

SENSORY PROCESSING TOOLKIT

A resource to support children with sensory processing differences

HANNAH WHATELY-SMITH



CONTENTS



1. HOW TO USE
2. MEET THE SENSES
3. UNDERSTANDING SENSORY PROCESSING DIFFERENCES
4. BUILDING MY SENSORY PROFILE
5. SENSORY DIFFERENCES: A FRAMEWORK FOR DISCUSSION
6. DUNN'S MODEL OF SENSORY PROCESSING - INTRODUCTION
7. DUNN'S MODEL OF SENSORY PROCESSING - BLANK
8. MY SENSORY SUMMARY
9. SENSORY ACTION PLAN
10. RESOURCES AND FURTHER LEARNING

HOW TO USE



1. RECOGNISE.

Identify when a child's sensory needs are having a significant impact on their learning, wellbeing and daily life.

2.INCLUDE

Complete **Building My Sensory Profile** with the child either at home or school.

IMPORTANT: The voice of the child **must** be central to **all** discussions.

3. GATHER.

Arrange to meet with parents/carers, with input or evidence from external professionals if appropriate, to complete the **Framework for Discussion.**

4.BUILD

Using the information gathered, use the blank **Dunn's Model** template to begin to build a **Sensory Summary** for the child.

6.DEVELOP

Use the information to develop a **Sensory Action Plan** for the child.

7.REVIEW

Review the impact of the plan on a regular basis with the child, their parents/carers and other adults who work with them.

Adapted from: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Meet Our Senses

Sensory System	Location	Details
Vestibular (balance) 	Inner ear	Helps you understand balance and movement. Provides information about where our body is in space and whether or not we or our surroundings are moving.
Tactile (touch) 	Skin	Helps you feel touch, pressure, pain, and temperature.
Proprioception (body awareness) 	Joints, muscles, ligaments, tendons	Helps you understand where your body is and how it moves. Helps decide the force needed to do activities.
Olfactory (smell) 	Nose	Helps you recognise different smells.
Gustatory (taste) 	Tongue	Helps you recognise different tastes.
Visual (sight) 	Eyes (retina)	Helps you see people and objects.
Auditory (hearing) 	Inner ear	Helps you hear different sounds.
Interoception (Internal state) 	Whole body and brain	Helps you understand how your body feels on the inside.

Adapted from: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

UNDERSTANDING SENSORY PROCESSING DIFFERENCES

We may not always notice how we are responding to our environment. Sometimes we seek sensory input because it helps us feel calm or focused. At other times, we may move away from input that feels too intense or overwhelming.

All children respond to sensory input differently. For some, this has little impact on daily life. For others, sensory differences can affect how they feel, think, behave, and respond, which may impact learning, play, self-care, and relationships.

Patterns in sensory responses can often be identified. A structured approach can help adults understand these patterns and plan support that helps the child take part more fully in learning and social activities.

Some approaches use "desensitisation" to describe gradual exposure to sensory input a child finds difficult. However, this is not always appropriate and can be very damaging. Sensory input can feel genuinely overwhelming, and repeated exposure may increase anxiety, shutdowns, or burnout.

Current approaches instead focus on understanding the child's sensory profile and adapting the environment. The aim is to reduce distress, support regulation, and offer choice and control.

THE GOAL IS NOT TO MAKE CHILDREN "TOLERATE" DIFFICULT SENSORY ENVIRONMENTS, BUT TO CREATE SAFE, SUPPORTIVE SPACES WHERE THEY CAN LEARN, PLAY, AND BUILD RELATIONSHIPS SUCCESSFULLY.

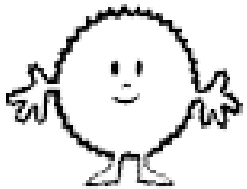
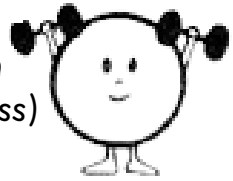


Building my sensory profile

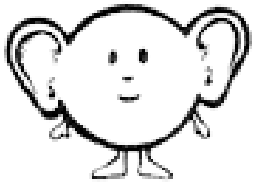
My Voice

Family Voice

Name:

Sensory System	My Preferences Experiences I like	My Challenges Experiences I don't like
Tactile (Touch) 		
Vestibular (Movement & balance) 		
Proprioception (Body awareness) 		

Adapted from: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Auditory (Hearing) 		
Oral (Including taste) 		
Olfactory (Smell) 		
Visual (Sight) 		
Interoception (Internal state) 		

Adapted from: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf



Sensory differences: A framework for discussion

Child's name		DOB		Setting	

Completed by					
Name		Relationship to child		Date	
Name		Relationship to child		Date	

The framework for discussion is designed to be used by people who know the child well (school and home). Children may present with different sensory behaviours in different environments so it's important to consider the responses over a range of environments. It's important to consider that children may be able to tolerate sensory input if they are in a highly motivating situation and general wellbeing can affect a person's ability to tolerate sensory information.

Please discuss the statements below, tick the box that best fits the child and add comments as appropriate.

Any sensory responses are to be considered in light of typical developmental patterns.

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - TACTILE (touch) 		Usually	Sometimes	Rarely	**Comment / notes**
Distressed when is being, or needs to be, changed	1				
Reacts strongly to light touch or unexpected touch	2				
Appears fearful of, or avoids standing in close proximity to other people or peers (especially in lines)	3				
A raindrop, water from the shower, or wind blowing on the skin may produce adverse and avoidance reactions	4				
May overreact to minor cuts, scrapes etc.	5				
Avoids certain textures of material or avoids wearing new clothes	6				
Avoids/dislikes "messy play", i.e., sand, mud, water, glue, glitter, play dough, slime, shaving cream/funny foam etc. or needs to wash hands immediately/frequently	7				
Becomes distressed with personal hygiene action e.g. having face washed having hair, toenails, or fingernails cut	8				
Is a picky eater, only eating certain tastes and textures; mixed textures tend to be avoided as well as hot or cold foods; resists trying new foods	9				
Chooses to tip toe walk (tactile / proprioception)	10				
May seek out touch, needs to touch everything and everyone (esp. messy play / vibration or intense sensations)	11				

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - TACTILE (touch) 		Usually	Sometimes	Rarely	**Comment / notes**
Is not aware of being touched/bumped unless done with extreme force or intensity and/or not bothered by injuries	12				
May not be aware that hands or face are dirty or feel his/her nose running	13				
May pinch or bite self or bang own head	14				
Thoroughly enjoys and seeks out messy play	15				
Has difficulty with fine motor tasks such as buttoning, zipping, and fastening clothes, difficulties using scissors, crayons or cutlery	16				
May not be able to identify which part of their body was touched if they were not looking	17				
Continues to mouth objects to explore them even after age two	18				
May not be able to identify objects by feel, uses vision to help; such as, reaching into backpack or desk to retrieve an item	19				
What touch experiences does the child enjoy / like?					

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - VESTIBULAR (balance) 		Usually	Sometimes	Rarely	**Comment / notes**
Avoids/dislikes playground equipment; i.e., swings, ladders, slides, or roundabouts	1				
Prefers sedentary tasks, moves slowly and cautiously, avoids taking risks	2				
Avoids/dislikes lifts and escalators; may prefer sitting while they are on them or, actually get motion sickness from them	3				
Struggles with heights, even the height of a curb or step, including going up or down stairs or walking on uneven surfaces	4				
Avoids being upside down, sideways or backwards; will strongly resist getting hair washed over the sink	5				
Startles if someone else moves them; i.e. pushing his/her chair closer to the table	6				
May be fearful of, or have difficulty riding a bike, jumping, hopping, or balancing on one foot	7				
In constant motion, can't seem to sit still	8				
Seeks out fast, spinning, and/or intense movement experiences e.g. Always jumping on furniture or trampolines,	9				
Likes getting into upside down positions, loves to swing as high as possible and for long periods of time	10				
Likes sudden or quick movements, such as, going over a big bump in the car or on a bike	11				

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - VESTIBULAR (balance) 		Usually	Sometimes	Rarely	**Comment / notes**
Frequently slumps, lies down, and/or leans head on hand or arm while working at his/her desk	12				
Poor gross motor skills; jumping, catching a ball, jumping jacks, climbing a ladder etc.	13				
Shows poor body awareness; bumps into things, knocks things over, trips, and/or appears clumsy	14				
Difficulty catching him / herself if falling	15				
Tires easily	16				
Often sits in a "W sit" position on the floor to stabilize body	17				
Difficulty simultaneously lifting head, arms, and legs off the floor while lying on stomach ("superman" position)	18				
Has difficulty licking an ice cream cone, drinking from a cup	19				
Seems to be unsure about how to move body during movement, for example, stepping over something	20				

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - PRIOPRIOCEPTION (body awareness) 		Usually	Sometimes	Rarely	**Comment / notes**
Loves "rough and tumble"	1				
Loves/seeks out "squishing" activities, enjoys bear hugs and squeezing into small places	2				
Bites or sucks on fingers and/or frequently cracks his/her knuckles	3				
Prefers bedding and/or clothes to be as tight as possible	4				
Kicks his/her feet on floor or chair while sitting at desk/table	5				
Stomps feet when walking	6				
Seeks out jumping, bumping, and crashing activities	7				
Grinds his/her teeth throughout the day	8				
Loves pushing/pulling/dragging objects	9				
Chews on objects and clothing	10				

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - PRIOPRIOCEPTION (body awareness) 		Usually	Sometimes	Rarely	**Comment / notes**
Seems to do everything with too much or too little force; i.e., walking, slamming doors, pressing things too hard, slamming objects down	11				
Misjudges how much to flex and extend muscles during tasks/activities (i.e. putting arms into sleeves or climbing or turning door handles)	12				
Misjudges the weight of an object, such as a glass of juice, picking it up with too much force sending it flying or spilling, or with too little force and complaining about objects being too heavy	13				
What proprioceptive experiences does the child enjoy / like?					

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - AUDITORY (hearing) 		Usually	Sometimes	Rarely	**Comment / notes**
Distracted by sounds not normally noticed by others background environmental sounds; i.e. humming of lights or refrigerators, fans, heaters, or clocks ticking, lawn mowing, outside building work, sirens.	1				
Fearful of some sounds	2				
Startles easily or distracted by loud or unexpected sounds	3				
Frequently asks people to be quiet; i.e. stop making noise, talking, or singing	4				
May refuse to go to noisy places	5				
May struggle to tolerate certain pitches / tones of voice / accents	6				
Talks self through a task, often out loud	7				
Appears confused about where a sound is coming from	8				
Appears oblivious to certain sounds	9				
Loves excessively loud music or TV	10				
Displays a need to make own background noise / sounds in some environments	11				

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - AUDITORY (hearing) 		Usually	Sometimes	Rarely	**Comment / notes**
Often does not respond to verbal cues or to name being called	12				
What auditory experiences does the child enjoy / like?					

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - ORAL 		Usually	Sometimes	Rarely	**Comment / notes**
Has difficulty with sucking, chewing, and swallowing; may choke or have a fear of choking	1				
Will only eat foods at extremes of temperature i.e. very hot or cold foods	2				
Refuses to lick envelopes, stamps, or stickers because of their taste	3				
Dislikes or complains about toothpaste and mouthwash	4				
Avoids seasoned, spicy, sweet, sour or salty foods; prefers bland foods	5				
May lick, taste, or chew on inedible objects, or seeks vibration objects near mouth	6				
Prefers foods with intense flavour; i.e., excessively spicy, sweet, sour, or salty	7				
Excessive drooling past the teething stage	8				
What taste/texture/sensation experiences does the child enjoy / like?					

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - OLFACTORY (smell) 		Usually	Sometimes	Rarely	**Comment / notes**
Refuses to eat certain foods because of their smell	1				
Tells other people (or talks about) how bad or funny they smell	2				
Reacts negatively to, or dislikes smells which do not get noticed by other people, e.g. perfume or aftershave, household or cooking smells, or personal hygiene smells	3				
Decides whether he/she likes someone or some place by the way it smells	4				
Has difficulty discriminating odours or does not notice odours that others usually complain about	5				
Makes excessive use of smelling when introduced to objects, people, or places i.e. uses smell to interact with objects	6				
What smell experiences does the child enjoy / like?					

Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - VISUAL 		Usually	Sometimes	Rarely	**Comment / notes**
Sensitive to bright lights and colours; will squint, cover eyes, cry and/or get headaches from the light	1				
Easily distracted by other visual stimuli in the room; i.e., movement, decorations, toys, windows, doorways etc.	2				
Prefers to use peripheral vision	3				
Seeks out dark spaces	4				
Has difficulty in bright colourful rooms or a dimly lit room	5				
Has difficulty telling the difference between similar printed letters or figures; i.e., p & q, b & d, + and x, or square and rectangle	6				
Has difficulty locating items among other items; i.e. papers on a desk, clothes in a drawer, items on a shelf, or toys in a box, differences in pictures, words, symbols, or objects	7				
Often loses place when working especially if copying from a book or the board	8				
Has difficulty telling the difference between different colours, shapes, and sizes	9				
Difficulty with jigsaw puzzles, copying shapes, and/or cutting/tracing along a line	10				

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

Sensory system - VISUAL



Additional information:

Source: https://localoffer.northlincs.gov.uk/pdf/Sensory-Toolkit-Aug-2019.pdf

DUNN'S MODEL OF SENSORY PROCESSING (1997)

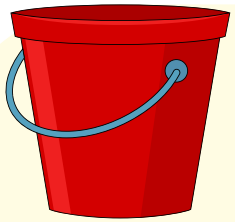
Widely used in education and occupational therapy to support inclusive practice.

IT HELPS US:

- Understand sensory needs more clearly
- Understand how people respond to sensory information
- Reduce distress in the environment
- Plan supportive strategies
- Improve participation in learning, play, and daily life

Based on two main ideas:

1. NEUROLOGICAL THRESHOLD



HIGH

High threshold (big "bucket"): needs lots of input to notice or respond
Low threshold (small "bucket"): notices sensory input very quickly



LOW

2. BEHAVIOURAL RESPONSE



PASSIVE



ACTIVE

How a person responds to sensory input.
Active: they try to manage it (seek or avoid it)
Passive: they do not actively change it

DUNN'S MODEL OF SENSORY PROCESSING

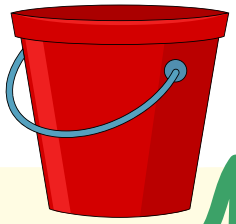
By combining these two ideas, we get four sensory patterns:

High threshold + passive response

- May not notice sensory input easily
- Can miss instructions or not notice what is happening around them
- Needs stronger or repeated input to respond

High threshold + active response

- Actively looks for sensory input
- Enjoys movement, noise, texture, or visual stimulation
- May need lots of input to stay regulated



HIGH

Low Registration

Sensory Seeking



PASSIVE

ACTIVE



Sensory Sensitivity

Sensory Avoiding

LOW



Low threshold + passive response

- Notices sensory input very easily
- Can become overwhelmed or distracted in busy environments
- May not always take action to reduce the input

Low threshold + active response

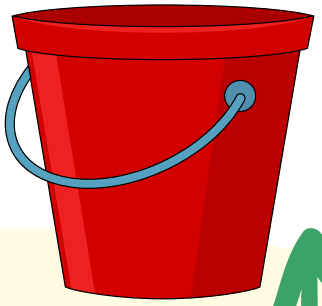
- Notices sensory input quickly and finds it overwhelming
- Actively avoids noise, crowds, textures, or bright environments
- May use strategies like headphones or leaving busy spaces

IMPORTANT THINGS TO REMEMBER:

- Children will often show more than one pattern, depending on context
- The profile can change with stress, tiredness, or environment
- It should be used as a discussion tool, not a fixed label
- It works best when combined with observation and lived experience, not as a standalone assessment

DUNN'S MODEL OF SENSORY PROCESSING

Name:



HIGH

Low Registration

Sensory Seeking





PASSIVE

ACTIVE

Sensory Sensitivity

Sensory Avoiding

LOW



BLANK FOR YOUR OWN USE

Name:

My Sensory Summary

Things I like

Things I don't like

Signs I am finding things hard

Signs I need some help

Things that help me



Name:

Sensory Action Plan

Changes to the environment needed:

Sensory Focus Area	Activity Choices	Frequency