



# CHILDHOOD NEURODIVERSITY

UNDERSTANDING AND SUPPORTING SENSORY NEEDS

Psychology in Schools Team  
NSFT

## Confidentiality and Personal Information

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Slido will be used as our main interaction tool. We will not be able to use the Q&A function or answer raised hands.

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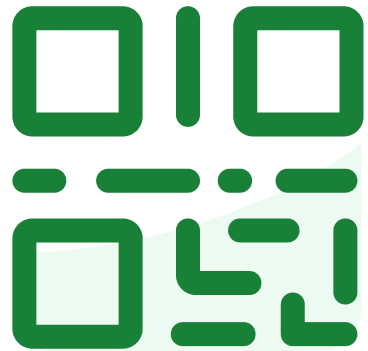
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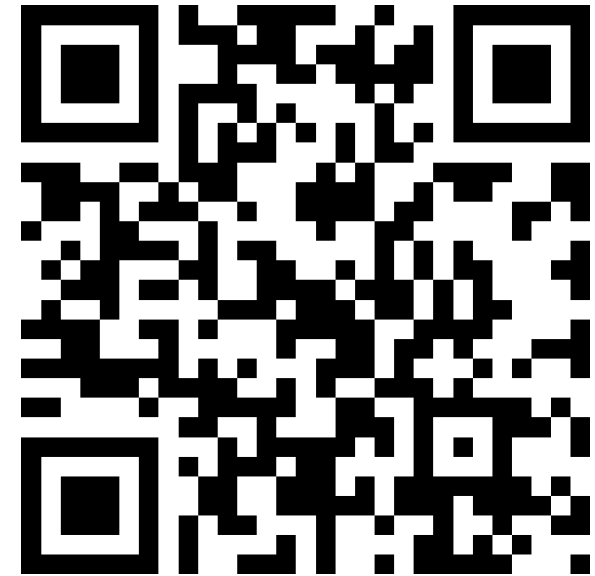
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Our workshops are recorded and uploaded to YouTube, please be aware that anything shared on Slido may be included in a publicly accessible recording.

# slido



Join at [slido.com](https://slido.com)  
#4064279



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How old is your child(ren)?

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# What stage are you at?

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# What presentation are you interested in today?

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**How would you rate your current understanding of sensory processing?**

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**How would you rate your current confidence supporting your child with their sensory needs?**

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# CHILDHOOD NEURODIVERSITY

UNDERSTANDING AND SUPPORTING SENSORY NEEDS

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# Workshop Overview

- The sensory systems
- Sensory differences
- The 'just right' state
- Strategies for sensory needs
- Resources and further support



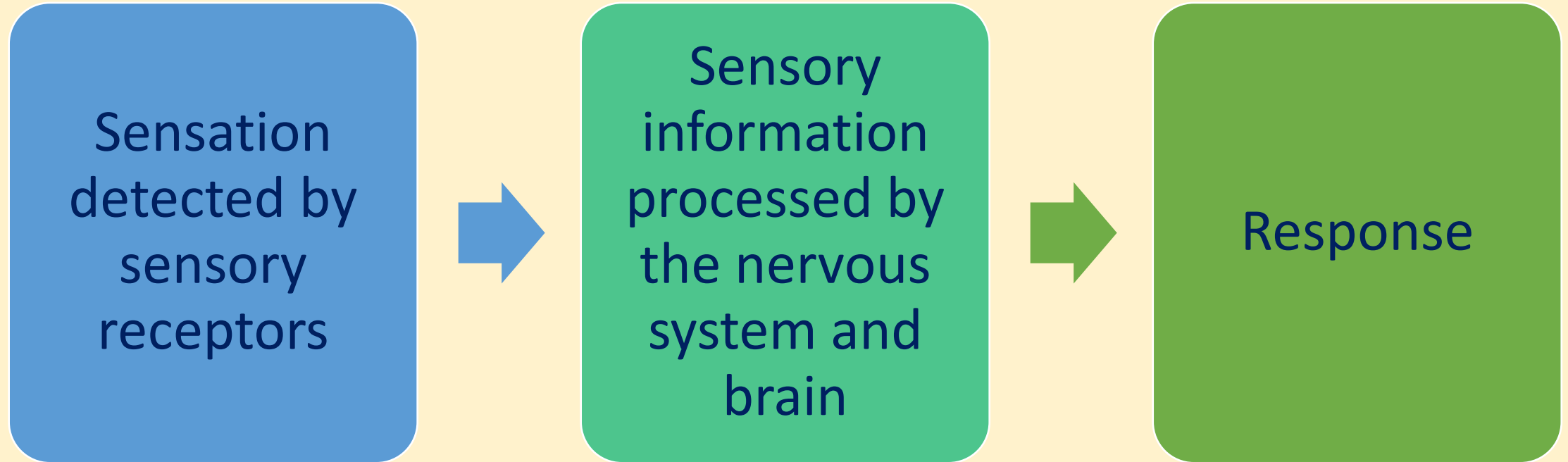
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**Can you name the different senses?**

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# Sensory Processing



This is happening constantly!



# The 8 Sensory Systems



Visual



Auditory



Touch



Taste



Smell



Vestibular



Proprioceptive



Interoceptive

# Visual system

- Gives us information about:
  - Light
  - Details of objects around us  
e.g. size, shape, colour
  - Position of things around us
  - Movement of things around us
  - Depth perception (e.g. seeing how big a drop is off a step)
  - Learning through viewing text and pictures



# Auditory (sound) system



- Gives us information about:
  - Volume
  - Tone
  - Pitch
  - Direction of sound (i.e. where it's coming from)
  - Speed of the sound (e.g. speed of approaching footsteps)



# Tactile (touch) system



- Gives us information about:
  - Two different purposes: to keep us safe and to understand the world we are in
    - Protective branch helps us sense danger – feeling of pain and extremes of temperature
    - Discriminative branch helps us make sense of how something feels e.g. smoothness, temperature, dryness, pressure





# Gustatory (taste) & Olfactory (smell) systems



- Gives us information about:
  - Eating and drinking
  - Sensing danger e.g. tasting spoiled or rotten food, smelling gas or fire
  - Influencing our regulation e.g. lavender is known to be a calming scent, citrus is typically alerting



# Vestibular (balance) system



- Gives us information about:
  - The speed at which we are moving
  - The direction in which we are moving
  - The position of our head
  - When to produce 'righting' actions to help keep our balance
  - Influencing regulation e.g. rocking is typically calming, jumping and spinning is typically alerting



# Proprioception (body position & force) system



- Gives us information about:
  - Pressure/ force e.g. how hard we push, pull, or hold something
  - The position of our body parts
- This sense is often used in many regulating and grounding sensory activities





# Interoception (inside the body) system



- Gives us information about:
  - Internal sensations e.g. hunger, thirst, needing the toilet
  - Body sensations that link to emotions e.g. 'butterflies in the tummy' when excited or nervous, tight chest when anxious, feeling hot with anger



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**What behaviours or difficulties do you notice in your child which might be related to sensory processing?**

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# Visual system

- Things you might notice:
  - Bright light may cause discomfort
  - May choose to wear sunglasses or hats to shield their eyes
  - Difficulty finding items
  - Difficulty matching items together
  - Overwhelmed by brightly coloured or visually 'busy' environments
  - May miss visual information or cues



# Auditory (sound) system



- Things you might notice:
  - Covering their ears
  - Avoiding or escaping loud environments
  - Unable to ignore/filter out background sounds
  - Unable to focus on spoken information
  - Making lots of noise
  - Difficulty in 'tuning in' to what's happening (e.g. packing up time)





# Tactile (touch) system



- Things you might notice:
  - Dislike or seeking:
    - being touched e.g. hugs, being bumped
    - the feel of certain objects or clothing
    - messy play
    - certain food textures
  - Difficulty with self-care tasks e.g. brushing teeth, washing
  - Very sensitive to pain or doesn't notice pain





# Gustatory (taste) & Olfactory (smell) systems

- Things you might notice:
  - Discomfort or distress when certain smells present
  - Noticing smells no one else notices
  - Food refusal or avoidance
  - Seeking strong or bland tastes
  - Seeking certain smells
  - Difficulty distinguishing tastes or smells



# Vestibular (balance) system



- Things you might notice:
  - Fear/discomfort during movement e.g. travel while in a vehicle, fast rides
  - Fear of feet not being on the floor
  - Poor balance
  - Fear or dislike of sports or physical activities
  - Seeking movement e.g. jumping, spinning, running



# Proprioception (body position & force) system



- Things you might notice:
  - Accidentally bumping into things
  - Spilling or dropping things
  - Tripping over often
  - Rough play
  - Accidentally breaking things by using too much force
  - Holding a pen/pencil either too loose or tight
- Tactile and proprioception systems work closely together e.g. difficulties getting dressed





# Interoception (inside the body) system



- Things you might notice:
  - Not recognising feeling hungry, thirsty or full
  - Not recognising when it's time to use the toilet
  - Difficulty developing emotional awareness e.g. hard to make sense of what emotion they are feeling from body sensation cues





Give Me Space!  
My teachers gave me toys to hold  
Every time I cried  
I would walk out of the classroom  
And toss the toys aside.  
So they gave me sand tray time  
And a classroom of my own  
I had an adult with me  
But I felt so alone.  
So they gave me a session  
With the school therapy dog  
But all the movements, touch and smells  
Just filled my brain with fog.  
They didn't know what they should do  
Nothing seemed to work  
All the nice things they were giving me  
Were just making me feel worse.

So they gave me a headset  
And my best friend sat with me  
She didn't say any words  
She just sat and let me be.  
And when the break was over  
I felt ready to return  
I could focus on my work  
Because I felt ready to learn.  
So even in kindness don't assume  
Because everyone is different  
Everyone has special skills  
We're all unique and brilliant.  
So when you see a look  
That you don't know on my face  
I'm not being rude or moody  
I just need you to give me space.

# Give Me Space

# Sensory Differences Can Be Misunderstood

- Sensory differences can have an impact on behaviour
- At times, behaviour may be misunderstood
- Refusal to take part can be based on sensory differences



# Sensory responsiveness

## Over-responsivity

- Distracted, distressed, uncomfortable
- Fight-or-flight mode - fearful, avoidant, agitated, fleeing
- 'Zoned out' or withdrawn

## Under-responsivity

- Unaware of sensations or surroundings
- Slow to respond
- Needs more of a sensation to understand it
- Seeking sensations more than others e.g. jumping, spinning, using excessive force

Thresholds!



# The 'just right' state of regulation

## High Arousal

- 'Hyper', distracted, excitable, distressed, uncomfortable
- Can be in fight/flight mode - fearful, avoidant, agitated, fleeing
- At more extreme levels of arousal, may freeze or 'shutdown'

## 'Just Right' State

- Able to make sense of themselves and their surroundings
- Able to process and tolerate sensory information
- Able to focus, engage in activities and learn
- Feeling in control, calm and regulated

## Low Arousal

- Unaware of sensations or surroundings
- Slow to respond
- Bored, sleepy, low in energy

# How to support your child with their sensory needs

- Regulation
  - Environment adaptations
  - Regulation strategies
- Strategies for sensory sensitivity
- Praxis and coordination



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**Are there any other strategies/tools your child finds helpful to support their sensory needs?**

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# Environmental Adaptations



- Create an environment that suits the unique sensory needs of your child/children
- Decrease clutter, harsh lighting, unpleasant/annoying noises
- Low-distraction zones to focus (across the senses) e.g. homework
- 'Quiet calm space'
- Access to regulating sensory supports e.g. sensory 'fidgets' and tools
- Predictable environments and expectations





# Universal Strategies To Support Regulation





- Heavy work and muscle contraction (using proprioception) (e.g. pushing, pulling, weight bearing, helping to move items, climbing)
- Movement breaks
- Outdoor play
- Yoga/mindfulness
- Slow, controlled, rhythmical rocking or swinging
- Access to a quiet, low stimulation space
- Squeezing – a self-hug, pushing hands together, or squeezing a toy

Sensory System	Calming (for over-sensitivity)	Alerting (for under-sensitivity)
Visual 	<p>Turning off or dimming bright lights - natural light is preferable.</p> <p>Wearing sunglasses or a hat. Reduce visual distractions.</p>	<p>Access to bright objects e.g. light up toys, spinning toys.</p> <p>Movement e.g. toys that produce a lot of movement like a jack in the box</p>
Auditory 	<p>Quiet time or spaces.</p> <p>Wearing ear defenders, headphones.</p> <p>Reduce auditory distraction.</p>	<p>Listening to or making fast paced, energetic music, changes in tempo, and unpredictable sounds.</p>



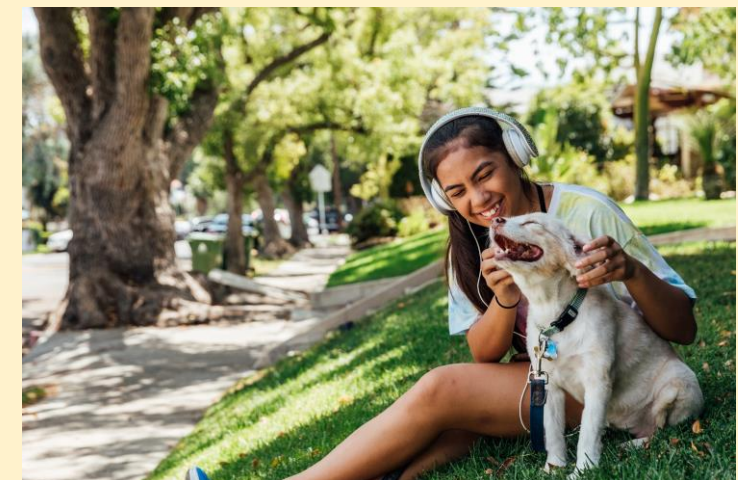
Sensory System	Calming (for over-sensitivity)	Alerting (for under-sensitivity)
<p data-bbox="58 429 224 479">Tactile</p> 	<p data-bbox="430 508 1503 639">Deep pressure touch e.g. massage, sitting in a ball pool or large bean bag</p>	<p data-bbox="1541 429 2474 639">Light touch, tickles, playing with items that have a variety of textures e.g. feather across the skin.</p>
<p data-bbox="58 808 321 858">Vestibular</p> 	<p data-bbox="430 808 1472 939">Slow, rhythmic rocking back and forth or side to side</p>	<p data-bbox="1541 808 2397 939">Multi-directional, fast movement e.g. spinning, running, jumping</p>

Sensory System	Calming (for over-sensitivity)	Alerting (for under-sensitivity)
<p data-bbox="56 411 435 468">Proprioceptive</p> 	<p data-bbox="580 411 1467 618">'Heavy work' e.g. pushing, pulling, weight bearing, helping to move items, climbing</p>	<p data-bbox="1595 411 2091 468">Clapping, stamping</p>
<p data-bbox="56 846 456 1053">Gustatory and Olfactory (taste and smell)</p> 	<p data-bbox="580 846 1513 1053">Calming smells e.g. lavender. Chewy foods, 'chewelry', sucking e.g. drinking through a straw</p>	<p data-bbox="1595 846 2466 1053">Alerting smells e.g. citrus or mint. Spicy or sour foods, ice cold food/drink, crunchy foods</p>



# Strategies For Challenging Activities


- **Tooth brushing** – Use calming strategies before, to start the task in a regulated state, use a timer to agree a clear end point, try flavourless foamless toothpaste (Oranurse), try a silicone toothbrush or a silicone finger-tip brush.
- **Loud and busy environments** – Research quieter times of day, some shops and attractions have quiet days or quiet hours. Arrive early to allow the noise levels to gradually increase. Explore sound dampening options such as ear defenders or in-ear supports. Use calming strategies before, during and after expose to loud and busy environments, to support regulation.



# Praxis And Co-ordination



- Praxis, co-ordination and the integration of sensation develop through experience
- Providing lots of opportunities for children to move their bodies in novel ways and challenge their senses in a safe, play-based environment, will offer ongoing opportunities to continually develop these skills.
- Activities such as obstacle courses and 'animal walks' are therapy favourites.
- Participating in movement-based activities will also help with regulation

A woman with long blonde hair is sitting on a large, dark blue tufted sofa. She is wearing a dark blue t-shirt and a necklace with a circular pendant. She is holding a small, brown, squishy toy in her right hand. The background shows a room with a bookshelf filled with books and a desk with a lamp and other items.

This is a kind of squishy toy  
that fits my palm perfectly.



# Embrace Self-Soothing Behaviours

Stimming e.g., hand flapping, pacing, making noises

Why may some Neurodivergent children/young people stim?

- for enjoyment
- an attempt to gain sensory input, eg rocking may be a way to stimulate the balance (vestibular) system; hand-flapping may provide visual stimulation
- an attempt to reduce sensory input, eg focusing on one particular sound may reduce the impact of a loud, distressing environment; this may particularly be seen in social situations
- to deal with stress and anxiety and to block out uncertainty.



Be mindful of whether the behaviour is safe –

Ask yourself is this safe? Is it causing danger? Is it causing disruption in a setting that is difficult to manage?



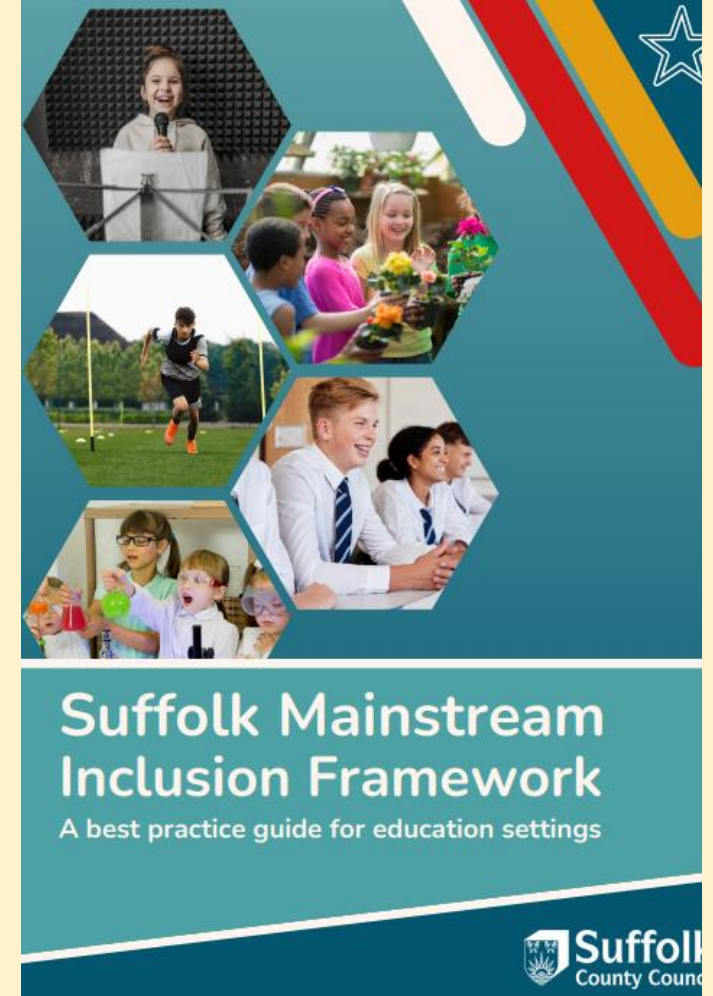
# Communicating Sensory Differences to Schools

Advocating for other environments to embrace sensory differences and to support any reasonable adjustments

Support for sensory differences in education settings is 'needs-led' not 'diagnosis-led'

- - Suffolk Mainstream Inclusion Framework:
- [SMIF Sep 24](#)
- - SENDIASS:
- [SEN support in schools for pupils with sensory processing needs – YouTube](#)
- **Childhood neurodiversity: supporting your child's education**

Watch here: [Childhood Neurodiversity: Supporting Your Child's Education](#)



‘Break down big challenges in small achievable steps and celebrate every small gain’

‘We took a while to find the things that helped our child the most but by being willing to try we have had some successes... it is important to keep trying’

Living with Autism can be confused and at times scary but for me what gave hope was sharing my story, although this took me a long time to do, it has meant that I can just be me and do what I need to do to make sense of the world - particip8!

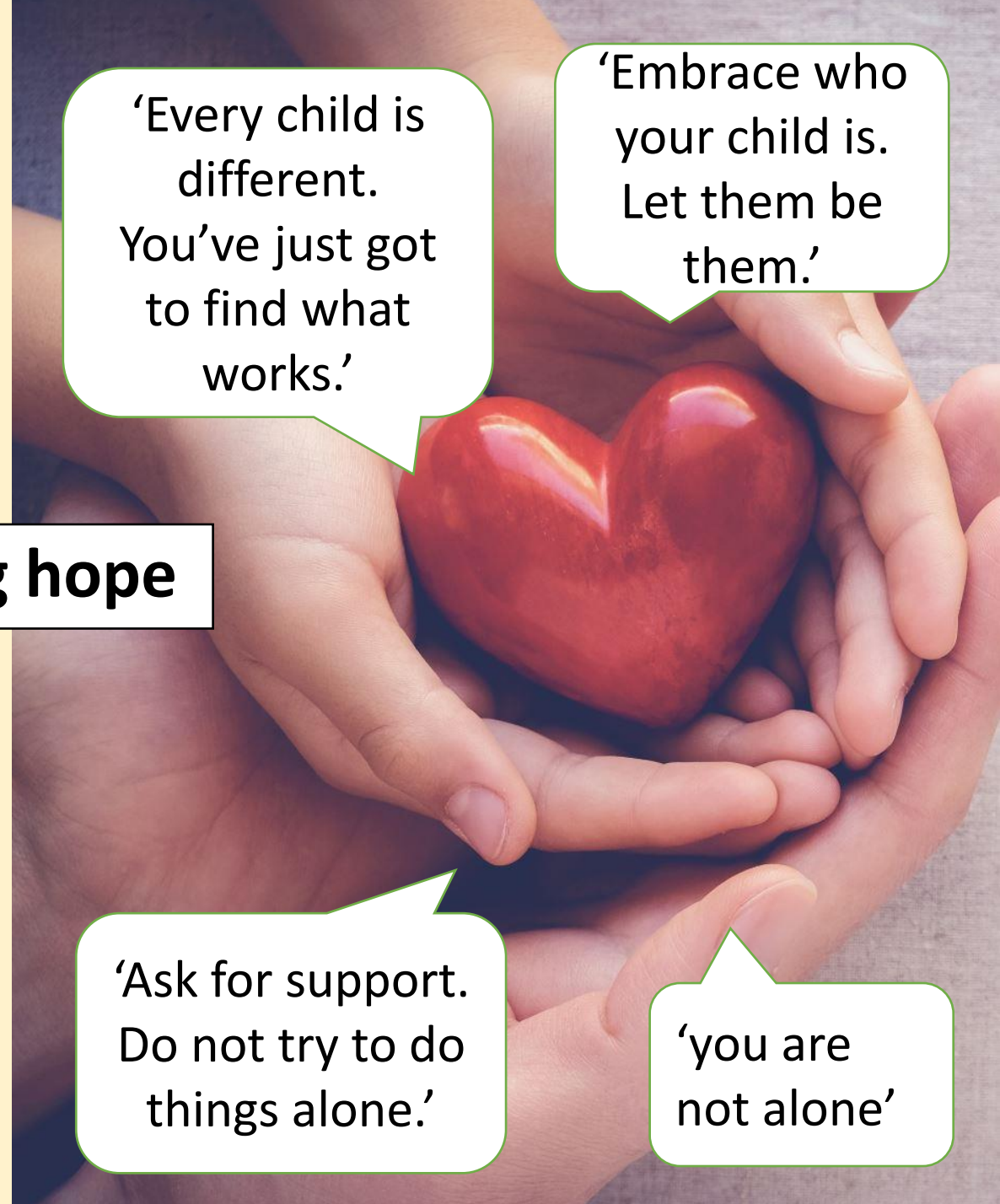
## Holding hope

‘Every child is different. You’ve just got to find what works.’

‘Embrace who your child is. Let them be them.’

‘Ask for support. Do not try to do things alone.’

‘you are not alone’



## Further resources

- [Sensory differences - online learning by Cambridgeshire Community Services Occupational Therapy Team](#)
- [Making Sense of Sensory Behaviour - A practical approach at home for parents](#)
- SI Education – information and training for professionals and parents  
<https://www.sensoryintegrationeducation.com/>
- Harkla – All Things Sensory podcast  
<https://harkla.co/blogs/podcast>
- [SEN support in schools for pupils with sensory processing needs – YouTube](#)
- <https://www.facebook.com/share/19oFv6SUEH/?mibextid=wwXlfr>

# Resources

## Books

- *Raising a Sensory Smart Child – The definitive handbook for helping your child with sensory processing issues.* Lindsey Biel and Nancy Peske
- *The Out of Synch Child –* Carol Kranowitz
- *Too Loud, Too Bright, Too Fast, Too Tight :What to do if you are Sensory Defensive in an Overstimulating World –* Sharon Heller

# Childhood neurodiversity workshop programme

## FUTURE WORKSHOPS

**Childhood Neurodiversity: Supporting Planning,  
Ordering and Remembering - Tuesday 29<sup>th</sup> April at  
13:00pm**

**Childhood Neurodiversity: Supporting Your Child  
with Low Mood - Wednesday 21<sup>st</sup> May at 13:00pm**

[Neurodiversity online parent/carers workshops - Suffolk SEND  
Local Offer](#)





# Previous Recordings in this Series

## **Childhood neurodiversity what you need to know as a parent/carer**

Watch here: [Childhood Neurodiversity: What You Need to Know as a Parent/Carer](#)

## **Childhood neurodiversity: supporting social relationships**

Watch here: [Childhood Neurodiversity: Supporting Social Relationships](#)

## **Childhood neurodiversity: supporting your child's education**

Watch here: [Childhood Neurodiversity: Supporting Your Child's Education](#)

## **Childhood neurodiversity: supporting your child with anxiety**

Watch here: [Childhood Neurodiversity: Supporting your child with anxiety](#)

## **Childhood Neurodiversity: Supporting Sleep Difficulties**

Watch here: [Childhood neurodiversity: Understanding and supporting sleep difficulties workshop](#)

## **Childhood Neurodiversity: Parental Carer Stress**

Watch here: [Childhood Neurodivergence: Managing Parental/Carer Stress](#)

# Recovery College



## Recovery College

Open to all those interested in mental health recovery in Norfolk and Suffolk, the Recovery College provides free educational courses to equip you with the skills and strategies to move on with your recovery and/or to support others.

[Recovery College | Norfolk and Suffolk NHS](#)

## Discovery college

The Discovery College offers free educational online courses and webinars on mental health topics for 16 - 25 year olds. The courses and webinars are designed so that 16 - 25 year olds can become an expert in discovering themselves and their self care alongside others their age.

[Discovery College | Norfolk and Suffolk NHS](#)



# Other free workshops

## Psychology in Schools Team

Upcoming live parent workshops on mental health:

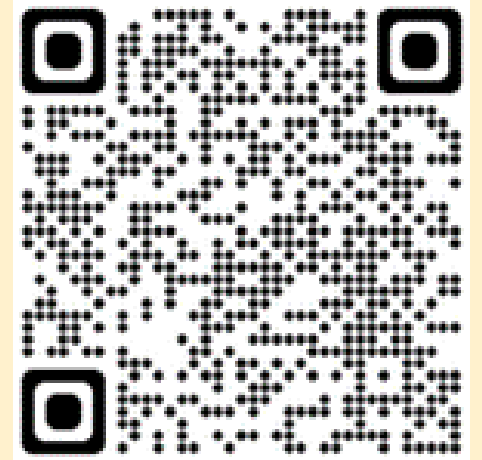
- Supporting our young people with anxiety
- Supporting your child to regulate their emotions
- Supporting young people with self-harm
- Supporting our children to manage their big feelings (ages 0 – 11)
- Supporting our young people with low mood

Recorded previous workshops on NSFT YouTube:

- Stress and resilience, school avoidance, tics and Tourette's, eating difficulties, sleep, trauma, OCD and more!

[www.nsft.uk/workshops](http://www.nsft.uk/workshops) Eventbrite page for live booking

<https://www.nsft.nhs.uk/parent-workshops> All recorded workshops



# Key resources if you are worried about your young person

- **Young Minds parent helpline** 0808 802 5544 (9am -4.30pm M-F) and webchat service: <https://www.youngminds.org.uk/parent/parents-helpline-and-webchat/>

- **111, option 2 crisis support**

- **Papyrus – Prevention of Young Suicide**

[Papyrus UK Suicide Prevention | Prevention of Young Suicide \(papyrus-uk.org\)](https://www.papyrus-uk.org/)

- **Psychology in Schools Parent**

**Workshop: Understanding Self Harm in Children/Adolescents**

[Understanding Self-Harm in Children/Adolescents \(youtube.com\)](https://www.youtube.com/watch?v=...)

- [MIND urgent help](#)





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**How would you rate your understanding of sensory processing?**

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**How would you rate your confidence supporting your child with their sensory needs?**

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I found today's workshop helpful

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**Two key things I will take away from this workshop are...**

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Please download and install the Slido app on all computers you use



**One thing to improve this workshop is...**

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Childhood Neurodiversity:  
Supporting Sensory Needs  
Feedback Survey (LIVE)



<https://forms.office.com/e/NMShngcrxJ>