# Field Guide Enabling Environments

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# Introduction

#### **Purpose:**

The purpose of the Field Guide is to provide teachers with:

- Strategies and ideas to support pupils to develop their ability to remain focused and regulated in the school environment.
- For teachers to make changes to the sensory environment in order to enhance the pupils' learning experience and support pupil's regulation.
- To enhance teachers' understanding- of the impact of sensory stimuli in the school environment on the pupils ability to regulate and learn.

This Field Guide provides a brief overview of sensory processing differences that some pupils may experience, as well as regulation strategies that can be implemented based on the results of the sensory processing checklists completed by the pupils.

It is important to remember that each person is a unique individual and so too are their strengths and differences. For some, this means they may require additional health and care assessments conducted by a qualified professional in order to identify the most appropriate support strategy.

#### How to use the Field Guide:

The pupils should complete the Sensory Preferences Checklist and then indicate their answers on the Interpretation sheet as instructed. The strategies in the Field Guide are linked to the possible answers pupils can provide in their checklist and on the interpretation sheet. Teachers can therefore look at the pupils' interpretation sheets and find strategies relating specifically to the pupils' answers. There are two ways of doing this:

- If the pupil highlighted many areas under the visual system, the teacher can look at the strategies under the visual system in the Field Guide.
- If a pupil highlighted many areas under sensitivity, then the teacher can look at the strategies under the sensory sensitive section in the Field Guide.

Teachers can read through the whole guide to familiarise themselves with it or they can use it as a quick reference guide and only look at the sections for strategies needed based on the information pupils provided on the interpretation sheet.



# Introduction

#### **Overview:**

Sensory processing is the ability to accurately process sensory information from our environment and our own bodies through the use of our sensory systems. The information we obtain is registered, regulated and results in an adapted response in order to meet the demands of the environment or the task<sup>1</sup>. For example, if a teacher calls a pupil's name, the pupil will hear it and the expected adapted/appropriate response will be for that pupil to respond to the teacher with their actions and/or words.

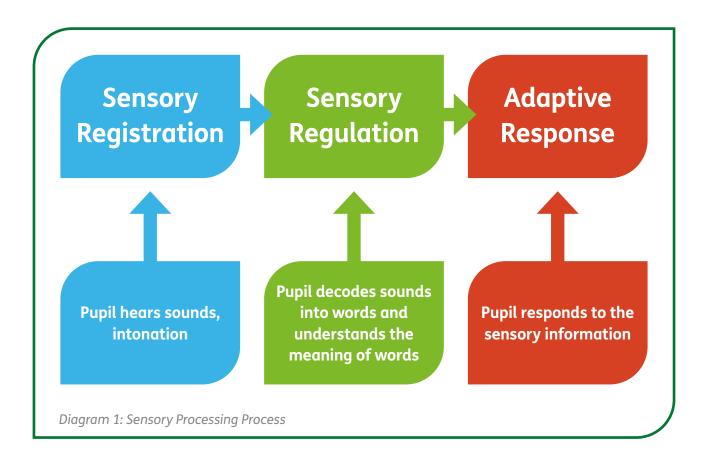
However, when the sensory systems are not processing information as expected, it results in responses that are unexpected, delayed or inappropriate to the situation. For example, when the teacher calls the pupil's name, they don't hear the teacher or takes longer to process the auditory information, and therefore do not respond or respond slower. Sensory processing impacts pupils', as well as teachers' responses and participation in daily activities, whether they are neuro-typical or neuro-diverse<sup>2</sup>.

Everyone processes sensory information differently. Sensory processing difficulties are experienced when the way in which a person processes information and responds to it, prevents them from, or makes it hard for them to, participate in daily activities, such as learning, socialising, etc.

Effective individualised strategies and adaptations to the environment can help a person process sensory information.

As sensory processing is clinical in nature, for the purposes of this Field Guide the term sensory processing difficulties will be used. The way in which these difficulties present are different and unique to the individual.





#### Fight, Flight, Freeze or Fright Response:

**Sensitivity** in the sensory systems can result in a pupil experiencing the fight/flight reaction as their body immediately responds to the sensory stimuli that they are sensitive to as if they are in danger. For the purposes of this Field Guide, the word 'fight' is used in relation to the fight/flight response.

When a pupil with sensory sensitivity becomes dysregulated, it takes them longer to return to their baseline of feeling calm compared to pupils who may not have sensory processing difficulties. Their bodies also do not get used to incoming sensory information the way other pupils' would.

For example, if a pupil sits in class and they can hear the sound of the nearby traffic they are unable to tune it out and their brain keeps telling them that it is information they have to respond too. This then distracts them from listening to what that teacher is saying and the pupil may appear to either be distracted and fidgety or as if they are day dreaming.

If a motorbike suddenly revs its engine as it races past, this pupil is likely to get a fright and they will feel more dysregulated than what they already are and will take a while to feel calmer.

There can sometimes be a **clear trigger** for a pupil's behaviour but often there is not a clear trigger when a pupil becomes upset, as most of the time there is a build-up throughout the day (which might have already started at home and during their journey to school) and it might only take something small to happen that pushes the pupil into feeling upset and dysregulated.

The average school environment is filled with a large amount of sensory input, and this adds to a pupil becoming **dysregulated** as they are constantly exposed to many visual displays, pupils talking, noises inside and outside the classrooms and pupils being near them, particularly during transitions and line-up before school and lunch times.

Pupils can respond to sensory stimuli with a fight, flight, freeze or fright response. In this Field Guide we linked these responses to the four areas that sensory processing difficulties can present as described by the Sensory Model by Winnie Dunn<sup>3</sup>.

# **Poor Registration**

- Missing sensory input
- Daydreaming
- FREEZE

#### Sensitive

- Overloaded
- Notice all sensory input
- FRIGHT

Diagram 2: Four Sensory Areas

# Seeking

- · Seeking sensory input
- Distracted
- FIGHT

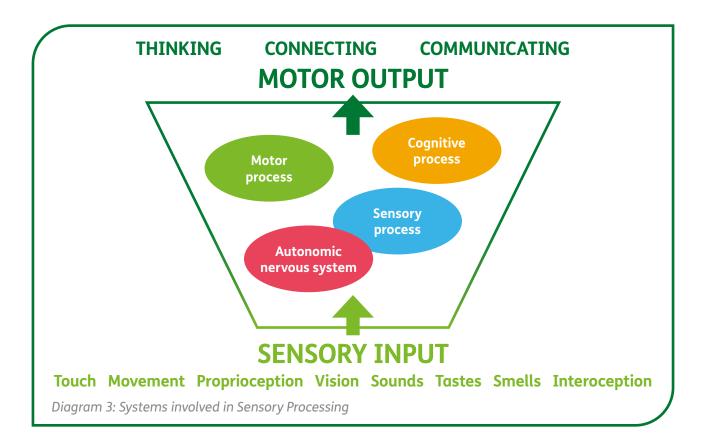
#### **Avoidance**

- Anxious
- Avoiding sensory input
- FLIGHT

The ability of a person to register, regulate and integrate information is extraordinary. **Sensory information** from the body and from the environment is registered through the various senses, **touch**, **movement**, **proprioception**, **vision**, **sound**, **taste**, **smell and interoception**, inside the body.

This information is processed by the brain and influences the autonomic nervous system (ANS), other sensory systems, the motor system and cognitive processing in various and profound ways. The brain is then able to recognise, analyse and categorise this information in order to formulate an **adaptive motor response**.

This results in something that we ourselves and or other people can experience. For example we start to **think** about something and then we choose to go and do it and/or to go and say it. This means we are able to **connect and/or communicate** with something and/or someone.



These adaptive responses can also be used to identify **challenges in the processing of sensory information** and it can impact a pupil in various ways during the school day<sup>4</sup>.

It can influence a pupil's ability to **concentrate and pay attention** which in turn may impact their **ability to problem solve, plan and make decisions**. Pupils may also be easily **distracted** by incoming sensory information which influences their ability to tolerate input, e.g. being bothered by **noises** and/or by the texture of their **school uniform**.

Being intolerant to input often leads pupils to **fidget** and or an inability to sit or stand still when the pupil is expected to. They might also appear not to **listen** and struggle to **follow instructions**. A pupil may also find it difficult to **endure** all of the input and the motor requirements of upright **sitting and standing postures** for the prolonged period of a school day, which may lead to a poor quality of motor output, e.g. struggling with **activities in PE**, especially activities requiring balance and coordination, **handwriting and other fine motor tasks** in the classroom.

A pupil might also find it difficult to transition, appear clumsy, seem to tire easily, find it difficult to organise themselves and find it difficult to participate in group activities.

Pupils may feel overwhelmed by all the social-emotional demands of coping with the academic work pace, connecting with themselves and with peers and being able to clearly communicate in different settings, such as in the classroom and during break times.

The pupils may not realise that they are becoming overwhelmed/dysregulated and may require help from staff to recognise this and to recognise the need to regulate. Dysregulation may lead to the pupil responding with communicating behaviours such as disruptive, withdrawal or avoidant behaviour and a disengagement from learning.

# **Auditory system**

"Sound waves in the air stimulate the auditory receptors in the inner ear to send impulses to the brain stem auditory centres. The most intricate and complicated part of the process is the refinement of certain sounds into meaningful syllables and words." <sup>5</sup>

The auditory system does not just help a person to **hear sounds** but also provides information about whether a sound **is important** and should be **attended** to (i.e. a fire alarm) or whether it can be **ignored** (i.e. the sound of a lawnmower outside). It provides information about **how far away** the sound is, **where it comes from** and whether it is a **new or familiar** sound.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### Registration (Freeze)

#### I miss verbal instructions

- Help the pupil to make a plan to increase their understanding of instructions by asking people to talk slower, repeat instructions, take notes, etc.
- Teachers could use a sound-field amplification (SFA) system that can reduce auditory stress and improve listening.
- Check with the pupil during the lesson to see if they understand tasks.
- Provide pupils with a copy of the class notes and or an audio recording of the lesson.
- Underline, circle or highlight key terminology on reading material for the pupil.
- If a teacher has a strong accent they should be aware that some pupils might find it difficult to follow what they are saying and might therefore miss verbal instructions.

#### Sensitive (Fright)

I get distracted by sounds in the environment and easily get a fright at loud/unexpected noises

- Help the pupil to make a plan for when he/she gets distracted to find their place.
- Written instructions help pupils to refocus.
- Have a clear beginning and ending to assignments.
- Be aware of and limit noise from outside and inside the classroom where possible.
- Identify if there are pupils in the class that speak loudly on a regular basis and whether this distract pupils who are sensitive to noise. If so, consider the seating arrangements of the pupils.
- Consider the impact of the increase in noise levels during paired work and group discussions<sup>6</sup>. If needed, a pupil can be given a quick break from the noisy classroom environment.
- Pupils bothered by unexpected noise should be informed of fire drills.

#### Seeking (Fight)

#### I work better when I listen to my music

- Play calming classical background music.
- Listening to audio books during free time.
- Listening to calming music with inner-ear ear phones during the lesson.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### **Avoiding (Flight)**

I am bothered by the noise level in assemblies, lunch times, etc.

- Let the pupil sit near the back in case they have to leave the environment if they need to.
- Allow the use of inner-ear ear defenders.
- Listening to white noise in background or with inner-ear ear phones.
- Ensure the pupil has an individualised plan on how to manage when noise levels become too much for them.

#### Consider Environmental Adaptations to improve Auditory Processing

- Ensure all new chairs and tables have **rubber stoppers** on the legs to reduce the noise levels when pupils move the chairs. Alternatively classrooms can be **carpeted** to reduce noise levels.
- Limit the noise created by **electronic or other equipment** in the classroom by ensuring equipment is in good working order. For example, humming lights, the sound of overhead projectors, air conditioning units, air purifiers, fans, etc. If the noise cannot be eliminated staff should be aware of the dysregulating impact on auditory sensitive pupils.
- Consider what adjustments can be made to **reduce acoustics**, e.g. acoustic boards, carpeting, soft furnishings, etc., particularly in areas such as the canteen, hall and PE hall.
- Staff should also be aware of the **impact of noise from outside** the classroom, such as traffic from nearby roads, temporary road works, lawnmowers, sound from other classrooms. Closing the classroom door and windows might help reduce the noise levels.
- Schools cannot easily change the problem of some corridors/stairways being echoic, however staff should be aware of the impact of this on pupil's levels of regulation and in some cases they might have to close their classroom doors to minimise this during lessons.
- **Crowded areas**, such as corridors during transitions times and PE changing rooms, contribute to **dysregulation due to the noise levels**. Staff might not be able to change this but should be aware of the impact on pupil's levels of regulation.
- Staff might feel that it is necessary at times to **raise their voice** at pupils but they should be aware that it can contribute to dysregulation for pupils who are sensitive to auditory input.
- If hand dryers are replaced they can be replaced with quieter hand dryers.
- Noise levels during transitions contribute to pupils becoming dysregulated. If a
  teacher notices that many pupils in the class are dysregulated and struggling to
  pay attention then it will be beneficial to spend the first five minutes of the lesson
  engaging in a calming activity.
- Pupils that find it difficult due to auditory sensitivity to **transition** with the rest of the school should be allowed to transition to lessons and lunch a few minutes earlier or later if they feel they would benefit from this.
- An **increase in awareness and the support** available for pupils who appear quiet and do not present with behaviour that challenges, as they can easily be missed and not receive the support they require.

# Visual system

"Light stimulates the retina to send visual sensory input to the visual processing centres in the brain stem. These centres process the impulses and relate them to other types of sensory information, especially input from the muscles and joints and vestibular system." <sup>5</sup>

The visual system does not just provide information about **what we see** but also the **detailed information about our environment** such as colours, brightness, patterns, shapes, depth and contrasts.

#### Strategies to help Pupils in the Classroom with Sensory Input

# **Registration (Freeze)**I miss written instructions and struggle to keep myself organised

- Use a window-guide or coloured overlays when reading.
- Follow a predictable schedule and inform the pupil what is expected for a task to help them organise themselves ahead of time.
- Make checklists and ask the pupil to tick or cross out each step as they complete it.
- Break long tasks or assignments into shorter tasks with deadlines to help the pupil not feel overwhelmed and remain on track.
- Provide clear instructions for tasks.
- Provide pupil with a copy of the class notes and or an audio recording of the lesson.
- Underline, circle or highlight key terms on reading material for the pupil.

# Sensitive (Fright) I am bothered by lights in the classroom and easily distracted by movement or reflections of light near me

- Use a window-guide or coloured overlays when reading.
- Identify if there are any areas in the classroom where there are reflections of light or movement of shadows.
- Consider seating arrangements to place the pupil where there are the least distractions caused by light near their desk.
- Minimise overwhelming visual stimuli such as bright light.

#### **Seeking (Fight)** I enjoy being in places that are visually busy

- Consider seating arrangements to place the pupil where there are the least movements near their desk.
- Do not place the pupil near windows or doorways to the corridor where they can be distracted by watching people outside the classroom.

#### **Avoiding (Flight)** I become frustrated when I read

- Reduce the visual displays in the classrooms to reduce overall distractions.
- Decrease visual distractions by considering where in the class the pupil is seated.
- Use a window-guide or coloured overlays when reading.



#### **Consider Environmental Adaptations to improve Visual Processing**

- Ensure all the lights are in working order and consider the different **types of lighting** used, e.g. fluorescents lights tend to be uncomfortable on the eyes.
- **Natural lighting** (Use of blinds, UV filters on windows, no sky lights if there are a sufficient amount of windows otherwise it makes the room too hot).
- Be aware of and try to **eliminate patterns of shadows** and bright sunlight coming into the room as it can be visually distracting and overwhelming.
- **Mood/light filters** can be placed over fluorescent lights to block out the flickering of the lights which can contribute to visual stress and dysregulation (Hooper, 2017).
- Many autistic people and people with visual sensitivity find it difficult to make eye contact. They find that they are able to pay attention better when they do not have to make eye contact. Staff should therefore not expect pupils to have to make eye contact in order to be paying attention as this can have the opposite effect.
- Some pupils might become visually overwhelmed by too many wall decorations in class and or in the corridors. This will impact on their self-regulation and ability to concentrate in class as they might become distracted or seem not to pay attention as they might 'shut down'. Therefore limit the amount of wall decorations in corridors and classes to reduce visual distractions and create the impression of a larger space.
- Visual displays on the walls in classrooms should be minimal. Where there
  are displays this should be limited to one wall and the displays should be
  neatly organised.
- Visual clutter should be reduced in classrooms. For example, books, activities, stationary and other resources should be stored in containers or cupboards to reduce distraction.
- A **consistent colour scheme** throughout the school and classes using calming colours such as cream or pastel colours (7) including lilac, light blue, mint green, will contribute to a low arousal environment. Avoid bright colours, random colours, patterns or pictures. Consistency in the colour and design of chairs and tables throughout the school is also a consideration.
- Clear colour-coded signage across the school site is helpful for pupils struggling to organise.
- Colour-coded school map for new pupils that corresponds to the signage is helpful.
- Clearly **signposted areas** to help pupils to access equipment in classrooms, for example art, food technology, etc.
- Ensure lines painted on steps are clear enough to indicate where the steps are.

# Tactile system

"The skin has many different kinds of receptors for receiving sensations of touch, pressure, texture, heat or cold, pain and movement of the hairs of the skin. The tactile system is the largest sensory system and it plays a vital role in human behaviour, both physical and mental." <sup>5</sup>

The tactile system provides information about **textures of everything around us**, the **differences** between textures and whether it is **wet or dry**. It helps us to **plan what to wear** according to the **temperature outside and inside** a room. It helps us to **stop and change** when we feel **pressure and/or pain**.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### Registration (Freeze)

I am unaware of temperature or pain and don't notice when my hands or face are dirty

- On a hot day the pupil might need reminding to take their jumper and or blazer off as they will not think of doing so and this can impact their ability to concentrate.
- Pupils may struggle to "feel" when they are hungry, thirsty, hot, cold and/or need to use the toilet, therefore they might need prompting.
- The pupil might have to be made aware if their hands are dirty.

#### Sensitive (Fright)

I am bothered by certain textures of clothing, etc. and dislike it if my hands get dirty

- Tag-less clothes, seamless socks, and reasonable adjustments allowed to uniform, e.g. clip on ties, wear T-shirt underneath shirt, variations or changes in the school uniform to be considered, etc.
- Squeeze a stress ball or use a sensory fidget in class to promote calm.
- Pupils might try to avoid touching certain textures during art and food technology or wear gloves or wash their hands often during a task, and this should be accommodated.

#### Seeking (Fight)

#### I fidget with objects

- Allow the use of sensory fidgets in the classroom. (See Appendix C for suggestions)
- Allow pupils to fidget in a non-disruptive manner to pupil's around them with objects such as paperclips, Blu Tack, etc.

#### **Avoiding (Flight)**

#### I dislike it when people touch me unexpectedly

- Inform the pupil if they are going to be touched.
- If possible limit close seating and increase space between pupils.
- Consider that a pupil might become anxious during transitions, lunch times, assemblies and PE when they are in close proximity to others. Reasonable adjustments should be made if needed for pupils struggling in the aforementioned environments. For example leaving early, arriving earlier, ensuring sufficient space.



Respect every pupil's response to sensory stimuli. A comfortable feeling for you may be an uncomfortable feeling for someone else.

#### Consider Environmental Adaptations to improve Tactile Processing

- Every person does not regulate temperature the same and therefore one consideration is that pupils are allowed to remove their **blazers** in the classrooms, especially where there is poor ventilation and/or when it is hot.
- The **temperature** in some school buildings on warm days can contribute to pupils becoming dysregulated and struggling to focus in class as they might feel too hot.
- **Blinds** that have a solar reflective property will support the regulation of classroom temperatures.
- **Seasonal changes** can impact pupils in a variety of different ways and staff should be aware of this.
- **Crowded areas**, such as corridors during transitions times and PE changing rooms, contribute to dysregulation due to pupil's with **tactile sensitivity** finding it difficult to tolerate others being close to them and or pushing against them. Staff might not be able to change this but should be aware of the impact on pupil's levels of regulation.
- Pupils that find it difficult due to tactile sensitivity to **transition** with the rest of the school should be allowed to transition to lessons and lunch a few minutes earlier or later if they feel they would benefit from this.

# **Movement system**

"When the vestibular system works normally, the pull of gravity generates a constant sensory flow from early fetal life until death. The sensations from gravity flowing through our nervous system help to form a basic reference for all other sensory experiences. Every change in head position stimulates some of the vestibular receptors." 5

The vestibular system is situated in the inner ear and provides information about our **balance**, **coordination of movements**, **head position**, maintaining a stable **visual field** and contributes to our sense of **body position in space**; where we are in **relation** to other objects and people, **bilateral coordination**, the **speed** at which we are moving, as well as **posture and muscle tone**.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### Registration (Freeze)

I get lost easily

- Ensure the different areas of the school are clearly signposted and that pupils have a map to help them find their way around the school.
- Provide the pupil with a map of the school in their planner or lanyard.
- Pupils might need more support and for a longer period of time when they join the school to help them orientate themselves. They should not be given consequences if they arrive late for lessons due to this being a difficulty.

#### Sensitive (Fright)

I become dizzy easily and often lose my balance

- Consider the impact of this during certain physical activities in PE and make reasonable adjustments for the pupil, for example they can help to organise the activity but does not have to participate, etc.
- A pupil that is very sensitive to movement might find it difficult to sit at a right angle to the front of the class as they will have to turn their head, as well as lift their head up and down when writing information from the whiteboard. The pupil will manage better facing the front of the class.

#### Seeking (Fight)

I struggle to keep still and need to fidget/rock and I like to move my body

- Allow the pupil to use sensory fidgets in the classroom.
- Allow the pupil to do chair push-ups now and then.
- Allow a movement break.

#### Avoiding (Flight)

I have a fear of heights, escalators and lifts

• Keep this in mind during school trips; prepare and provide support to a pupil that have to access areas they might struggle with or provide an alternative route.



#### Things to Remember:

The vestibular system does not only influence balance but also the eye, neck and body muscles. This means that if a pupil is not processing vestibular information appropriately it can impact their ability to follow writing on a whiteboard and copy it in their books, they will have difficulty keeping their head up at their desk as well as consistently maintaining an upright sitting posture and they will get tired quickly.<sup>5</sup>

# Consider Environmental Adaptations to improve Vestibular (movement) Processing

- Plan the **layout of the classroom** in order to avoid trip hazards and provide space to transition easily between desks and chairs.
- **Ergonomic seating challenges** found in some classrooms, for example Design and Technology classrooms, could prove difficult for pupils with poor trunk stability, which could lead to 'fidgeting', distraction and dysregulation. This could be misconstrued as day dreaming or pupils not paying attention.
- Plan **position** of lockers in order to create functional spaces.
- **Areas with a lot of equipment** should be well organised and stimuli reduced, for example in classrooms such as art, and design and technology, to create space that facilitate thinking and to enhance ease of movement around the classroom.
- Implementation of **movement breaks** and staff training to explain to staff the reasons behind movement breaks and how pupils benefit from them.
- Provide sufficient space to transition in corridors and on staircases.
- Pupils that find it difficult due to movement sensitivity to transition with the rest of the school should be allowed to transition to lessons and lunch a few minutes earlier or later if they feel they would benefit from this.

# **Proprioceptive system**

"Our body precept consists of "maps" of every part of our body, somewhat like a world atlas. As a child moves and does things, he stores countless bits of sensory information, just as a world explorer maps the land they discover. The more variations of movement this child performs, the more accurate his body "maps" will be. The brain can refer to its body precept to plan movements, in much the same way as we use maps to navigate a journey. The more accurate the "maps" the more able one is to "navigate" unfamiliar body movements." <sup>5</sup>

The proprioceptive system is situated in the **muscles, tendons, ligaments and joint receptors**. It tells us where our body is in **relation to objects** in our environment and in relation to ourselves. It also provides information about and controls the **amount of force** we use when we pick up, hold, squeeze and throw objects.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### Registration (Freeze)

I am clumsy and tend to bump into/drop things and I move chairs roughly or open and close doors too hard

- Ensure there is sufficient space between tables in the classrooms.
- Ensure pupil's book bags are not in the way where they walk.
- Consider this during PE lessons as it might impact a pupil's confidence to participate in activities where there are a lot of people moving around and objects to navigate.
- Teach pupils about boundaries people's, objects and spaces all have boundaries and help them think about this in order to plan their movements cognitively.

#### Sensitive (Fright)

#### I feel physically tired

- Be aware that this will impact concentration and participation in lessons.
- Allow the use of sensory fidgets to help the pupil concentrate.
- The pupil might struggle with activities that require endurance during PE.
- Teach pupils about rest and time management in order to help them to monitor their physical exertion.

#### Seeking (Fight)

#### I like chewing on objects

- Allow pupil to chew gum in class, if they are able to do so in a subtle manner.
- Allow chewing on chewable pencil toppers, designed for this purpose.
- Teach pupils about nutrition to help them understand how different food groups influence stamina, endurance and the ability to maintain attention in order to learn.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### **Avoiding (Flight)**

I don't like physical activities and I don't enjoy team sports

- Be encouraging during PE lessons without drawing too much attention to the pupil.
- Grade physical activities where possible to enable pupils of all abilities to be able to participate.
- Give a pupil who finds physical activities very difficult easier parts of the activity to do or ask them to help organise teams and or activity, etc.



#### Things to Remember:

A pupil with difficulties with form and space perception can see but they are unable to obtain "proper information" from what they see. For example, the pupil might see a chair but "bumps into it anyway".<sup>5</sup>

# Consider Environmental Adaptations to improve Proprioceptive Processing

- Furniture and equipment in classrooms should be organised in a manner that allows **sufficient space** for pupils to get to their seats.
- Consideration to be given to class seating plans depending on the **pupil's sensory processing preferences**.
- If there are **areas/routes** that a pupil find particularly difficult to navigate then alternative routes should be considered, if possible.
- Pupils that find it difficult due to **proprioceptive difficulties** to transition with the rest of the school should be allowed to transition to lessons and lunch **a few minutes earlier or later** if they feel they would benefit from this.
- Difficulties with proprioception should be considered in relation to **safety in lessons** where equipment such as ovens, saws, etc. are used as the pupil might **struggle to judge** where their hands and fingers are in relation to the equipment.
- Proprioceptive difficulties will impact participation in PE as the pupil might throw
  or hit a ball too hard or too soft but will struggle to adjust to what is required by
  the activity.

# Taste and Smell system

"The mouth contains many sensory receptors that help us to identify the texture, shape, temperature and taste of food and guide the process of eating, chewing and swallowing." <sup>5</sup>

The **taste system** provides information about **flavours, textures and temperature**. It also **discriminated** between sweet, salty, bitter and sour.

"Smell is unique in that it is processed directly through the limbic system without having to travel through the typical brain stem channels. Because of this, it is possible that smell may activate emotions directly and will influence how much we like or don't like what we encounter just by the way it smells." <sup>5</sup>

The **smell system** provides information about the **odours** around us. It is strongly linked to **emotions and memory** which means it can **trigger unexpected trauma reactions**.

#### Strategies to help Pupils in the Classroom with Sensory Input

#### Registration (Freeze)

#### I prefer to eat the same foods

- If pupils are expected to eat the food they made during food technology then it should not be demanded that they eat the food if they did not want too.
- Allow these pupils to take time to develop an understanding of flavours during food technology classes.

#### Sensitive (Fright)

#### I am bothered by smells that others don't notice

- Be aware that this might impact a pupil's ability to concentrate and participate.
- Be aware of the impact of odours in areas such as PE changing rooms, toilets, the canteen, food technology classrooms, art, woodwork, design and technology classroom, and the smell of cleaning products used around the school.
- Pupils should be allowed to leave the area if an odour is too overwhelming for them.
- Alternative toileting arrangements should be made for pupils who cannot access the toilets due to smell sensitivity.

#### Seeking (Fight)

#### I particularly like crunchy or chewy foods

- Allow pupil to use chewable pencil toppers, designed for this purpose.
- Allow chewing gum if it helps the pupil to be organised, calm and improve concentration.

#### **Avoiding (Flight)**

#### I am bothered by and avoid certain food textures

- Be aware that this might impact a pupil's ability to participate in activities involving food.
- This might impact what food and the amount of food a pupil eat, depending on what is available.

# Consider Environmental Adaptations to improve Taste and Smell Processing

- Staff should be aware that pupils with smell sensitivity can find certain lessons
  difficult to attend and the sensory stimuli they are exposed to can contribute to
  the pupils becoming dysregulated or presenting with avoidance behaviour as they
  might not want to attend the lessons. Environments where this might be problematic
  include art, woodwork, design and technology, chemistry, food technology, the
  canteen, toilets and PE changing rooms.
- Be aware of how **smell** can influence attention and help pupils who need time out from smells during the aforementioned lessons.
- Ensure there is sufficient **ventilation** in classrooms, corridors and toilets.
- Be aware that cleaning products used to clean the school equipment, floors, etc. can smell quite strongly to pupils sensitive to odours and can impact their concentration.

# **Poor registration**

"Bystanders are very easy-going about their daily life routines. They will have a basic plan for meeting their life-management responsibilities, but will be loosely organised." <sup>3</sup>

When a pupil presents with poor registration it means that they **miss sensory input**, for example they might miss instructions on how to complete a task in class. This might happen because they take longer to process information, they are distracted by other incoming sensory stimuli such as a noise outside, the sound of an air humidifier in class, etc. or they need more intense input of the sensory information before they register the sensory stimuli and are able to respond. This might make them seem as if they are ignoring the teacher, **daydreaming or 'freezing'**.

# Building understanding of how to help people who "freeze" to improve their ability to learn and adapt in everyday life

#### Auditory

I miss verbal instructions

#### Visual

I miss written instructions and struggle to keep myself organised

#### **Tactile**

I am unaware of temperature or pain I don't notice when my hands/face are dirty

#### Movement

I get lost easily

#### **Proprioception**

I am clumsy & bump into/drop things & I move chairs roughly or open & close doors too hard

#### Taste/Smell

I prefer to eat the same foods

#### Help them by creating:

- Clear boundaries helps the pupil the most, e.g. showing the beginning, middle and end of a task and or being clear on timelines of projects.
- Flexible parameters of how the work can be completed.
- Visual schedules.
- Visual reminders.
- Time management plans, e.g. setting alarms.
- Repetition of instructions in different ways.
   For example explain the instruction using different words, presenting the instructions step-by-step in writing, or provide an example/ demonstration, etc.
- Time to understand what they are learning.
- A friendly environment by adjusting the tone, intonation and speed at which instructions are given.

#### Teach them to:

- Manage their time and help them to see when they were successful so that they can implement it again.
- Work in buddy systems.
- Make plans that will help them to maintain their focus, e.g. individually listening to music while working.
- Plan to work for set periods and to then take a break and or shift their attention in order to stay productive.

These pupils provide a calming influence on others.

# Sensory sensitive

"Sensors are very picky, because their sensory needs are so precise. Even the best planned life management rituals will get changed or interrupted so Sensors can often become upset." <sup>3</sup>

When a pupil is sensitive to sensory information they notice sensory input much quicker than others, they can notice sensory input that others don't notice and they become overwhelmed very easily from too much sensory input. Due to the higher levels of anxiety and sensitivity to incoming sensory stimuli the pupil can easily have a 'fright' as they respond quicker and with a greater intensity to sensory input. However they can also present with the 'fright' response if they interpret a particular sensory stimulus as a threat and as a result react automatically in a manner to protect themselves.

# Building understanding of how to help people who are easily frightened / anxious, to improve their ability to learn and adapt in everyday life

#### **Auditory**

I get distracted by sound in my environment & easily get a fright from loud and unexpected sounds

#### Visual

I am bothered & distracted by movement, reflections & lights

#### **Tactile**

I am bothered by certain textures of clothing/materials & dislike dirty hands

#### Movement

I am sensitive to movement & I get dizzy easily

#### **Proprioception**

I feel physically tired

#### Taste/Smell

I am bothered by smells that don't bother others

#### Help them by creating:

- A calm, structured, quiet setting to bring out optimal performance from these pupils.
- An environment with minimal distractions as they are easily overwhelmed.
- Clear spaces for specific tasks as this will help them to think faster and deeper.
- Detailed and precise instructions.
- A system where they are allowed to keep their own schedules or check materials or other details.

#### Teach them to:

- Use their own materials and supplies so that they can work at their own pace and can look after the materials.
- Accept imperfections, that it is part of the creative process.
- Accept changes and to be open to more options.
- Think about how they can create their own spaces that will help them to complete tasks.
- "Let go" that every task does not have to be done with the same precision and focus.

These pupils are good at editing and/or finding mistakes.

# Sensory seeker

"Seekers want more sensory input and so their daily routines will be packed with sensation. They will find ways to make even repetitive activities different from day to day or weekly because the changes introduce new sensory experiences." <sup>3</sup>

When a pupil takes longer to register sensory information and **misses information** it often impacts their behaviour in that they actively seek more input themselves. The pupil might look like they are distracted, fidgety and seeking more sensory input such as movement, touch, noise, etc. For example, a pupil will **keep disturbing another pupil** in order to try and determine what information they have missed during a task.

A pupil's sensation seeking behaviour is active behaviour in their attempt to 'fight' in order to gain more sensory information. Unfortunately this behaviour can negatively impact the pupil and those around them, as it distracts the pupils around them and get themselves in trouble.

# Building understanding of how to help people who tend to fight when they are unsure to know how to learn and adapt in everyday life

#### **Auditory**

I work better when I listen to my music

#### Visual

I enjoy being in places that are visually busy

#### **Tactile**

I fidget with objects

#### Movement

I find it difficult to keep still & often fidget or rock

#### **Proprioception**

I like chewing on objects

#### Taste/Smell

I particularly like crunchy or chewy foods

#### Help them by creating:

- A creative space with a lot of potential to expand.
- A safe environment for the expression of a lot of intonation and gestures.
- Assignments with multiple steps at once.
- Opportunities to generate new ideas and develop and implement the ideas.
- Opportunities where they are involved with new development.

#### Teach them to:

- Organise their space, e.g. with a colour code system or another easy to use system.
- De-clutter their environment regularly, to avoid the build-up of chaos.
- Respect the work schedule and to not disrupt it unnecessarily.

They are spontaneous, creative, changeable and enjoy trouble shooting.

# Sensory avoiding

"Avoiders are very steadfast about their life-management strategies. They find strategies that minimise sensory input and use them in the exact same way every single day because to deviate is to introduce unknown sensory input." <sup>3</sup>

When a pupil is sensitive to sensory input one of the strategies they use to manage it is to **actively avoid** the activity/situation/environment that contributes to them experiencing the sensory input they are sensitive to. This can be problematic in a classroom situation as they are expected to attend and participate in all lessons in various different environments.

The pupil will present with the 'flight' response as they are trying to avoid or get away from the situation/ environment that is contributing to them becoming dysregulated and anxious. For example, a pupil will "shut down" and stop listening if a teacher's voice bothers them too much.

# Building understanding of how to help people who tend to avoid or flee situations to learn and adapt in everyday life

#### **Auditory**

I am bothered by the noise in assemblies, etc.

#### Visual

I get frustrated when I read

#### **Tactile**

I dislike it when people touch me unexpectedly

#### Movement

I have a fear of heights, lifts and escalators

#### **Proprioception**

I don't like physical activities & don't enjoy team sports

#### Taste/Smell

I am bothered by & avoid certain food textures

#### Help them by creating:

- Clear routines to help them know where they are in the process.
- Clear schedules and plans of when work is due and how much time is available to complete tasks.
- Short and to the point instructions.
- Alternative ways to communicating if they find face-to-face communication with staff and with other people too difficult, e.g. email or text.
- Transparency by often doing things in the same way and order.
- Responsibilities where there is order and routine,
   e.g. help set up the classroom for certain activities.
   For example in chemistry, art, food technology, etc.

#### Teach them to:

- Work in teams as they want to work in isolation.
- Communicate in different ways as this is very difficult for them.
- Be spontaneous and impulsive at times, changing something that will not cause too much upset.
- Intentionally plan time to connect with people, even if it is one person at a time.
- Plan and use their time in a balanced manner and not focused on one thing all the time.

They are good at following procedures and prefer structured tasks and enjoy trouble shooting.

# Thinking skills

"Our perception of what is going on around us influences our thinking skills. When we think about perception we have to examine the gap between "what is" and what we know. Certain animals for example hear sounds and smell odours that are not apparent to humans.

There is much more going on in the world around us that we are able to experience with our limited senses and our idea of reality is in fact only a partial one. We attach meaning to our experiences by a process of selection, organisation and interpretation." 8

There are differences in **how and what people perceive** and for pupils who experience difficulties with sensory processing these differences are more pronounced and occur more often.

#### Strategies to help pupils to develop THINKING skills

#### I like to do things in the same way and I enjoy the challenge of solving problems

- Build a story in the classroom where every pupil has to add a line to the plot, even if the story does not make complete sense, to stimulate listening and thinking skills.
- Challenge the pupil to think of different ways to do things, i.e. an assignment, a different angle to solving a problem, etc.

#### I struggle with unexpected changes and prefer to be in control and know what to expect

- Help pupils to become unstuck from their current place by helping to visualise the "next step" and or a new scenario.
- Provide step-by-step instructions when the pupil has to complete a task to help them "see" what is next, in order to help them move on.

#### I prefer spending time with activities instead of people and I feel stressed

- Help pupils, especially in drama, to have a specific script that helps them interact with a person through stories, playing a part in a story, then challenge them to practice it during the week.
- Help pupils to know what their body language should look like when they listen to someone.
- Help the pupil identify what their stressors are and identify helpful strategies.

#### Strategies to help pupils to develop THINKING skills

#### I prefer reading books on non-fiction rather than fiction

- Help pupils see that fiction helps to understand the complex emotions and behaviour
  of the people around us, the different ways in which people could react and the
  reasons behind their reactions.
- Read a fiction book in class and discuss the reason for the conflicts and choices the people are making in the books.

#### I have often been told what I say is impolite

• Use scenarios of polite and impolite sentences to help pupils understand what being impolite means, how they can choose what they say and to think before they speak.

#### **Connection skills**

"For a relationship to exist, people must be aware of each other and take each other into account. At least one person must affect the other in some way and there are usually shared relational definitions built on the social form and expectations around the people.

Relationships are a process that changes over time." 8

Many pupils with sensory processing difficulties will **struggle with connection to other people** as they find it difficult to connect with and know themselves.

#### Strategies to help pupils to develop CONNECTION skills

#### I find it difficult to concentrate the whole time in class and I feel confused

- Help a pupil to concentrate by limiting distractions and creating a safe space for learning.
- Try to identify what about the work or which part of a task is confusing for the pupil.
- Use different ways and strategies, e.g. visual pictures, to explain work/instructions to the pupil.

#### I find it difficult to make eye contact and I feel frustrated

- If pupils feel it will help them during social situations, they can practice looking above a person's head for it to appear like they are making eye contact.
- Increase knowledge amongst teachers that many pupils concentrate and listen better when they are not making eye contact and that eye contact increases anxiety.
- Try to identify why a pupil becomes frustrated in a certain situation or with a certain task.
- Some pupils might benefit from time away from the classroom or task if they become frustrated in order to regulate.

#### I struggle to imagine the characters in stories and I feel embarrassed

- Teach a pupil to visualise by helping him think about himself using all his senses, what does his eyes look like, what can he hear with his ears, what is he thinking when he is in a specific scenario and how does it make him feel.
- Repeat this process with another pupil in the group, but help everyone to think together and then transfer it to a character in a book and allow everyone to come up with what they think the character would look like and what emotions the character might feel.

#### I feel anxious in new situations and I feel nervous

- Teach deep breathing and relaxation exercises.
- Role-play possible scenarios or new situations that make the pupil anxious and practice practical application and escape plans when confronted with these situations. Allow the pupil to observe rather than having to participate as it might make them more anxious.
- Develop game plans for interactions between pupils and staff, especially when there are high anxiety levels present.

#### Strategies to help pupils to develop CONNECTION skills

I struggle to understand sarcasm and hidden meanings and misunderstand what people say

- Provide examples or role-play social situations using sarcasm and explain the meaning of it.
- Provide fun competitions or tasks to use and play with different words and look up the meaning of words in dictionaries and thesauruses to enhance the pupils' vocabulary in order to help them understand the meanings of words.

#### I don't enjoy social situations or gatherings

- Teach pupils strategies to use before, during and after engaging in social situations. For example, acknowledging that the situation might be difficult for them but knowing that they only have to tolerate it for a certain amount of time.
- Realising that some pupils might need some time alone to recuperate from social gatherings. For example, attending an assembly can be so overwhelming that it can impact the pupils' ability to engage in the next few lessons after the assembly. Some pupils may be unable to attend.
- Allow the pupil to leave the situation for a break or to arrange for them to only attend it for a set (and brief) period of time.
- Use deep breathing and other relaxation techniques throughout their engagement in the social situation.

# **Communicating skills**

"For the part of the brain that handles language and speech to function well, it is particularly important that it have good connections with the rest of an efficiently functioning brain, especially the sensory and motor sections. Good whole-brain processes enable the child to motor plan easily and efficiently.

Talking and in particular learning to talk, requires very complex motor planning. It requires the ability to initiate a motor act on one's own inner command. Then one must arrange the sequence of movements to make the sounds form a word. In one's brain one must decide which word follows which. Specific movements of the mouth, tongue and lips are needed for good articulation." <sup>5</sup>

A pupil's ability to communicate is impacted by their **regulation**. For example, a pupil might have good communication skills but when their sensory systems feel overwhelmed, or they feel anxious due to any other reason, they will begin to feel dysregulated and their ability to communicate efficiently becomes compromised.

#### Strategies to help pupils to develop COMMUNICATION skills

#### I struggle to keep a conversation going

- Practice writing dialogues and or help pupils to read scripts with dialogues.
- Help pupils to think about the five questions: who?, what?, where?, when?, why? and how?; and to ask these questions to begin a conversation.
- Help them to try and find one key word that they can ask about again if someone speaks.

#### I struggle to understand what someone is feeling just by looking at their face

- Teach pupils how to identify emotions and how to respond to the emotions in the classroom.
- Teach pupils to ask questions, e.g. "Am I understanding you correctly, is this what you mean?"

#### I like being alone and I don't like conflict and tend to avoid it

- Teach pupils about the reason for conflict, strife and anger to help them understand where conflict comes from and that it is not necessarily personal.
- Teach pupils to brainstorm problem solving techniques to help them think about solving problems instead of being overwhelmed by conflict.
- Help pupils to know what to say and do when they are being bullied.
- Teach pupils that it is OK to want to spend time by themselves, but also highlight the
  importance of social interaction and help them identify and practice strategies to enable
  them to find it easier to engage in social situations. This should be done on a case-bycase basis as some pupils might find this too stressful and increase their anxiety.

#### Strategies to help pupils to develop COMMUNICATION skills

#### I struggle to ask for help

- Teach pupils how to ask for help with role-play scenarios, if they feel they can engage otherwise they can observe.
- Use a system where a pupil can place an object or turn over a card from green to red on their desk, to indicate that they require help. If a teacher is aware that a particular pupil struggles to ask for help and to use any of the suggested strategies then they can check in with that pupil after a lesson, or by email, to ask whether they understood the work and give them the opportunity to ask questions without everyone in the class being present.

#### I struggle to deal with my emotions

• Use frameworks such as The Zones of Regulation<sup>9</sup> to help pupils identify and manage their emotions.

#### I enjoy talking and find it difficult to let others speak

- Teach pupils to listen well. For example take turns to listen and using strategies to practice this.
- Help pupils that struggle with impulse control in terms of wanting to shout out
  answers when they are not asked, to develop a strategy for them to be able to wait
  a while and not answer immediately or other strategies such as writing down the
  answer in case they worry they will forget it.

# **Interoception**

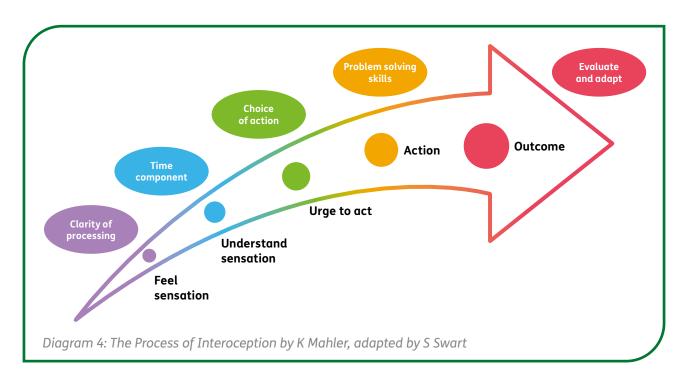
The interoceptive system relates to **our ability to feel what is happening inside our body**. The receptors for this system are located in the organs, muscles and skin. It provides information about **internal regulation**, for example when we feel thirsty, hungry and full, regulating body temperature, heart and breathing rates, social touch, muscle tension, itching, feeling nauseas and regulating sleep <sup>10</sup>.

The body is programmed to remain in an optimal internal balanced position and this explains why the brain monitors the incoming interoceptive signals in order to adapt unconscious and automatic to prepare the body for a fright, flight, freeze or fight response.

An example of this is the **urge to act in anticipation of nervousness** <sup>11</sup>. A person will **feel a sensation** of shaky muscles, a faster beating heart, upset stomach and a tight chest. The body will **understand this sensation** and interpret it as feeling nervous, even though the mind may or may not completely comprehend this. This will result in an **urge to act**.

This is where a person may be able to **think about their choice of words or actions** if there is enough time and or if they had an opportunity to go through a similar experience and they were able to respond and learn from the event. Then an **action** will follow, either automatically where the body stretches and breathes deeper and or thinking about how to make plans before acting.

The outcome will then be a change in a persons' body, emotions, thoughts, actions and or words as the brain learns from this experience. A persons' ability to **evaluate and adapt and learn** from this experience will depend on their availability to think through what happened by themselves and/or with help from those around them.



Interoception helps us to **learn about our emotions** through the physical sensations in our bodies. For example feeling 'butterflies' in our tummy when we are nervous. This occurs due to the body noticing internals signals/sensations and connecting these sensations to emotions <sup>10</sup>. Interoception impacts our ability to **self-regulate**, which is our "…ability to identify and manage…" how we feel <sup>10</sup>.

Sometimes the signals/sensations are too strong or there are too many, other times they are too weak or they are unclear regarding the origin or type of sensation. This can impact a pupils' ability to experience and express emotions and their ability to self-regulate, as they might not be receiving sufficient information or the correct information internally to help them identify their emotions. This then results in them being unable to manage and regulate their emotions. Inability to regulate or dysregulation is most often seen in the pupil's **behaviour**.

#### I feel angry:

Anger is a strong feeling of displeasure towards some real or supposed grievance. It may cause a feeling of **light-headedness** and or **headaches**, increased **breathing** and **heart rate**, clammy and or flushed **skin**, tightness in the **stomach** and tension in the **muscles**, resulting in clenched **hands and fingers** and a tight **jaw**.

#### Strategies:

- It is unproductive to confront/challenge the pupil whilst they are angry as they are unable to think and respond logically and a confrontational approach might inflame the situation.
- Allow the pupil to leave the classroom/environment in order to calm down in a safe and private space.
- Once the pupil is calm, have a discussion with them to identify what in the situation and or environment they think contributed to them becoming angry.
- Try to identify strategies with the pupil that they might find helpful in future situations. For example, requesting to leave the environment if they start to become upset to avoid it escalating, using sensory strategies to feel calmer, etc.
- Use frameworks such as the Zones of Regulation to help pupils identify their triggers and strategies to help them feel calmer.

#### I feel confused:

Confusion is an inability to think or act clearly and with understanding. It may lead to a feeling of disorientation, breathing may be shortened and heart rate too fast/too slow, muscles may feel wiggly resulting in fidgeting of the hands, fingers and feet.

#### **Strategies:**

- Provide pupils with subtle opportunities to indicate if they do not understand concepts being explained in class or follow-up after lessons with pupils known to struggle, as many pupils do not feel able to ask for help in front of other pupils.
- Try to get the pupil to identify what they feel they don't understand.
- Use different perspectives to explain concepts.
- Encourage the pupil to use sensory strategies to feel calmer and increase focus.

#### I feel embarrassed:

Feeling embarrassed means that there is a cause to experience a state of self-conscious distress because of self-doubt. This may lead to feeling dizzy, ears, cheeks and skin feeling hot and flushed; the mouth may feel dry, the skin sweaty, with shortened breathing and the heart pounding.

#### **Strategies:**

• If a pupil is prone to feeling embarrassed easily they should not have attention directed to them and put 'under the spotlight' as this will increase the sensations they experience and could lead the pupil to feeling anxious. Examples of this include: requesting a pupil read aloud; demonstrating a task to the class; showing a working on the board; calling upon a student who looks distracted, zoned out.

#### I feel nervous and or stressed:

Feeling nervous means that a pupil is anxious, worried or slightly frightened about something that they are going to do or experience. This may lead to a feeling of **distraction and tenseness**. The ears may be more sensitive, the skin may be clammy, **breathing** may be tight and the **heart rate** fast. The **stomach** may feel nauseous and the **muscles tense** and sore, resulting in clenched and fidgety **hands, fingers, feet and toes.** 

Feeling stressed is a condition or feeling experienced when a pupil perceives that demands exceed the personal and social resources the pupil is able to access. This may lead to a feeling of being **stuck**. The **ears** may appear 'shut-off'/not listening. The mouth may be dry, the **skin** dry/sweaty and the **breathing** short. The **heart** may be pounding and the **stomach** tight. The **muscles** may appear tight and tense, the **hands and fingers** fidgety; and the **feet and toes** tapping.

#### Strategies:

- Unnecessary demands should not be placed on the pupil that will increase their levels
  of anxiety. This might be difficult in a classroom environment and accommodations
  will have to be allowed for the pupil to sometimes leave the classroom to regulate
  their anxiety before trying to return to complete their work.
- Sensory strategies such as using fidgets in class and teaching the pupil breathing techniques could help them regulate their anxiety levels in the classroom in order to help them focus on the lesson and remain in class for longer.
- Use frameworks such as the Zones of Regulation to help pupils identify their triggers and strategies to help them.

#### I feel tired and need to sleep:

Feeling tired means a person is drained of strength and energy and may experience fatigue often to the point of exhaustion. This may lead to a feeling of **blankness**, the **ears** may feel shut-off, **breathing** may appear laboured, the **heart rate** fast and the **stomach** heavy or nauseous. The **muscles** may be sore, hot and burning and the **hands**, **fingers**, **feet and toes** sweating.

#### Strategies:

- The pupil might need more breaks compared to other pupils as their level of endurance is impacted by feelings of tiredness. This will impact their ability to concentrate in academic lessons and their level of endurance during lessons such as PE.
- The pupil might appear fidgety in their attempt to keep their mind focused and awake. They should therefore be allowed to use sensory fidgets in the classroom to help them remain awake and focused.

# **Appendix A: Sensory Preference Checklist**

# **Enabling Environments**

# **Sensory Preference Checklist**

Please complete the questionnaire by making a tick to indicate how often the statements in each section apply to you. At the end of each section you can add anything else that you feel will be important to know about. There are no right or wrong answers. This questionnaire is about how you experience your sensory environment in general at school.

Never	0% of the time
Rarely	25% of the time
Sometimes	50% of the time
Often	75% of the time
Always	100% of the time

Αι	ıditory system - noises in your environment	Never	Rarely	Sometimes	Often	Always
1	I like to do things the same way					
2	I miss verbal instructions					
3	I work better when I listen to my music					
4	I get distracted by sounds in my environment					
5	I am bothered by the noise levels in assemblies, break times and lunch times					
6	I easily get a fright at loud and unexpected noises					·
7	I struggle to keep a conversation going					

Visu	al system - everything you can see	Never	Rarely	Sometimes	Often	Always
8	I miss written instructions					
9	I struggle to keep myself organised					
10	I am bothered by bright overhead lights/sunlight in the classroom					
11	I enjoy being in places that are visually busy, e.g. dining hall					
12	I find it difficult to make eye contact					
13	I struggle to understand what someone is feeling just by looking at their face					
14	I become frustrated when I read, because letters move around or blur					
15	I am bothered and get distracted when there is movement/reflections of lights near me					
16	I can easily recognise patterns in things					
A my	thing also you would like to tall us?					

Anything else you would like to tell us?

Tact	ile system - textures and touch experiences	Never	Rarely	Sometimes	Often	Always
17	I am bothered by certain textures of clothing / materials / objects / temperature					
18	When I read a story, I struggle to imagine what the characters might look like					
19	I don't notice when my hands or face are dirty					
20	I fidget with objects, e.g. pencils, paperclips					
21	I don't like it if my hands get dirty					
22	I dislike it when people touch me unexpectedly					
23	I like being alone					
24	I am unaware of temperature or pain					
25	I prefer to spend time on activities that don't involve people					

Vest	tibular system - movement experiences	Never	Rarely	Sometimes	Often	Always
26	I feel anxious in new situations					
27	I become dizzy easily and often lose my balance					
28	I like to move as much as possible and seek opportunities to do this					
29	I struggle to keep still and need to rock or fidget					
30	I have a fear of heights, lifts, escalators					
31	I get lost easily					
32	I prefer reading books on non-fiction subjects rather than fiction					

Anything else you would like to tell us?

Prop	prioceptive system - muscle movements	Never	Rarely	Sometimes	Often	Always
33	I struggle to understand sarcasm and hidden meanings					
34	I am clumsy and tend to bump into or drop things					
35	I like chewing on objects					
36	I don't like physical activities, for example I struggle to catch a ball					
37	I feel physically tired					
38	I move chairs roughly or open and close doors too hard					
39	I don't enjoy team sports					
40	I find it difficult to imagine what it would be like to be someone else					

	e/Smell systems - tastes & smells in your ronment	Never	Rarely	Sometimes	Often	Always
41	I enjoy talking and find it difficult to let others speak					
42	I am bothered by smells that others don't notice					
43	I prefer to eat the same foods					
44	I particularly like crunchy or chewy foods					
45	I have often been told that what I say is impolite, even though I actually think it is polite					
46	I am bothered by and avoid certain food textures					
47	I don't enjoy social situations and find social gatherings difficult					

Anything else you would like to tell us?

Self	-awareness - your everyday emotions	Never	Rarely	Sometimes	Often	Always
48	I find it difficult to concentrate for the whole time					
	in class					
49	I feel frustrated					
50	I find it difficult to manage unexpected changes					
	to my day					
51	I feel confused					
52	I enjoy the challenge of solving problems					
53	I feel embarrassed					
54	I don't like conflict and tend to avoid it					
55	I feel nervous					
56	I struggle to ask for help					
57	I feel stressed					
58	I have headaches during school time					
59	I misunderstand what people say to me					
60	I prefer to be in control and know what to expect					
61	I struggle to deal with my emotions					

#### Now please complete the interpretation sheet

Please use some colours and highlight on the interpretation sheet all the areas where you selected **often** and **always** on your checklist.

- You will find that all the sentences from each **sensory system** on the checklist are written on the interpretation sheet in line with the corresponding sensory system. For example, everything under the auditory system on the checklist is written in line to the right hand side of the word 'auditory' on the checklist.
- The only section where this is different is the section on **self-awareness**. You will find the corresponding sentences from that section on the interpretation sheet under the headings **Thinking skills**, **Connecting skills** and **Communicating skills**. Sometimes the sentence might be a bit shorter on the interpretation sheet compared to the checklist.

# Appendix B: Interpretation Sheet

# Sensory Preferences Interpretation **Enabling Environments**

Please complete the interpretation sheet by highlighting all the areas where you selected **often** and **always** on the checklist

Name:

Date

System	Registration/ Freeze	Sensitive/ Fright	Seeking/ Flight	Avoiding/ Fight	Thinking skills
Auditory	• I miss verbal instructions	<ul> <li>I get distracted by sounds in my environment</li> </ul>	I work better when     I listen to music	<ul> <li>I am bothered by the noise level in assemblies, break &amp; lunch times</li> </ul>	I like to do things in the same way     I enjoy the challenge of solving problems
Visual	<ul> <li>I miss written instructions</li> <li>I struggle to keep myself organised</li> </ul>	I am bothered by lights in the classroom I am bothered & distracted by movement/reflections of light	Ienjoy being in places     that are visually busy	• I get frustrated when I read	I find it difficult to manage unexpected change     I prefer to be in control & know what to expect
Tactile	<ul> <li>I am unaware         of temperature         and pain         I don't notice when         hands/face are dirty</li> </ul>	I am bothered by certain textures of clothing/materials/ temperature I don't like it if my hands get dirty	Indget with objects	I dislike it when     people touch me     unexpectedly	I prefer spending time with activities instead of people     I feel stressed
Movement	• I get lost easily	• I get dizzy easily & often lose my balance	I struggle to keep still and need to fidget or rock     I like to move	• I have a fear of heights, lifts, escalators	non-fiction rather than fiction
Proprio	I am clumsy & bump into things/drop things Moving chairs roughly/ open & close doors too hard	• Ifeel physically tired	• I like chewing on objects	<ul> <li>I feel I don't like physical activities</li> <li>I don't enjoy team sports</li> </ul>	In a it difficult to imagine being someone else In have headaches at school
Taste/Smell	• I prefer to eat the same foods	<ul> <li>I am bothered by smells that others don't notice</li> </ul>	I particularly like crunchy or chewy foods	<ul> <li>I feel I am bothered by &amp; avoid certain food textures</li> </ul>	• I have often been told what I say is impolite

	Thinking skills	Connecting skills	Communicating
	<ul> <li>I like to do things in the same way</li> <li>I enjoy the challenge of solving problems</li> </ul>	Ifeel confused     Ifind it difficult to     concentrate the whole     time in class	<ul> <li>I struggle to keep a conversation going</li> </ul>
**	<ul> <li>I find it difficult to manage unexpected change</li> <li>I prefer to be in control &amp; know what to expect</li> </ul>	I find it difficult to make eye contact I feel frustrated I easily recognise patterns in things	<ul> <li>I struggle to understand what someone is feeling just by looking at their face</li> </ul>
	<ul> <li>I prefer spending time with activities instead of people</li> <li>I feel stressed</li> </ul>	I struggle to imagine characters in stories     I feel embarrassed	<ul> <li>I like being alone</li> <li>I don't like conflict</li> <li>and tend to avoid it</li> </ul>
	<ul> <li>I prefer reading books on non-fiction rather than fiction</li> </ul>	I often feel anxious in new situations     I feel nervous	• I struggle to ask for help
	<ul> <li>I find it difficult to imagine being someone else</li> <li>I have headaches at school</li> </ul>	I struggle to understand sarcasm & hidden meanings     I misunderstand what people say	<ul> <li>I struggle to deal with my emotions</li> </ul>
	<ul> <li>I have often been told what I say is impolite</li> </ul>	<ul> <li>I don't' enjoy social situations or gatherings</li> </ul>	<ul> <li>I enjoy talking &amp; find it difficult to let others speak</li> </ul>









# **Appendix C: Sensory Fidgets Ideas**

- Stress balls
- A chain of paper clips
- Mini erasers
- Soft kneaded erasers
- Blu Tack
- Pencil grips
- Chewable pencil topper
- Stretchy toys
- Bendable toys
- Tangles can be paperclip chains
- Fidget cubes
- Spinning rings
- A few small Lego blocks
- Rubber bands wrapped around a pencil
- Doodling whilst listening in class
- Smooth stones/pebbles/marbles to manipulate
- Snapping/fidgeting with a rubber band on their wrist
- Twisting or playing with own hair
- Fidgeting with a pen or jewellery
- Rub gently on skin/clothes

(12) (13) (14) (15) (16)

#### References

- 1. **Bundy, A., Lane, S. & Murray, E. eds.** *Sensory Integration Theory and Practice.* Philadelphia: F.A. Davis Company, 2002.
- 2. Mallory, C. & Keehn, B. Frontiers in Psychiatry. 2021.
- 3. **Dunn, W.** *Living Sensationally, Understanding your Senses.* London : Jessica Kingsley Publishers, 2008.
- 4. **Sylvia.** How does Sensory Processing differences affect Learning and School Life for Pupils with ASD? [Online] 2021. <a href="https://www.healisautism.com/post/how-sensory-processing-differences-affect-learning-school-life-pupils-asds">https://www.healisautism.com/post/how-sensory-processing-differences-affect-learning-school-life-pupils-asds</a>
- 5. **Ayres, A. J.** Sensory Integration and the Child. 25th Anniversary Edition. USA: Western Psychological Services, 2005.
- 6. **Hopper, D.** School Environment Sensory Checklist: Creating Optimal Learning Environments for all children. Life Skills 4 Kids, 2017.
- 7. Simpson, S. Environmental Checklist for Autism Spectrum conditions. [Online] 2009.
- 8. Adler, R.B., Rosenfeld, L.B & Towne, N. Interplay, the process of Interpersonal Communication. 6th edition. Florida USA: Harcourt Brace College Publishers, 1980.
- 9. **Kuypers, L.** The Zones of Regulation: A Curriculum Designed to Foster Self-Regulation and Emotional Control. San Jose, CA: Think Social Publishing, Inc., 2011.
- 10. **Mahler, K.J.** The Interoception Curriculum: A Step-by-Step Framework for Developing Mindful Self-Regualtion. 2019.
- 11. Mahler, K.J. Interoception, The Eight Sensory System. AAPC Publishing, 2017.
- 12. WeAreTeachers Staff. [Online] 2021. https://www.weareteachers.com/fidget-toys/
- 13. **Beck, C.** Classroom Sensory Strategies Toolkit. [Online] 2018. https://www.theottoolbox.com
- 14. **Sabiston, N.** Teaching in progress. [Online] 2015. <a href="http://www.teachinginprogress.com/2017/05/25-fidgets-to-use-instead-of-spinners.html">http://www.teachinginprogress.com/2017/05/25-fidgets-to-use-instead-of-spinners.html</a>
- 15. **Williams, M.S. & Shellenberger, S.** How does your Engin Run? A Leader's Guide to the Alert Program for Self-Regulation. Alburquerque, NM TherapyWorks, Inc, 2009.
- 16. **Moore, K.M.** The Sensory Connection Self-Regulation Workbook. Learning to use Sensory Activities to manage Stress, Anxiety and Emotional Crisis. Franconia, NH The Sensory Connection Program, 2008.
- 17. Dunn, W. Sensory Profile2. PsychCorp, 2014.

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