

# Sensory Processing Differences

*Support from the Working Together Team - training, assessment  
tools and Positive Sensory Profiling*

# Sensory Processing and Integration

- ▶ Our sensory processing and integration forms the ***foundations for our learning and development*** and how we understand and respond to the world.
- ▶ It is estimated that up to 95% of autistic pupils experience sensory processing differences. The theory of sensory processing proposes that it is an ***automatic process of the brain*** that organises input from our senses and attributes meaning to what is experienced (Ayres, 1972).
- ▶ Support needs to begin by first ***identifying the Sensory Preference and Differences*** of every unique profile

# Lived experience of sensory differences



The school bells physically hurt me and went off every hour every day. Can't concentrate on GCSE's when anxiously anticipating the bells.

My daughter doesn't eat at school on a Friday (it's fish & chip day). She can't cope with the smell so won't go in the dinner hall, says the smell goes through the whole school and makes her feel sick & unable to learn.

The first class after lunchbreak was zone out time. I was not aware of this at the time. Sensory overload from a noisy, unstructured 'break' that was too long to tolerate.

I have trouble filtering out auditory information. When I would take tests, if a student near me had a cold, every time they sniffed I got distracted. I began to just sit & wait until everyone was finished & only then would I take my test. It affected my grades.

Any lesson that followed PE was a write-off for me as I couldn't focus on anything thanks to having to dress quickly after showering. All I could feel was my damp skin, all I could smell was spray deodorant (even worse after swimming when the chlorine smell surrounded me!)

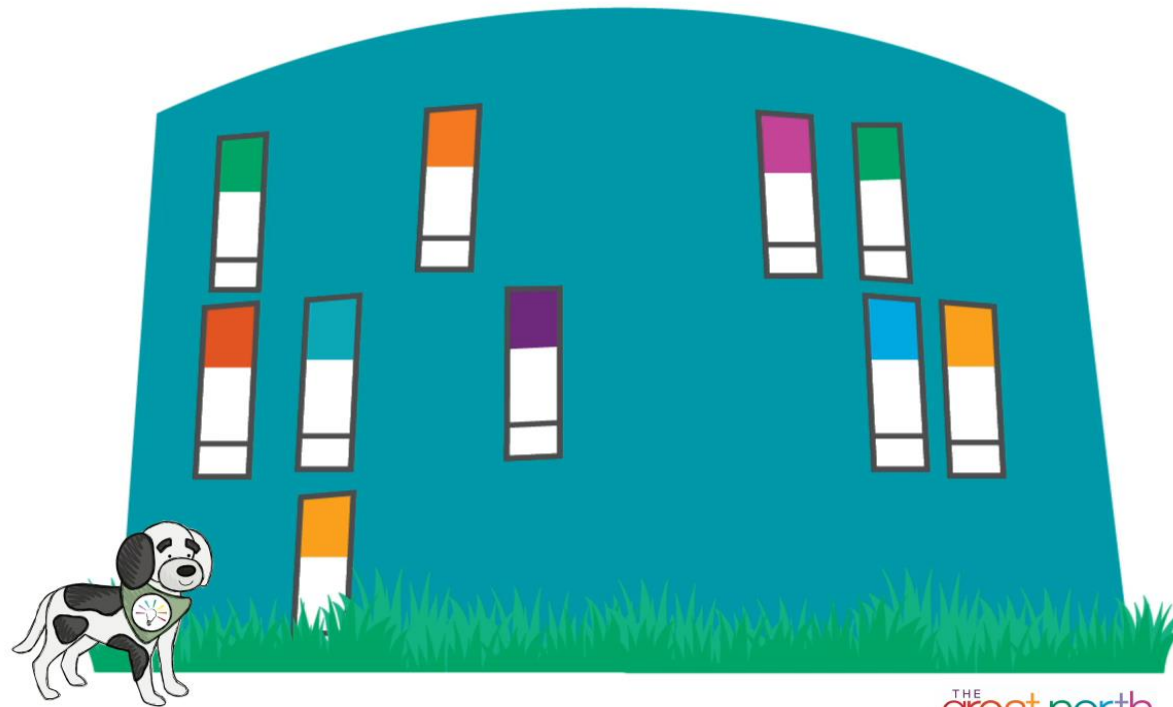
Her sensory needs impact her ability to wear the uniform required. She can't tolerate the shirt, won't wear anything around her waist, doesn't like socks/coats/jumpers....Uniform issues will literally stop my child from attending education.

# The Sensational Thinking Project

<https://youtu.be/1BGB4vJP5c8>



The Newcastle upon Tyne Hospitals  
NHS Foundation Trust



THE **great north**  
CHILDREN'S HOSPITAL  
FOUNDATION  
Newcastle upon Tyne Hospitals NHS Charity (reg. 1050213)



**Autism  
Education  
Trust**

Sensory overload can be physically painful and very frightening. It can lead to high levels of stress and anxiety, and sometimes to 'meltdowns' and a strong need to remove themselves from the situation to help themselves feel safe.

Not enough sensory input can lead to seeking behaviours and impact on ability to learn.

The learning environment needs to be adapted to better meet the needs of autistic pupils. We need to carefully observe the pupil in a range of activities and environments to understand the best way to achieve this.

# Sensory Integration Therapy

**Ayres Sensory Integration Intervention/Therapy (ASI)** - aims to *change* a child's sensory processing through '*direct, intensive and therapeutic input*'

- ▶ Delivered by an Occupational Therapist who has completed certified postgraduate training.
- ▶ The approach requires specialist equipment and a specific physical environment

**Research into the effectiveness of ASI suggests:**

(Case-Smith et al, 2015, NIHR, NICE)

- ▶ '*ineffective*' for long term outcomes
- ▶ '*inadequate*' in meeting children's day-to-day longer term sensory needs

# Performance or Goal-Orientated Sensory Approaches

This approach aims to meet the sensory processing needs of the individual, rather than trying to change them, and enable functional activity performance and participation (Novak and Honan 2019, Dunn et al 2012)

- Identifying sensory strengths and differences
- Adapting the environment
- Modifying the task
- Developing strategies to enable the individual to recognise and manage their own sensory needs

*This approach supports a better 'fit' between the CYP, their environment and the task (Rodger et al 2010)*

# WTT support - whole setting approach

- Autism training from Autism Education Trust (AET) has a focus on "Enabling Environments" which includes sensory and anxiety.
- AET Good Autism Practice (GAP) module provides resources to collect information on sensory preferences and differences and carrying out environmental audits.
- WTT Bespoke training on "Autism and Sensory Integration Differences", including 'profiling'
- Training and coaching settings on the use of a sensory circuit approach and sensory adaptations in the classroom.



# WTT support - personalised support

- ▶ Schools and families are asked to complete our **sensory profiles of behaviour**  
CYP questionnaire, for use where appropriate
- ▶ Any WTT or setting **observations** can also inform this process
- ▶ Building a **positive sensory profile** with school and family which informs support for that CYP
- ▶ There is a **Strategy Pack** which provides guidance and suggestions of strategies to support different sensory systems (hyper/hypo presentations)

# Sensory Questionnaire (WTT)




## Vestibular - movement, balance and orientation

<u>Hyper-sensitivity (over-responsive)</u>	<u>Hypo-sensitivity (under-responsive)</u>
<ul style="list-style-type: none"><li>_ Avoids activities that require both feet off the ground, fears being 'off balance' e.g. PE lessons</li><li>_ Unsettled (easily-nauseated) after movement experience.</li><li>_ Holds head upright while leaning back or bending over.</li><li>_ Poor negotiation over uneven ground.</li><li>_ Hesitation on steps / equipment.</li><li>_ May try to control or manipulate events to avoid stressful sensations.</li><li>_ Often seeking physical support from adults</li><li>_ Dislikes sudden movement</li><li>_ Dislikes changes of body position</li></ul>	<ul style="list-style-type: none"><li>_ Difficulty sitting (especially 'still')</li><li>_ Constantly moving/ loves spinning / being upside down.</li><li>_ May have low muscle tone (muscles and joints seem too soft/ floppy)</li><li>_ W sitting on the floor.</li><li>_ Slumps / leans in chair - poor balance</li><li>_ Rocks self or moves head back and forth whilst sitting.</li><li>_ Becomes over-excited after a movement activity.</li><li>_ Lacks hand dominance</li><li>_ Actions do not cross midline of body</li><li>_ Difficulty following a moving object</li><li>_ Trouble holding head up whilst sitting.</li><li>_ Self-spins for sustained periods without getting dizzy</li><li>_ May rock the head from side to side to maintain attention</li></ul>

# Sensory assessment checklist

(based on the sensory profile checklist from Bogdashina, 2003 and included in the IDP autism spectrum)

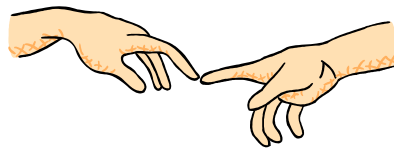
Hi, there are **no right or wrong answers** to the following questions. We would like to know what you are good at, what you like to do and if there is anything that makes you feel uncomfortable, worried or cross. We can work together then to make sure you do **more of what you are good at** and we know how to **help you when things feel tricky!**

Prompts	 OK or Yes	 Not OK or No	 Sometimes Don't know!	Comments / explanations / support in place or needed
When things change I feel OK				
Classroom lights are OK				
Lights at home are OK				
Flashing lights - Ok or not OK?				
I like coloured lights (e.g. on toys)				

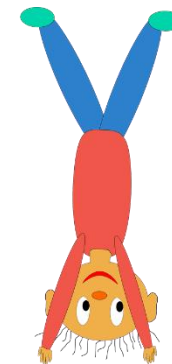
# Sensory Processing



**Sound**



**Touch**



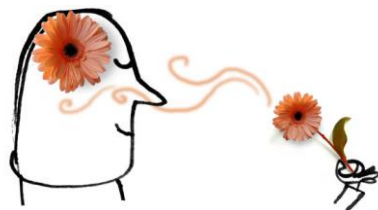
**Vestibular**

TASTE
Salty
Sweet
Umami
Sour
Bitter

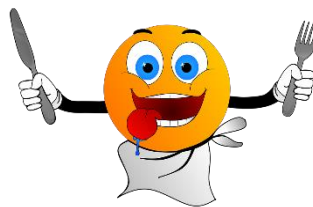


**Visual**

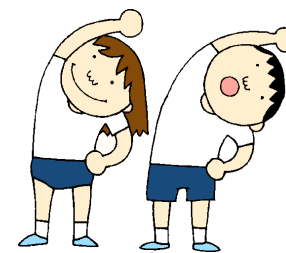
**Taste  
(Gustatory)**



**Smell  
(Olfactory)**




**Interoception**



**Proprioception**

## Sensory environment checklist

This sensory checklist is to help practitioners to assess and create an environment that enables the participation of pupils with autism. It does not cover all aspects, but gives ideas on the ways in which a setting might be altered if pupils experience sensory processing difficulties and find it hard or very anxiety-provoking to tolerate certain sensations or situations.

Sense	Good practice and evidence to look for	Current situation	Action needed
<b>General sensory issues</b>	Sensory profiles for individual pupils are completed and used to identify strategies to meet their sensory needs. Practitioners should have agreed strategies in place if a pupil is experiencing sensory overload e.g. there is a quiet room or space available.		
<b>Visual</b> 	Lighting is suitable for pupils with autism e.g. fluorescent lights are regularly checked as flickering lights can be very disturbing The room is orderly and not cluttered so that pupils can make sense of the environment e.g. materials and resources are clearly labelled with a picture or symbol.		
<b>Taste</b>	Practitioners are aware of individual differences		

## Sensory Ladder

With a teacher or parent/carer, go through the following lists to identify your feelings, actions and how to make things better at each stage of 'meltdown'. Some examples have been added but you can delete any and/or add your own.

Meltdown		
I am feeling: <ul style="list-style-type: none"> <li>Overwhelmed</li> <li>Angry</li> <li>Confused</li> <li>I can't identify my feelings</li> </ul> I might say: <ul style="list-style-type: none"> <li>"I've had enough"</li> <li>"Go away!"</li> </ul>	How I might act: <ul style="list-style-type: none"> <li>Say mean things</li> <li>Swear</li> <li>Scream</li> <li>Pace around</li> <li>Throw things</li> <li>Break things</li> <li>Hit my head</li> <li>Bite</li> <li>Spit</li> <li>Shake</li> </ul>	Strategies: Stay with me but allow me some space OR Let me stand outside the room (I won't run off) Wait for 5 minutes then I can: <ul style="list-style-type: none"> <li>Use an essential oil on my wrist</li> <li>Paced breathing, in for 4 out for 6</li> <li>Spray water mist on my own face</li> <li>Suck a mint</li> </ul>

## SMELL



Pointer	Evidence to look for	Current Situation	Possible action (if needed)
Can you smell anything in the classroom?	Art materials such as paint or glue.		
	Perfume or deodorant from people.		
	How other people smell.		
Can you smell anything when you are in the corridors or hall?	Toilets.		
	The smell of cooking/food from the hall.		

# How do behaviours fit with age/developmental stage?

## Tactile - touch

<u>Hyper-sensitivity (Over-responsive)</u>	<u>Hypo-sensitivity (Under-responsive)</u>
<ul style="list-style-type: none"><li>__ Avoids affectionate touch (from children enjoys adult though)</li><li>__ Is agitated by seams in clothing, tags or waistbands.</li><li>__ Avoids messy play</li><li>__ Dislikes nail trimming/hair cutting/ hair brushing/ tooth brushing</li><li>__ Limited food preferences</li><li>__ Sensitive to food textures</li><li>__ Excessively ticklish</li><li>__ Avoids standing close to others.</li><li>__ Startles easily when touched unexpectedly</li><li>__ Over reacts to minor injuries</li><li>__ Won't wear jumper/coat</li><li>__ Dislikes long/short sleeves</li></ul>	<ul style="list-style-type: none"><li>__ Always touching others-craving touch</li><li>__ May prefer to be without clothes/ barefoot.</li><li>__ Doesn't seem to notice messy hands or face.</li><li>__ Touches everything</li><li>__ May put too much food in mouth.</li><li>__ Unaware of light touch.</li><li>__ Doesn't seem to notice minor injuries/ drools/ doesn't wipe a runny nose.</li><li>__ Unintentionally rough with pets/ other children.</li><li>__ Difficulty with fine motor skills, manipulating tools and objects (see fine motor section)</li><li>__ Examines everything by bringing it to their mouth and eyes</li><li>__ Untidy/ messy dresser.</li><li>__ Shoes on the wrong feet often.</li><li>__ Engages in self-stimulatory/ self-injurious behaviour</li><li>__ Needs to be wrapped up tight to sleep</li><li>__ Clothing can be twisted on their body and they don't seem to notice.</li><li>__ Regularly bumps into things.</li></ul>

Positive Sensory Profile for:

Date:

**Sensory Preferences** (to manage the current situation)

What does the child 'choose' to do (behaviours) that will either be making them feel 'better' (calmer/regulated) or that they get a lot of pleasure out of?

No-one chooses to engage in activity (repeatedly) that makes them feel 'worse' (more agitated, upset, overwhelmed & so on)

**Sensory Dislikes** (Difficulties/Challenges)

This section identifies the situations/expectations that the child finds 'difficult' to manage - brings confusion, increases anxiety, provokes 'physical' discomfort (e.g. sensory etc)

Photo

Other info

**Positive Sensory Programme** (using info from above)

Proactive interventions that aim to 'replicate' (wherever and whenever possible) the sensations described above.

e.g.

- 'Teaching' (& providing opportunities to practice) self-regulating techniques
- Creating a personalised sensory 'diet' - how can these necessary activities become part of the child's day?
- Targeted 'motor' circuits (Alerting, Organising, Calming) to support the whole of the social communication profile

When the child has achieved their optimum calm/alert state, their ability to 'manage' the more challenging expectations is significantly increased (building resilience)

**Sensory Support** (using info from above)

**Environment Control:**

- What 'reasonable adjustments' may be necessary to the environment to enable the child to access the above expectations more successfully?

**Individual support:**

- What specific support will the child need to manage the above challenges with increasing independence and success?

Completed by:

\*Based on Positive About Autism PSP

([www.positiveaboutautism.co.uk](http://www.positiveaboutautism.co.uk))

With information obtained from:

# Positive Sensory Profile for:

H

Date:

## Sensory Preferences

- H needs movement.
- He may rock himself or move his head back and forth whilst sitting.
- H may make his own sounds to manage the noise around him.
- Gains proprioceptive feedback through walking into others and bumping into furniture. This also helps him get a sense of the space.
- H smells and licks inedible objects.
- Always seem to be thirsty.



## Sensory Dislikes

- H will avoid affectionate touch in the school environment.
- He doesn't enjoy messy play.
- He will avoid standing close to others and may push them away if they come too close to him.
- He dislikes noisy environments.
- He is easily distracted by background noise and movement and dislikes visually busy places.

Photo

## Other info

H is still establishing hand dominance

H is unaware of having a full bladder or bowel at school and so needs to go to the toilet routinely.

H can tire easily and this impacts on his ability to manage the school environment.

## Positive Sensory Programme

- Use of weight on his pencil for writing to help H use the right amount of pressure, providing additional proprioceptive feedback.
- Allow processing time for planning and sequencing movement. In PE, support this with visual cues.
- Allow processing time for verbal instructions, before repeating / rephrasing.
- Support verbal cues with visual to aid processing.
- Support for visual tracking when reading/copying-a visual way to keep his place.
- H may focus on the detail rather than the bigger picture so additional teaching time is needed to get the concept across.
- Monitor licking of inedible objects for safety.

## Sensory Support

### Environment Control:

- Allow H to sit on a chair for class input to give more stability.
- Identify quieter times for H to access busy places such as toilets, cloakrooms etc
- H will need to remove some sensory input in order to engage in learning- consider a workstation within the classroom, working in quieter areas or at quieter times.
- Using a pop-up screen may help remove some visual stimulation.

### Individual support:

- Monitor for avoidance/refusal as this is usually a sign of something H sees to be stressful or doesn't understand.



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# Sensory circuits

- Developed in the Peterborough area by specialist OT Jane Harwood
- Short and snappy sensory motor skills programme to help set children up for a school day - to energise and settle-be ready to learn.
- Enables children to reach the level of alertness needed to focus more effectively during lessons
- Children participate in a 10-15 minute session of activities designed to improve brain processing efficiency, and they generally find that the circuit is a fun way to start the day



## **Alerting Activities**

The aim is to provide vestibular and proprioception stimulation. The activities should make the head change direction rapidly

This prepares the brain for learning

## **Organisation Activities**

This section includes activities that require motor sensory processing, balance and timing

The child needs to organise their body, plan their approach and do more than one thing at a time in a sequential order

## **Calming Activities**

These activities provide the input to ensure the child leaves feeling calm, centred and ready for the day ahead

Activities will involve deep pressure, proprioceptive input and heavy work

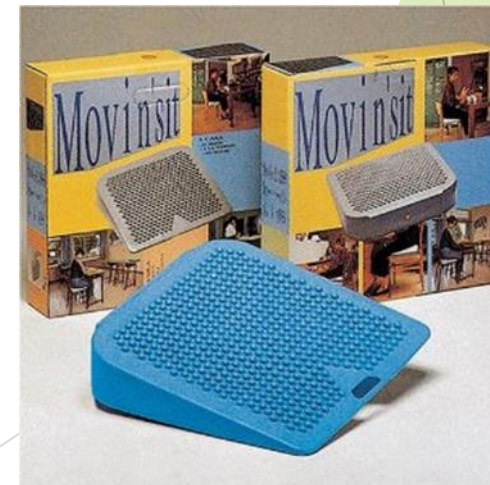
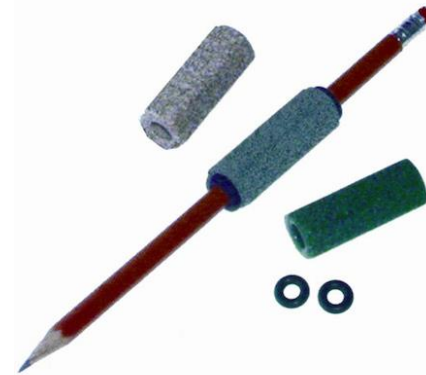




# A Sensory circuit approach

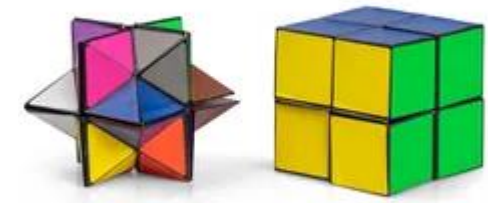
- ▶ Build in Alerting, Organising and Calming into the timetable/classroom.
- ▶ It doesn't have to be in a hall/specific room
- ▶ Can you tie it in with transitions?
- ▶ Some children will need more frequent sensory input than others.
- ▶ Explore the pupils day and look at when they start to show dysregulation. Plan input to address this proactively.

# Classroom sensory adaptations





# Calming objects



# Whole school impact

- ▶ Positive Profiling can be used for all, not just autistic pupils
- ▶ Many benefit from access to sensory circuit approach
- ▶ Environmental audits - help identify reasonable/necessary adjustments (for all)
- ▶ Further resources on WTT website, including training opportunities or to book a session for your whole setting