of increased knowledge on sensory under-responsivity between those who had and had not received training.

[Quinn et al 2022]

SEND White Paper 2026 (1)

A consultation on the proposed changes to the code is planned to follow the response to the SEND consultation. The proposed 'areas of development' to replace 'areas of need' are:

- executive function
- motor and physical
- sensory
- speech
- language and communication
- social and emotional

[Department for Education, SEND reform: putting children and young people first, February 2026, p32]

Each of these proposed areas of development can be significantly influenced by sensory processing differences, which shape how an individual responds, learns, communicates, and engages with their environment.

The White Paper commits £1.8bn to improve access to health professionals, including: Speech and Language Therapists and Educational . Occupational therapists are not named, but we fall under "health professionals".

On 23rd February 2026 and 4th March 2026, the Royal College of Occupational Therapists (RCOT)

- The White Paper recognises the importance of having occupational therapists in schools and across neighbourhood teams so children can get the right support at the right time. (February)
- OTs are recognised as key professionals in the new Experts at Hand specialist teams. They (RCOT) are now working with government to shape practical implementation and ensure OT is embedded in delivery structures. (March)

SEND White Paper 2026 (2)

What parents need to know about changes to the SEND system

– DfE education Hub Blog – 24th February 2026 - How is the system being changed?

We are creating a simple, logical system to meet the needs of all children and young people with SEND.

This starts with a universal offer of support which every child will benefit from, across all schools.

This includes high-quality adaptive teaching, calm environments, and early help when needed.

We expect most children will have their needs met through this offer.

But for children and young people with additional needs, there will be three further levels of support: targeted, targeted plus, specialist (see blog/paper for further details on these).

Policy paper - Every child achieving and thriving DfE 23rd February 2026

“Calm, caring and predictable environments are inclusive environments for all children, including children with SEND. But these conditions can only be achieved where expectations and standards of behaviour are consistent and high. For too many children this is still not their experience. We must go further to ensure all children, including those with SEND, reap the benefits of a calm and inclusive environment.”

“The expectation of high standards of behaviour should be the same for all children. Inclusive schools consider how behaviour policies can best be designed and implemented to maintain these high standards, but also identify and address the root causes of individual behaviours, including where these might be associated with a child’s special educational needs and disabilities. This means understanding a child’s needs early and putting the right support in place.”

The Physical Environment

- Access to different environments e.g., nurture spaces, dens/containment, physically active.
- Weighted tools (lap pads, blankets, vests)
- Adapted writing tools or angled boards
- Heavy stations e.g. push/ pull
- Activity corridors
- Therapy balls/ zuma rockers/Ergo Ergos
- Movement breaks
- Swings
- Balance boards and scooter boards
- Team around the child – include access to different staff that the child knows they can seek out.

Sensory Friendly Classrooms

Access to:

- Low stimulation/contained spaces
- Consideration given to external stimuli including smells
- Outside space
- Whole body movement
- Lighting and visual environment
- Noise control
- Sensory breaks
- Touch and textures
- Dynamic seating: flexible seating options
- Predictability and routines
- Team around the child

Sensory Strategies

Each person has a unique sensory profile, influenced by factors including neurodiversity, past experiences, and preferences.

What works for one individual may not work for another.

- Observe the child's responses:
- Some children are excessively compliant and will say they like something/are fine, when they are not.
- Notice the differences between the child's behaviour before, during and after a sensory strategy has been implemented.

There are no quick fixes! Embedding effective sensory strategies takes time.

Frequency and duration are both important.

The strategies listed here are some examples that can work for a range of different sensory processing needs.

A child should never be forced to engage in a sensory strategy and they should never be used as a reward.



Sensory Differences Are Unique

Children may show a **mix of over- and under-responsivity** across different sensory systems. For example:

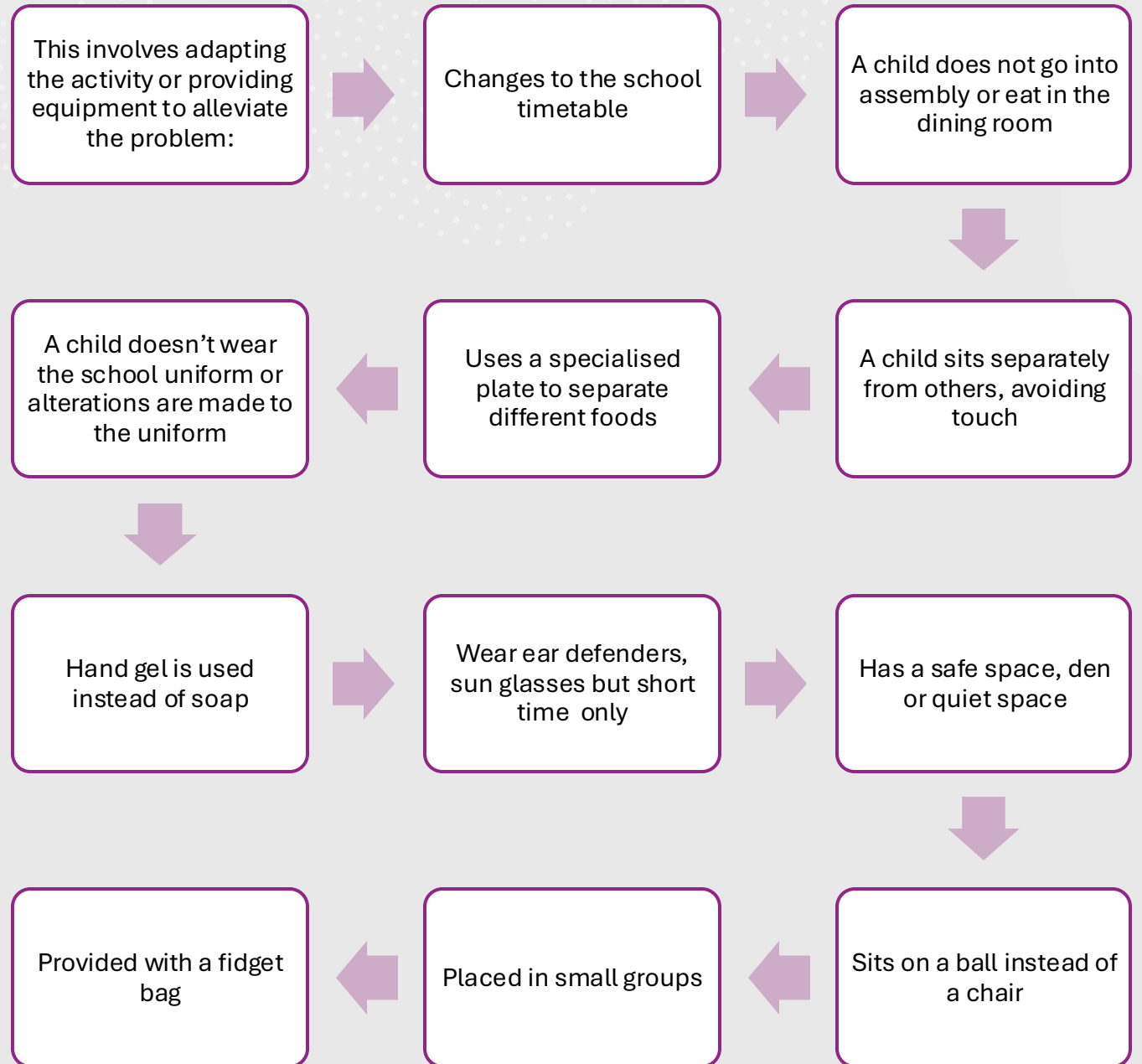
- Over-responsive to touch (e.g. avoids messy play)
- Under-responsive to movement (e.g. seeks out climbing, crashing)

This reflects their **individual nervous system** profile – not all strategies work for every child.

Why Individualised Strategies Matter

- A strategy that calms one child may overwhelm another
- We must understand each child's **sensory pattern**, needs, and preferences
- Tailored approaches lead to **better regulation, engagement, and wellbeing...or 'behaviour'**

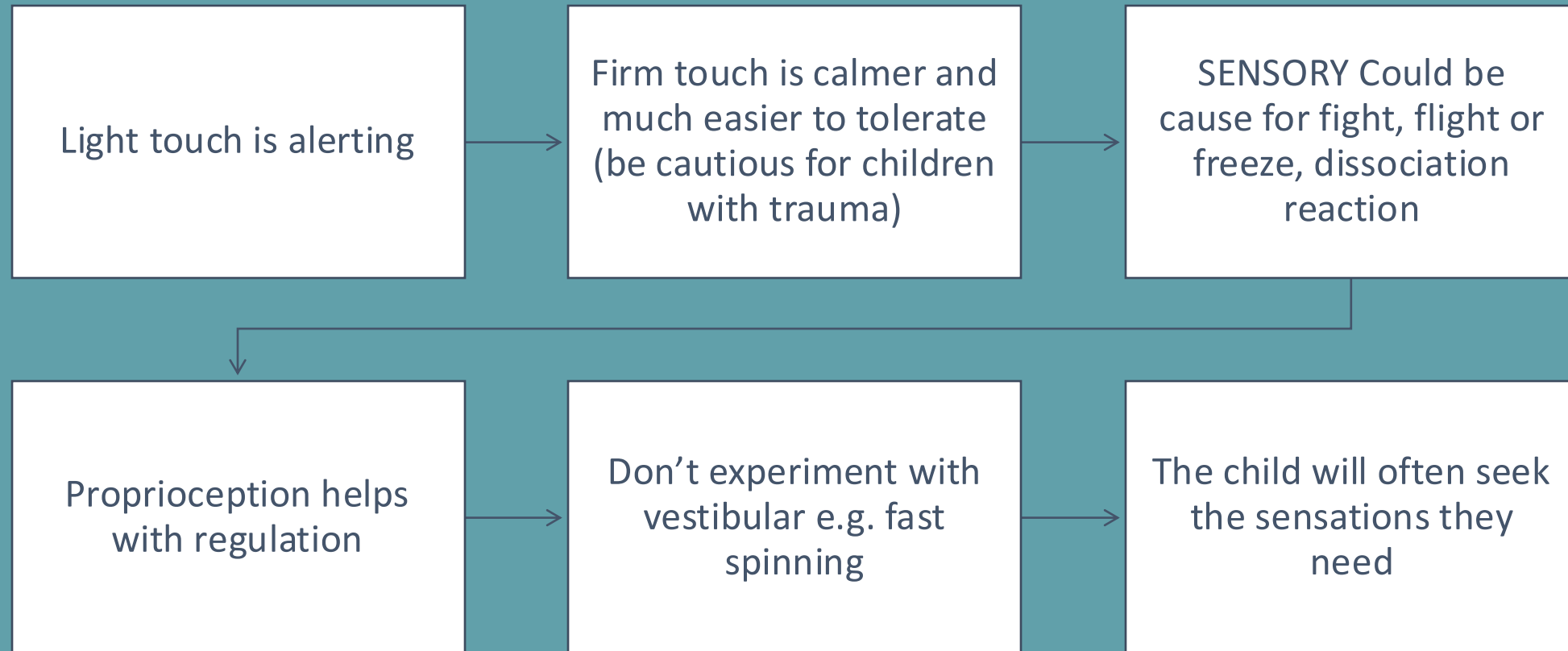
Compensatory Strategies



Can't hurt, might help...

- Fidget tools and sensory kits (not conditional or as a reward)
- Noise cancelling headphones (limited time only)/ear loops
- Calm corner
- Flexible seating
- Dim or soft lighting
- Personal space/ boundaries
- Chewable tools or crunchy snacks
- Sensory diets
- Movement breaks (with some proprioception)
- Weighted lap pads or blankets
- Visual timetables
- Areas with reduced visual stimuli
- Scent free zones (proximity to the kitchen, toilets etc considered)
- Separate eating areas
- Heavy work activities
- Allotments
- Trim Trials

General Principles



Additional Information on each of the 8 Senses

**– shared for information following on from
today**

Auditory System (Hearing) Hypersensitivity (Over- Responsive):

- Covers ears in noisy environments (e.g., during recess or assemblies).
- Easily distracted by background noise (e.g., the hum of a projector or the sound of a pencil tapping).
- Avoids group activities due to overwhelming noise levels.
- Frequently asks others to be quiet or seems irritated by normal classroom sounds.



Hyposensitivity (Under- Responsive/ poor discrimination):

- Does not seem to notice loud noises (e.g., fire alarm or bell).
- Frequently speaks loudly or makes noises, unaware of their volume.
- Has difficulty following verbal instructions unless given multiple times.
- May seek out noisy environments or make repetitive noises (e.g., humming).
- A child might confuse words that sound alike, such as "cat" and "cap" or "bat" and "pat."
- Difficulty following conversations
- Inability to identify the source of sounds
- Difficulty with multi step instructions

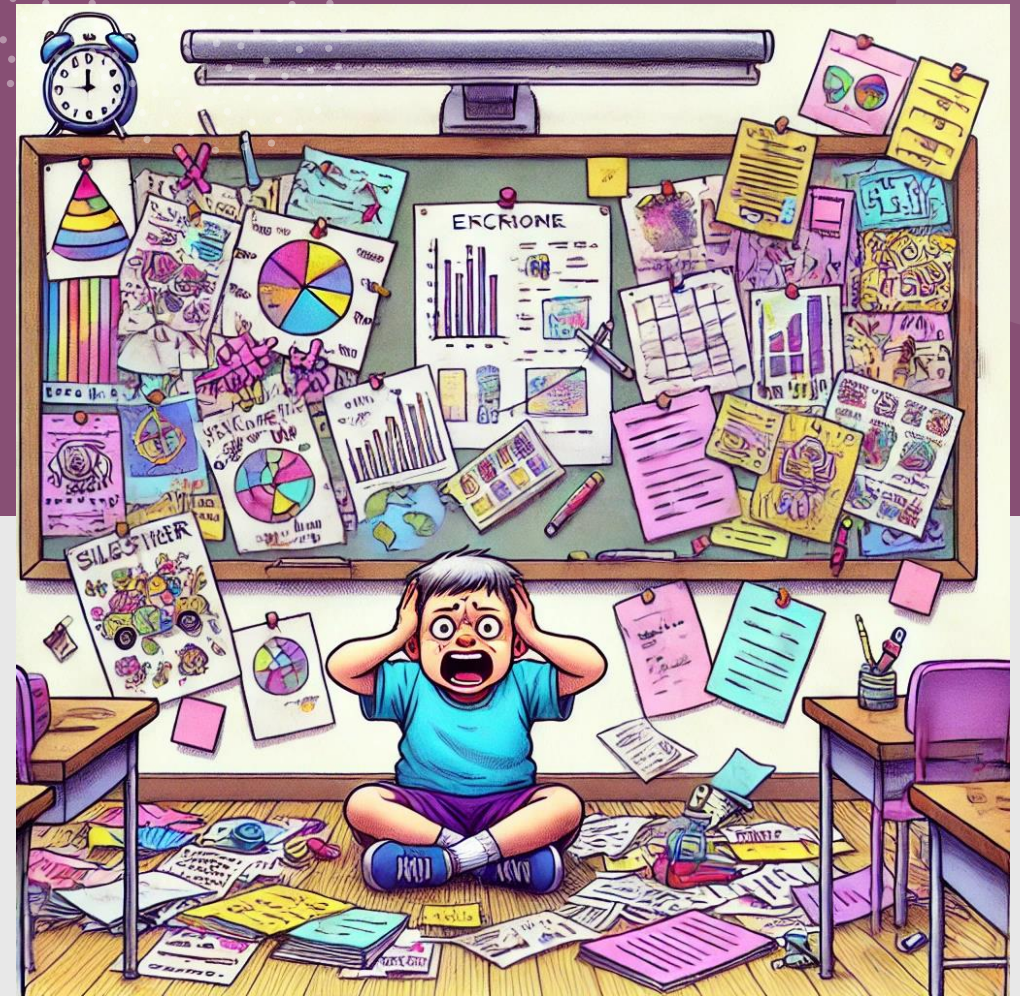
Gustatory and Olfactory

- Some children are under responsive and some are over-responsive
- Over-responsive children may be selective with textures, tastes and smells
- They may feel sick at a smell of certain food and can become distressed by smells such as air fresheners or perfume.
- Under-responsive children may seek additional feedback e.g. spicy food, strong smells



Visual System (Sight)

- **Hypersensitivity (Over-Responsive):**
 - Squints, covers eyes, or complains about bright lights (even in normal lighting conditions).
 - Avoids visually busy environments (e.g., walls covered with posters, cluttered classrooms).
 - Overreacts to sudden movements or visual changes (e.g., movement of other students).
 - Becomes overwhelmed with too many visual stimuli during tasks (e.g., crowded worksheets).
 - Displays difficulty focusing.
 - Avoidance of eye contact.



Visual hyposensitivity (Under- Responsive):

- Appears uninterested in visual details or objects (e.g., not noticing changes in the environment).
- May seek intense visual stimulation by staring at lights, flicking fingers near the eyes, or watching spinning objects.
- Has difficulty reading or following along with visual instructions.
- May prefer very brightly coloured or high-contrast items.
- Slow response to visual stimuli.
- Misses visual information.
- May appear bored, fidgety or disconnected.

Visual Motor Integration

Challenges with Visual-Motor Integration

- Children may have trouble integrating what they see with how they move, impacting activities like:
- Handwriting
- Copying notes from the board
- Using scissors or engaging in arts and crafts
- Participating in sports or activities requiring hand-eye coordination

Impact on Reading and Learning

- Visual needs can also influence reading ability. Children with difficulties in visual processing may experience:
- Difficulty tracking text across a page
- Fatigue from reading for extended periods
- Problems with letter or word recognition
- Reduced comprehension of visually complex materials, such as graphs or charts



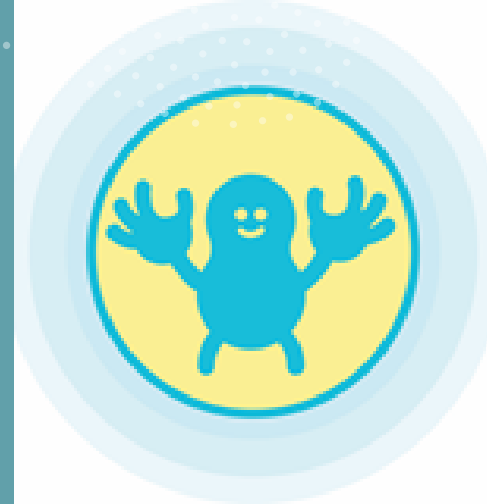
Touch

Protection: Our skin has receptors within it that respond to pain, temperature and light touch.

- This alerts us to potential threats and allows us to react appropriately.

Discriminative

- Through touch we gain information about objects and our environment



Over sensitive to touch.

- Avoidance of messy play activities
- Dislikes physical touching, especially light, unpredictable touch
- Dislikes crowds.
- Dislikes certain texture of clothes and labels
- May dislike certain foods due to texture.
- May dislike brushing teeth and hair or having haircuts.
- Responds with alarm when face/body is washed
- May avoid textures such as sand on a beach, sunscreen and moisturiser
- If touch is perceived as a threat, they may act with physical or verbal aggression or avoid situations - can feel rejecting to caregiver



Under Sensitive to Touch/ poor tactile discrimination

- Has messy face and hands and doesn't seem to notice.
- Doesn't know when they are being touched, bumped into.
- Leaves clothing twisted on their bodies and don't seem to notice.
- Difficulties manipulating pencils, scissors etc.
- Don't react to painful experiences.
- Craves touch, may touch constantly or indiscriminately
- Regular bumps into doors, tables chairs.



What is vestibular?

Located in the Inner Ear-

- Activated through movement and changes in head position.
- Provides info on where our body is in space, and whether we or our surroundings are moving.
- Tells us about direction and speed of movement.
- Automatically coordinates movements of eyes, head and body.
- Important in maintaining muscle tone, coordinating two sides of body and holding head up against gravity.



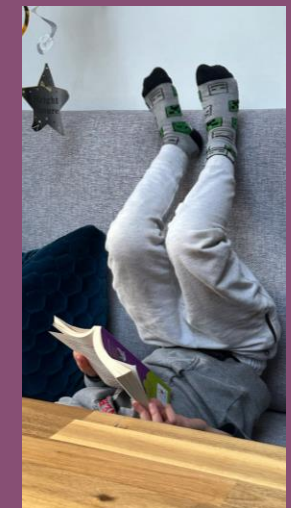
Vestibular Processing (over-responsive)

- Avoids play apparatus or fast-moving playground equipment.
- Hesitates or holds on whilst walking downstairs.
- Gets dizzy very easily.
- Gets car sick on trips.
- Dislike of fairground rides.
- Fearful of jumping, struggles with going up/ downstairs, struggles with climbing, dislikes swinging and will avoid or struggle on PE apparatus.



Vestibular Processing (under-responsive)

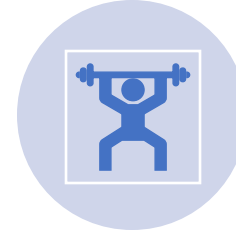
- Moving in their seats or getting out of their seats
- Poor sitting posture/ slumped posture
- Low muscle tone and poor balance skills, therefore P.E./ sport activities are challenging
- Often stumbles and falls.
- Difficulty co-ordinating both sides of the body, lacks hand dominance, does not cross midline
- Love of fast and moving equipment – without becoming dizzy.
- Seeks positions that activate the system such as sitting with head upside down
- Could also be a sign of dysregulation- flight survival response- does this decrease if child feels safe and secure?



Proprioception



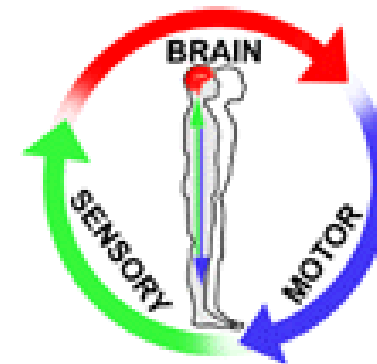
- Provides information about where a certain part of the body is and how it is moving.
- Allows automatic adjustment of body and skilful manipulation.
- Allows you to skilfully guide arms and legs without having to observe actions.
- Proprioceptive activities help calm the nervous system and help with oneself regulation.
- Tells us where our body is in space and what it is doing even when you're not looking at it.



MUSCLES AND JOINTS-

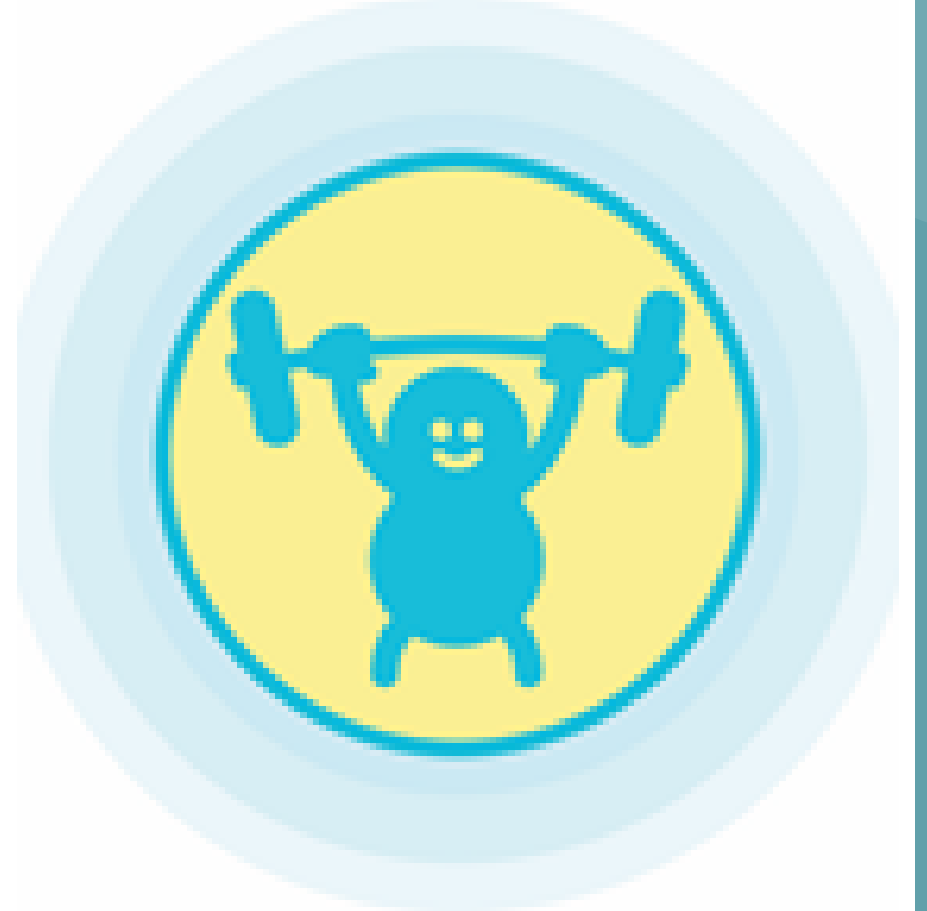


ACTIVATED BY MUSCLES
CONTRACTIONS AND
MOVEMENTS



Proprioception

- Frequently falls over/ bumps into things.
- Difficulty getting dressed.
- Very fidgety/cannot sit still or don't attain a good posture.
- Often drop things / knock things over.
- Seeks out jumping, bumping, and crashing activities.
- Kicks his/her feet on floor or chair while sitting at desk/table.
- Bites or sucks on fingers.
- Chews on pens, water bottle, clothing etc.
- Frequently cracks his/her knuckles.
- Loves to be tightly wrapped in many or weighted blankets.
- Difficulty grading movement/ misjudges force.
- Struggles with bottom wiping.



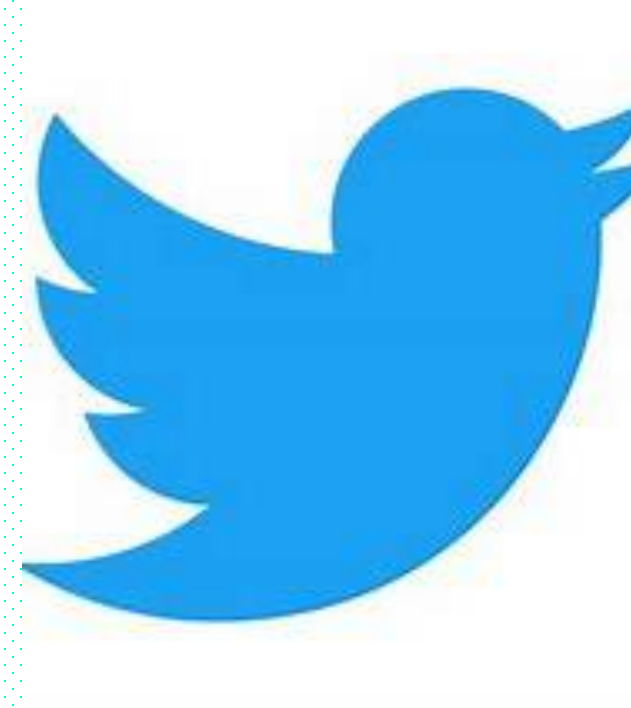
Interoception: how do I feel?

- Is our perception of what is going on inside our bodies.
- It's responsible for feelings of hunger, thirst, sickness, pain, toileting, tiredness, temperature, itch, and other internal sensations.
- Also associated with our sense of well-being, mood, and emotional regulation.



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www.childrensensorytherapy.co.uk

office@childrensensorytherapy.co.uk

0115 6713722

I N T H I S S P A C E
WE ARE CHILD FOCUSED
WE CONNECT NOT CORRECT
WE UNDERSTAND BEHAVIOUR IS COMMUNICATION
WE BELIEVE IN CO-REGULATION
THAT KIDS NEED THE ADULTS IN THEIR LIVES TO STAY REGULATED
WE EMPATHISE
WHEN SOMEONE IS FINDING THINGS HARD
WE BELIEVE IN ACCEPTANCE
RATHER THAN JUDGMENT
WE BELIEVE RELATIONSHIPS
BUILD RESILIENCE
WE BELIEVE IN WORKING THINGS OUT
TOGETHER
BY STAYING CURIOUS
WE BELIEVE IN MAKING FAMILIES STRONGER
WE BELIEVE IN SHARED JOY AND PLEASURE AND THE JUST-RIGHT CHALLENGE
WE SEE YOU • WE HEAR YOU • WE ARE WITH YOU

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