SENSORY PROCESSING RESOURCE PACK: EARLY YEARS

Working with Children with Sensory Processing Differences in Early Years Settings

For those working within an Early Years setting or Health Visitors who work with families who may have young children showing signs of sensory processing differences.

This resource pack will assist with the identification of possible difficulties and support the implementation of strategies.

This resource pack is the result of collaboration between Leicestershire Partnership NHS Trust, Leicestershire County Council, Leicester City Council, Rutland County Council and the Leicestershire Parent Carer Forum.

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USING THIS RESOURCE

HOW TO USE THE CHECKLIST

The observation checklist (see APPENDIX 1 on page 42) is to be used as an observation tool in order to monitor any sensory difficulties that children may be experiencing. It is not to be used as a formal assessment.

This tool will help to identify if a child is showing particular difficulties in one or more of the seven senses. In order to ascertain difficulties are not due to other factors that may present in a similar way further more detailed specialist assessment may be required.

It is recommended that the facilitator of this tool ensures they have a holistic picture of the child that they are observing and that the child's parents and all settings the child attends are consulted before any conclusions are made with regards to gathering evidence when making a referral to other services.

If many difficulties in one or more particular sensory area are highlighted then further advice or a referral may be sought (see section on Further Support and Advice on page 36). The strategies described in this resource pack may begin to address these difficulties using the suggested play activities and strategies.

It is also suggested that if limited difficulties are shown in the seven areas that by using the play strategies tool we can begin to address these issues and closely monitor any changes in the behaviour. However if the facilitator is in any doubt further advice should be sought.

HOW TO USE 'WAYS TO HELP'

This section identifies differences you might observe and some suggested activities/teaching strategies that may help.

Listed are *some of the most common sensory issues*, however a child may have other sensory issues that are not listed in this resource pack and it is always a good idea to talk with the parent(s) about anything that may be a worry so that support can be offered should this be appropriate.

The numbered column refers to the number on the checklist (see Appendix 1 on page 42) and may assist in devising the individual action plan for that child.

If in doubt with any strategy needed for a child in your setting, Advice from Autism Outreach and/or Occupational Therapy should be sought (availability and referral criteria to be determined following consultation).

This resource pack includes strategies to aid sensory processing. This is not Sensory Integration Therapy which needs Occupational Therapist be undertaken by a Qualified Practitioner with Advanced Knowledge of Sensory Integration Theory.

IMPLEMENTING THE STRATEGIES

All the senses interlink with each other's so it is therefore important to ensure that you consider all of the senses before using one particular suggestion e.g. a child who doesn't like to have their nappy changed may find it both difficult to feel safe undressed when laying down and also dislike the feel of a cold mat beneath them.

There are other health and safety factors to remember to. Please check what physical handling policy your setting has and gain parental permission/setting permission before undertaking any form of massage on a child.

ACCESSING THIS RESOURCE PACK

Copies of this pack are available on the following websites:

Leicestershire Partnership NHS Trust

Website: www.leicspart.nhs.uk

Leicestershire County Council

Website: www.leics.gov.uk

Leicester City Council

Website: www.leicester.gov.uk

Rutland County Council

Website: www.rutland.gov.uk

WHAT IS SENSORY PROCESSING?

Sensory processing refers to how we use the information provided by all of the senses within our body and from our environments.

All of the information is received, processed and integrated to give us an understanding of who we are, where we are and what is happening around us.

When our senses are integrated correctly we are able to respond appropriately to the sensation. For example we will take off the itchy woollen jumper or we may take a deep breath to smell the flowers.

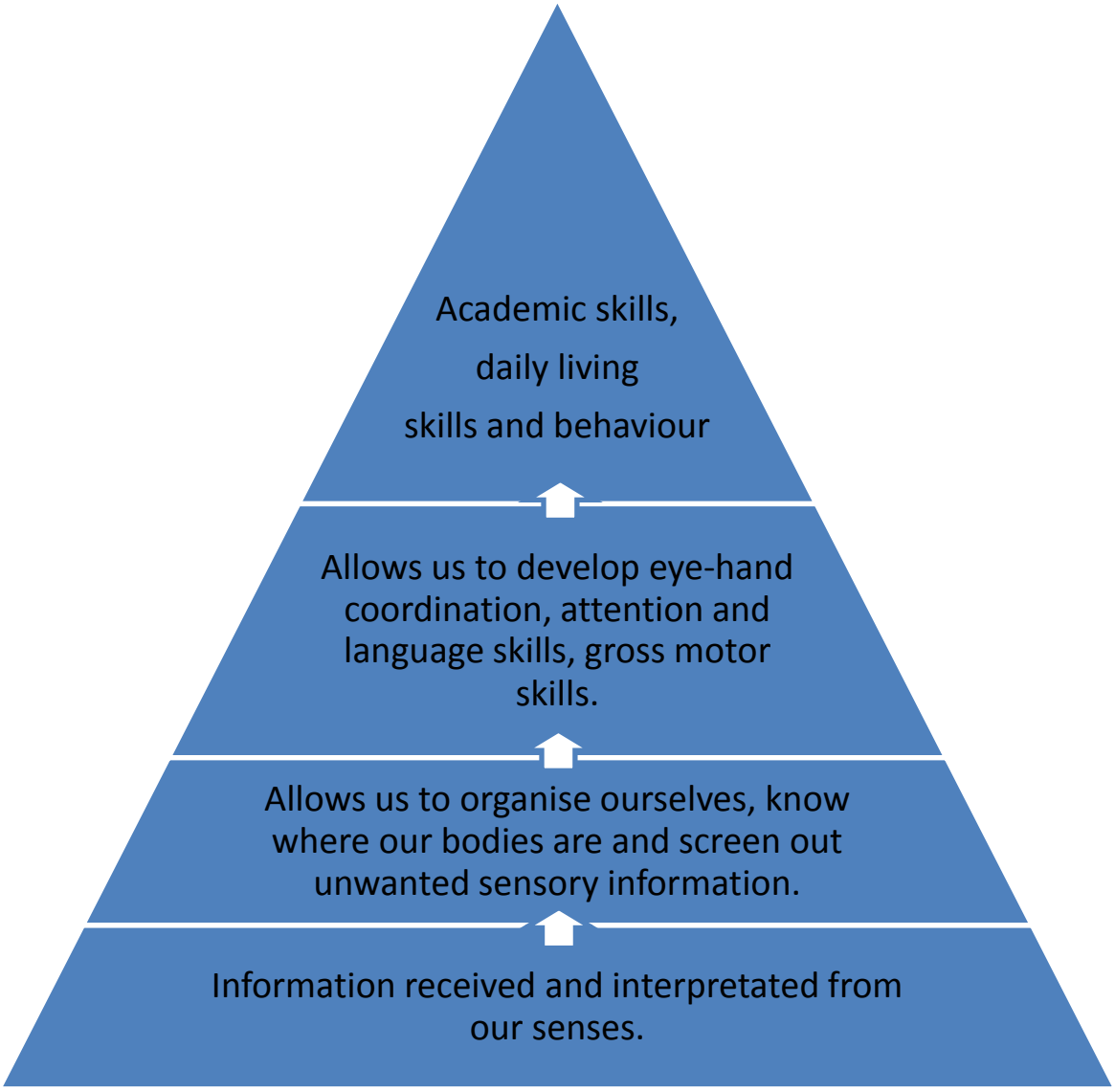
WHAT HAPPENS WHEN A CHILD EXPERIENCES SENSORY PROCESSING DIFFERENTLY?

Children who have sensory processing difficulties may have difficulty in figuring out what is happening inside and outside of their bodies. The sensory information their body is registering may not be accurate.

Imagine how it might feel at pre-school when the pictures on the wall repeatedly grab your attention as their brain doesn't register that this has been seen before. When every child around you makes you on 'high alert' just in case someone brushes past you as this could be painful. Putting on socks is very difficult as you cannot balance, and don't know how to move your hands to your feet accurately. Their bodies aren't providing adequate information as to where their arms and legs are so they need to move to get that extra feedback.

There seems to be some faulty wiring somewhere, most people get used to their own sensory preferences and make choices about their daily activities appropriate to them. However, children tend to go with their instincts and may struggle to communicate how they feel, they may be disorganised in a world they can't quite make sense of. These children need support from those around them to learn strategies and consider their needs to make life just that little bit.

These senses are the building blocks for all other skills we learn and use in life:



Adapted from Williams and Shellenberger (1994).

There are seven senses explained in this resource pack, Tactile, Taste, Smell, Vision, Auditory, Proprioception and Vestibular.

Each sense has its own section which is divided into:

- A description of the sensory system.
- What happens when a child experiences this differently?
- Ways to help – suggestions on strategies/activities that may help.

TACTILE (TOUCH)

The Tactile system has two functions, one for protection and one for added detail, development of precision skills.

PROTECTIVE

Our skin has receptors within it that respond to pain, temperature and light touch. This alerts us to potential threats and allows us to react appropriately. The information is interpreted and our brain then decides as to how we should act.

DISCRIMINATIVE

Our skin is our largest most sensitive organ; it has different receptors that give more detail about what the skin is feeling. This also responds to pressure applied to the skin. Through touch we gain information about where and how our bodies are positioned. We get information about objects and our environment and to develop refined fine motor skills.

With smoothly operating **protective and discriminative** touch a child will be comfortable and willing to interact with objects and people and will be in a perfectly alert, yet calm state to learn.

WHAT HAPPENS WHEN A CHILD EXPERIENCES TOUCH DIFFERENTLY?

One of the most common sensory difficulties is being **overly sensitive to touch.** These children may show the following behaviours in pre-school:

- Withdraws from cuddles.

- Easily ticklish.
- Does not tolerate loose clothes.
- Appears to overreact when hurt in playground.
- May walk on tiptoes on certain surfaces.
- Avoids messy play.
- Finds nappy changing distressing.

A child may also be **under sensitive to touch.** These children may show the following behaviours in pre-school.

- Does not notice when they are messy or have food around mouth.
- Doesn't show distress when hurt.
- Needs to be wrapped up tight.
- Wraps self in blankets in home corner.

WAYS TO HELP – TACTILE (TOUCH)

Area	Difference Identified	Suggested activities/teaching strategy
1	Avoids holding hands with adult or other children.	• Use a no-pressure approach and allow child to watch from a distance when their peers are taking part in hand holding games. • See if the child will tolerate you holding on to their sleeve or arm. • Expose the child up to a variety of different tactile experiences e.g. wiggly toys, water play etc.
2	Withdraws from a cuddle.	• Build up fun interaction on a 1:1 with the child with no touching involved. • Experiment with a variety of different touch for example try a firmer hug rather then light touch or vice versa. • Use objects instead of 'skin to skin' contact e.g. roll a ball over their hand/body.
3	Finds a 'light touch' uncomfortable.	• Use deep pressure massage techniques. • Try dance massage. • Hot dog game. Adding different motions for onions and sauce etc.
4	Seems ticklish every time touched without clothes on.	• Use all of the above suggestions ensuring the child is fully clothed until they have built up trust with you. Gradually remove a sock or jumper. • Use firm touch. • Foot massage using a foot massager: JC/SI/08
5	Craves rough and tumble play.	• Build more gentle play sequences into usual rough and tumble play. Include a wind down period in this play and gradually increase this time.
6	Holds people tightly.	• Provide deep pressure at other times. • Use a tight blanket for a hug. • Use 'hands down' and divert child to pressure toys for example squeezy balls with eyes in or encourage to press down on a beach ball.
7	Strips off clothes.	• Try to detect what the issue is....are the tags rubbing? If so remove them.

Area	Difference Identified	Suggested activities/teaching strategy
		• Stick to familiar, acceptable clothing gradually introduce new garments for short periods. • Allow clothes free periods at home. A run around naked after a bath/in bed?
8	Finds some clothes uncomfortable.	• As above but make a note of the clothes he/she won't wear. • Wearing a fitted vest or body stocking can sometimes help to comfort the child against irritating fabrics.
9	Won't tolerate loose clothes.	• Gradually begin to slightly loosen familiar clothing. • Some children feel more secure when they have tighter fitting under garments on such as a Lycra body suit.
10	Gets hot very easily.	• Ensure child's work/sleep area is not near to warm pipes or a radiator. • Social story on taking off their jumper when hot. • Visuals systems to highlight the right time to wear a jumper/coat.
11	Distressed when cold.	• Ensure work/sleep environment isn't near a cold open window. • Again as above for visual systems and social story.
12	Craves heat.	• Provide child with periods of time when he/she can access safe forms of heat e.g. Wheatie microwave teddy, play with warm spaghetti, warm water play.
13	Has a fear of going out in the rain/wind.	• Give child a coping strategy to talk themselves through. "Coat on, hat on, car then heater on..." • Provide child with ears muffs and umbrella. • Headphones with favourite music sometimes helps.
14	Needs to be wrapped up tight to sleep.	• Heavy duvet. • Sheets tucked in. • Wear tighter pyjamas. • Use of a sleeping bag.
15	Finds nappy change	• Ensure mat is not cool and place a towel underneath the child when changing them.

Area	Difference Identified	Suggested activities/teaching strategy
	distressing.	• Determine if the child requires a firm or light touch and use single quick movements. • Team activity with something positive, familiar song or toy.
16	Senses slight wet mark on clothes.	• Play messy games such as water fights and splashing in the puddles where it is acceptable to get wet. • Show child a solution if they get wet they can swap their top for an identical one, dry it off on the radiator then change it back.
17	Scratches away tears when upset.	• Encourage child to press face with a tissue instead of scratching. • Use doll play to model this technique, if child isn't able to tolerate it himself at the beginning.
18	Doesn't show distress when hurt.	• Exposing the child to different variations of touch e.g. light and firm will help the child to learn to identify these different sensations.
19	Walks on tip-toes when bare foot.	• Foot massage. • Tac Pac using a variety of different objects on the feet e.g. brush, feather, ball, carpet square.
20	Walks on tip-toes on certain surfaces.	• As above. • Identify surfaces then incorporate similar textures into a foot massage/play session. • Feet painting. • Bare foot play in soft play/sand etc.
21	Runs sand through fingers continually.	• Experiment with different texture – foam, wet sand, water. • This may be a visual need so therefore encouraging the child to watch it fall in other ways may help. For example through a sieve, in a mill etc.
22	Avoids messy play.	• Incorporate familiar toys into messy play. Use a car in the paint tray. • Do foot painting with Barbie's feet!

Area	Difference Identified	Suggested activities/teaching strategy
23	Plays with/fascination with silky material.	• Allow 'silk' time throughout their day. • Attach a silk square to their clothes. • Increase exploration of other materials/objects.
24	Rubs objects over face/body.	• Turn this motion into a game – imitate the child – gain their eye contact – and move game on gradually to "car down my leg and into the garage!" • Find similar sensations to use at other times. Rub a special piece of fabric/toy or massager.

TASTE AND SMELL

Smell travels directly to the centre in our brain that controls our emotions, memory and learning. Smell is closely linked to our sense of taste, think about how bland food tastes when we have a cold for example.

Our brains are wired so that we are able to respond appropriately to tastes and smells. A bad smell for example doesn't go away our brains just stop noticing it; otherwise we would be totally distracted by it. If we smell burning we know to act on this appropriately.

WHAT HAPPENS WHEN A CHILD EXPERIENCES TASTE AND SMELL DIFFERENTLY?

Again there are two different kinds of difficulties that may occur, the first being an **over sensitivity** to smells and tastes and the second an **under sensitivity** to taste and smell. The later of the two is less common.

Overly sensitive, these children may show the following behaviours in Pre School:

- Becomes anxious at smell of cooking
- Gags on certain foods
- Able to comment on peoples aroma
- Particularly favours certain types of food

- Finds cleaning teeth uncomfortable

Under sensitive, these children may show the following behaviours in pre-school

- Sniffs people
- Smells own faeces
- Smells toys before playing
- Chews mouths everything
- Grinds teeth
- Particularly favours strong flavoured food

WAYS TO HELP – TASTE AND SMELL

Area	Difference identified	Suggested activities/teaching strategy
S1	Becomes anxious by the smell of food cooking.	• Prepare child visually when dinner is soon to be prepared. • Play a smell game, where your child can learn to smell individual pieces of food and label them, this may help your child to remember the different smells.
S2	Gags on smell of someone else's food close by	• Encourage child to smell food related activities e.g. snack time, highlight the smell of the blackcurrant juice and another child's special biscuits. Make it a positive think "mmm this biscuit smells sweet!"
S3	Sniffs people	• Encourage child to sniff adult's wrists often this helps to identify the person better due to fragrances worn. It is also more appropriate to sniff here!
S4	Comments inappropriately of people's aroma	• Alongside the above begin to highlight another significant attribute that person has or wears, so eventually identifying the adult by their jewellery or watch is more important than their fragrance.
S5	Puts objects up his/her nose	• Show child appropriate distance to hold things when smelling them. • Allow them to smell different fragrances on large pieces of fabric to ensure tiny pieces can't get lost up their noses.
S6	Smells toys before playing	• Show them other ways of identifying the toys e.g. by texture. Although this is not a bad way of identifying a toy as long as it again isn't too small and could be inhaled! • Use scratch and sniff books during activity times. • Encourage writing skills by using fragrant pens/crayons.
S7	Smells own faeces	• Replace desire to smell own faeces with other highly fragrance materials e.g. whilst changing nappy allow him/her to hold a ball of strong smelling play-dough or fragrance washable toy

Area	Difference identified	Suggested activities/teaching strategy
T1	Eats non-food items (glue etc)	• When child attempts to bite into a non-food item intervene and replace with a small food item. Have a small box with seal to encourage child they only must eat edible items. • If child simply wants to bite on a toy but not swallow they should be directed to a special box of chewable toys (teethers, rings) each time they put a toy in their mouth that shouldn't be chewed.
T2	Overfills his/her mouth	• This may be a sign of hypo-sensitivity in the mouth, where a child simply cannot sense his mouth has food in it until it's packed full. A Speech and Language Therapist (SALT) may be able to advise on this.
T3	Dribbles excessively	• Again this could be a sign of hypo-sensitivity or oral dyspraxia so it is best to liaise with the child's SALT to eliminate a possible diagnosis.
T4	Chews/mouths everything	• The child could simply still be at the exploratory stage of their play development and like very young children explore object through their mouths. Begin to teach the child to explore the toy through touching with their hands rather than their mouths.
T5	Grinds teeth	• Ensure child hasn't got any dental problems, a referral to a special dentist may be required.
T6	Bites people around him/her for no apparent reason	• Encourage people to approach child slowly from the front, ensuring they do not touch the child as they may be experiencing too much overload from the adult e.g. touch, lack of space as well as demand. • Allow child to wear a small rubber ring that they can divert to if they feel the need to bite.
T7	Finds it hard to co-ordinate mouth when speaking	• Again this may be a sign of oral dyspraxia and investigations by the child's SALT may be required. • This could also be a sign of immaturity of language skills and simply require support with speech and language targets.

Area	Difference identified	Suggested activities/teaching strategy
T8	Licks objects/people	• Diverting the child to a different way of identifying people around them through touch or smell may reduce this.
T9	Appears unaware of small pieces of food in her/his mouth	• Again this is an area which may be due to oral motor co-ordination dysfunction or hypo-sensitivity in the mouth and advice should be obtained from a SALT. • Use of a mirror to show child that they have a piece of food in their mouth could also be useful as often children need to see something to understand it is there.
T10	Eats specific food only (dry, sloppy etc)	• Gentle taste tests, where child can be offered very small pieces of certain foods in between their favourites. • Experimental play with various food materials e.g. wet spaghetti play, dry crunched up crisps etc.
T11	Regurgitates dry foods.	• Providing the child with a drink to help them tolerate dry food or by accompanying their foods with a side portion of sauce appears to aid swallowing dry foods.
T12	Finds cleaning teeth uncomfortable	• A visit to the dentist or referral to specialist dentist may be helpful to rule out any dental problems causing discomfort. • Playing fun imitation games such as “this is the way we clean our teeth on a Monday morning” • Experimentation with a variety of different tooth-brushes, manual or electric. Also theme brushes may prove more interesting for the child e.g. Thomas or Bob the Builder.

VISION

There are different aspects of our visual systems the first is our **eye movements** and the second **visual processing**.

EYE MOVEMENTS

The movements of our eyes are controlled by muscles, these allow us to follow a moving object with our eyes, fix on an object, scan a page of writing and focus our eyes on one object and then move to another and re-focus quickly.

VISUAL PROCESSING

Visual processing is the brain selecting and responding appropriately to visual input. This allows us to process what we see, when we can visually process we are able to concentrate on what we are looking at and not be distracted by other visual stimuli, e.g. pick out picture on the wall amongst several or find a pair of socks in the drawer.

WHAT HAPPENS WHEN A CHILD EXPERIENCES THIS DIFFERENTLY?

If difficulties with **eye movements** exist you may see the following difficulties in the early years settings:

- Focuses on tiny part of object not whole thing.
- Difficulties noticing objects in peripheral vision.
- Difficulty scanning pictures on page.
- Difficulty changes focus from room to paper.

If difficulties exist with **visual processing** you may see the following difficulties in the classroom:

- Gets excited at flashing lights on toys.
- Stares at fluorescent lightings.
- Stimulates self on reflective surface.
- Startled by unexpected light changes e.g. clouds blocking out sun.

WAYS TO HELP – VISUAL

Area	Differences identified	Suggested activity/teaching strategy.
V1	Extended eye gaze.	• A routine check up at the optician may eliminate any visual difficulties. • Use of a magic photo frame could be useful to help the child focus on the movement of the picture and therefore break the gaze.
V2	Focuses on a tiny part of an object rather than the bigger picture.	• Work/play with child in a distraction free area. • Avoid busy backgrounds in books and ensure marks are erased from whiteboards before writing/drawing on them.
V3	Fascinated by tiny threads on the carpet or small patterns.	• Place a large play mat/cloth on the floor to discourage thread pulling this will help the child focus on the toy or task in hand. • Expose child to small sensory play activities such as playing with grains of rice or using rice to make collages etc.
V4	Comments on things we may not see (e.g. pattern resembling something else).	• Tune into your child and encourage them to point to what they can see. This will help you to understand what they are focusing on.
V5	Holds objects close to his/her eye.	• Ensure the child isn't suffering from short sight vision. • Some children find holding their toys closely to their eye helps them to filter out any irrelevant information and focus on what is important to them.
V6	Holds objects in peripheral vision.	• Again, your child may find it clearer looking at this particular angle, so just gentle encouragement to help them focus on the bigger picture gradually without causing too much overload of information.
V7	Gets excited by flashing lights on toys.	• Limiting flashing light toys to use as motivators for short periods.

Area	Differences identified	Suggested activity/teaching strategy.
		• Avoid strobe lighting, especially those that flicker.
V8	Stares at fluorescent lighting.	• Sensory rooms are useful and often relaxing for children that stare at lights. Interaction using switches and voice activated light boards can be useful to encourage less solitary play.
V9	'Stims' on reflective surfaces	• Ensure any laminated visuals are made using matt laminating pouches as some children can get stuck on the reflection of the card rather than focusing on the picture itself. • Fixing pictures to hard card or board can also refrain a child from flicking the symbols instead of looking at what they are informing them about. • Allow periods of sensory play using fibre-optic lights and mirror play ensuring time has a limit to it so child doesn't become too stimulated by them.
V10	Comments on external pattern e.g. every bump or line in the road	• Sometimes this can cause anxiety especially where there is a mix on surfaces to cross, if a child struggles to walk over two joining surfaces, it may be appropriate to invest in a plain carpet runner to cross over these and give the child a clear run on where to walk. • Using footprints also helps the child to feel directed.
V11	Is startled by clouds casting shadows over the room/ground	• Avoid sitting child by a window. • Fitting a blackout blind to bedroom window may help. • Fitting a blind to setting window may help the child to feel more in control of sunlight/clouds.
V12	Stares out of the windows/attracted to natural day-light.	• Sun lamps and sensory room activities are useful motivating activities. • Use of a blind can help adult control when child becomes distracted.
V13	Likes fast motion in films or physical games.	• Use this to your advantage! This is a brilliant way to engage with a child with autism is rough and tumble games. Gradually building in slower and less physical interaction e.g. round and round the garden etc.

Area	Differences identified	Suggested activity/teaching strategy.
V14	Likes to see toys spinning.	• Incorporated spinning in play activities gradually expanding activities e.g. roll it down then….spin until less emphasis is on the spinning and more emphasis in on the function the toy should serve.

AUDITORY (SOUND)

Auditory processing refers to how the brain recognises and makes sense of sounds. Sounds consist of loudness, pitch, how long it lasts for and where it is coming from. We automatically put all of this information together and respond appropriately to it.

We can usually cut out unwanted noise so we can concentrate on the noise we need to do the task we want to. If there are concerns in this area a hearing test should always be undertaken to rule out any other medical difficulties.

WHAT HAPPENS WHEN A CHILD EXPERIENCES THIS DIFFERENTLY?

There are potentially two types of auditory processing difficulties the first is an **over sensitivity** to sounds and the second is an **under responsiveness** to sounds.

For Children who have auditory processing difficulties noise can be painful if over sensitive or they do not register it if under sensitive.

If difficulties exist with **over sensitivities** you may see the following behaviours in early years settings:

- Runs from household noises
- Covers ears at loud noises or unexpected alarms etc, may become very distressed.
- May hum to block out external noise
- Easily distracted by background noise

- Hears things that most people don't

If difficulties exist with **under sensitivities** you may see the following behaviours in early years settings:

- Holds toy to ear and has volume on high*
- Doesn't appear to hear when called
- Likes repetitive sounds*
- Hums in noisy environments*
- Not alarmed by sudden noises

**Please note that these behaviours may also be seen in children who are over sensitive to sounds as they are struggling to screen out surplus noise in order to attend to your voice or they may hum as a way to block out other unexpected sounds.*

WAYS TO HELP - WITH SOUND

Area	Difference identified	Suggested activity/teaching strategy
1	Runs from household noises (hairdryer, washing machine).	• Visually identifying the sound source can often ease the anxiety and eventually seeing if the child will tolerate touching it or turning it on. • Encouraging child to stay at a distance but in the same room, perhaps by using a pop-up tent as a hide out, so they can still see and feel protected at the same time.
2	Blocks ears when in the hairdressers.	• Allowing the child to wear earphones in the hairdressers with a familiar piece of music on can help to drown out the sound of the clippers or hairdryers. • Informing the hairdressers that using scissors may be more helpful to your child.
3	Blocks ears at unexplained times.	• Check that overhead strobe lighting isn't buzzing as some children with autism can hear very slight noises and become distracted or distressed by them. • Ensure one adult at a time is talking to them as your child may just be trying to drown out too many sounds coming in at one time and have difficulty processing them all.
4	Hums and covers ears.	• Again known as 'blocking' auditory overload can mean that too many sounds and thoughts are happening at too faster speed in order for the child to process. Use a distraction free area and turn off the T.V. and start again!
5	Holds toys to ear and has volume on high.	• Eliminate hearing impairment by asking for a referral to an audiologist. • Encourage child to turn up the volume but keep the toy at a safe distance not to damage the ear.
6	Doesn't appear to hear you when being spoken to.	• Once hearing impairment has be eradicated apply above strategy e.g. ensuring work/play in a distraction free area for short periods until child engages with your overtures. • Does your child recognise he is being spoken to? Does he respond to his name? Does he know what his name is? Basic work on identity such as using photographs and

Area	Difference identified	Suggested activity/teaching strategy
		labelling his/her chair and picture books may help with this recognition. • Adult to approach child from the front and if not touch sensitive a gentle touch to the child's arm before speaking may help the child to focus his attention on you rather that the cars going past in the street!
7	Easily distracted by a distant sound (fire engine).	• Being in tune with your child and verbally identifying the noise to the child as they occur can help to reassure them. • If in walking distance an impromptu walk around to the culprit, so the child can see where the noise is coming from can also be helpful.
8	Easily startled by unidentifiable sounds (telephone).	• Again identifying where the noise is coming from and showing the child that it will stop helps the child understand that there is an end to the noise. • Playing simple role play games with the telephone etc and allowing the child to make the phone ring can also help to take the fear out of things. • Turning the ring tone down on the phone or moving the phone temporarily to another room and gradually bringing into the room the child plays over a period of weeks can also help to desensitise.
9	Gets 'high' from repetitive sounds.	• Use an egg timer to show the child that an activity is soon going to finish to encourage the child to stop pressing sound toys over and over again. Limiting the sound before it over-stimulates the child.
10	Gets frustrated by busy/noisy environments.	• Gentle exposure to busy environments to retrieve child motivated objects e.g. visit to Tesco to buy a Thomas comic. • Use of earphones/hood/hat so child feels their ears are protected when child has to be exposed to longer periods of noisy activity. • Allow child to walk on the inside of the pavement when out in busy streets rather than near roadside close to fast noisy vehicles.

Area	Difference identified	Suggested activity/teaching strategy
11	Places hand over people's mouths when they sing/talk.	• Too many people singing/talking at once can cause confusion. When child covers your mouth, stop talking and look around to see if someone else is also joining in. Remember to try to have one adult talking to the child at once. • Prepare the child if two people are going to sing at one time e.g. Mummy and Jo are singing today, 1, 2 people etc.
12	Never alarmed by sudden noises.	• Again ensure there isn't a hearing impairment by having a routine check by an audiologist. • Often children who aren't alarmed are tuning into something they find far more interesting! Try using exaggerated expression and higher tone to draw the child's attention to sudden sounds.
13	Becomes anxious by loud, sudden noises (child screaming, balloon popping etc)	• Identifying the loud noise through visual and verbal labelling can reassure e.g. "wow it's the balloon, look!" • Encourage the child to play with the object that makes the noise or watch you play with it. Create fun games like blowing up the balloon and letting it go, releasing a small squeaky bit of air out, or allowing the child to stay in control by stamping or using a cocktail stick to pop the balloons.

MOVEMENT

A child learns movement through development of the **proprioceptive and vestibular system.**

Integration of these systems enables a child to develop a sense of body awareness, balance and motor control that allow them to freely move. Each system is described below.

PROPRIOCEPTION

Proprioception is 'How the body senses itself', this is our subconscious sense that tells us where our arms and legs are in space without us having to look at them. This information is being passed on from our muscle and joints to our spinal cord and to our brains even when we are still. This ensures that we can be upright and not slipping off our chair, it also provides us with an internal map of our bodies. It is also the sense that helps us to grade the force we place through objects and impacts on the resting tone of our muscles.

VESTIBULAR

How the body handles movement is down to our vestibular systems. This is located in our inner *ears.*

The vestibular sense is possibly the most fundamental of all our senses it gives us physical and emotional security when moving in space as our bodies automatically adjust to stop us from falling.

This sense helps to keep us upright against gravity it is stimulated when we move or change our head position it enables us to keep orientated when we bending over to pick up a school bag, ride in the car, walk around the nursery. More subtle vestibular activities include maintaining a seated posture and paying attention.

Our vestibular system reduces confusion about conflicting visual information, such as when a child hangs upside down the vestibular sense confirms for the child that they their worlds haven't just turned upside down. This sense also enables us to stabilise our visual field so when for example we throw a ball at target we can run whilst looking at the target.

The information from the vestibular senses also passes through an area of the brain that impact on our attention and arousal levels (sleep/wake cycles). Consider how you handle a baby; to wake them up and get them excited you bounce them on your knee to get them to sleep you rock them back and forth.

WHAT HAPPENS WHEN A CHILD EXPERIENCES PROPRIOCEPTION OR BODY SENSE DIFFERENTLY?

The common difficulties with the processing of proprioceptive information appear to be a lack of sufficient information. This can cause a child to go looking for the information often termed 'sensory seeking'. These children are usually always on the go, but can be sedate as they find it difficult to move and therefore are reluctant to play and prefer to sit and watch. If difficulties exist you may see the following behaviours in early years settings:

- excessively climbing on things
- bumps into things easily
- unaware of children on the floor and will trip over them
- seems un-coordinated
- may prefer low key activities
- likes to fall or bump and seeks this out
- Can't negotiate round obstacles
- Difficulty with planning how to get in and out of play equipment
- Difficulty with fine motor skills.

WHAT HAPPENS WHEN A CHILD EXPERIENCES MOVEMENT DIFFERENTLY?

When vestibular information reaches the brain, the brain then decides what to do with it, initially our protective reactions are stimulated do we 'not do it', 'go for it' or do we 'precede with caution'. The situation will be assessed to establish if there is any threat or danger and will then act accordingly. However, a child with a poorly functioning vestibular system will often not act in accordance with what the activity would provoke. A child may have an overly sensitive vestibular system which leads them to having exaggerated emotional responses to movements against gravity way out of proportion to the actual potential threat. Some children conversely may experience an under responsiveness to movement and indeed seek out as much movement as they can.

If difficulties exist with **over sensitivity** you may see the following behaviours in early years settings:

- Fearful of playground equipment
- Dislikes swings and slides
- Gets car sick easily
- Anxious if not in control of movement

If difficulties exist with **under sensitivity** you may see the following behaviours in early years settings:

- Seeks out swings
- Likes roundabouts, slides
- Hangs upside down on bars
- No sense of danger when climbing
- Constantly on the go
- Trips over own feet

WAYS TO HELP – MOVEMENT AND BODY SENSE

Important Note

Children with vestibular difficulties can feel sick and dizzy very easily, or not realise when they have reached their tolerance level and vomit or experience headaches. Care should be taken when working with these children and you should stop the activities and seek support from an Occupational Therapist with post graduate training in Sensory Integration Therapy if your child shows these signs.

When working with a child who seems fearful of movement, playground equipment, is car sick, it is essential that they are in control of the amount of challenging movement experiences they will engage in. The child should never be pushed past his or her limit. Finally, be aware of sensory strategies you can use to make the child feel calm, safe and secure. These are useful to prepare the child for challenging work against gravity and to comfort and calm them if they feel unsure or unhappy with certain movement activities.

Area	Difference identified	Suggested activities/teaching strategy
V1	Climbs in excess	• Divert child to more appropriate large play equipment when shows a desire to climb. • Move legs to pieces of music or during rhymes.
V2	Seeks rocking motion	• Engage child in lap play e.g. row the boat, going to the seaside, roley poley song etc. • Use of a large child sized ball (gym ball) encourage child to lay body over it and push back and forth with feet on the floor to encourage rocking motion. Again use of a song can help to keep them engaged.
V3	Is travel sick in car/trolley/buggy	• Place a hard surface under child's feet in car/whilst sitting/use foot plates in a buggy to encourage the feeling of stability. • Allow child to sit in middle seat when in the back of the car so they are able to focus their vision forward. • Ensure child is sitting in their seat firmly and isn't feeling insecure due to a loose car seat/straps in buggy. • Avoid big unexpected movements.
V4	Spins self around	• Play games where spinning is part of the fun! E.g. ring a roses, pin the tail on the donkey! • Read books with actions that involve swirling around e.g.

Area	Difference identified	Suggested activities/teaching strategy
		'we're going on as bear hunt'
V5	Anxious when not in control of own movements (being picked up, swing)	• Practise fast angular movements during fun interaction that the child already tolerates e.g. pick up then tickles! • Teach child to use their feet to activate equipment and become in control e.g. sitting and pushing along a skateboard, swinging self on a swing. Using a space hopper.
V6	Constantly on the move	• Provide child with regular bursts of gross motor play. Use of soft-play/run around in between sit down sessions/bounce on a trampoline.
V7	Swings arms from high bars (curtain rails/fans etc)	• Pulling and pushing activities using appropriate materials e.g. Lycra bands. • Close supervision on climbing frame equipment. • As with other strategies if swings on inappropriate equipment remove and retrain child to divert to appropriate materials.
V8	Moves around the outskirts of activities, avoids busy movements	• Gradually encourage one other child into his/her chosen area and facilitate quite low key non-threatening games. • Provide the child with a safe haven to go to if the setting is becoming too much to cope with (use of a pop-up tent?) but encourage short periods of time with a small group to begin to desensitise the child to the activities.
V9	Prefers low-key activities.	• Allow child to play with low key activities alongside a busier group for short periods. • Allow child to be a spectator on more active play with no pressure to join in but an open invitation.
P1	Can't negotiate around obstacles in her way	• Place the odd obstacle in the child's area to allow the child to acknowledge these items and learn to guide himself around them. • Play games where the child has to negotiate their way around an obstacle course, using stepping stones and different surfaces.
P2	Likes to fall or	• Facilitate games using jumping and falling motions e.g.

Area	Difference identified	Suggested activities/teaching strategy
	jump	ten green bottles, 5 little speckled frogs. • Use a trampoline.
P3	Shows no sense of danger when climbing	• Ensure safety by diverting climbing to appropriate play equipment and reinforcing 'No climbing here'.
P4	Locks joints when naked or prefers to be in the foetal position	• Support body when changing nappy (hard cushion/bean bag to lay body in). • Help the child relax by singing action songs when changing for bed. Encourage the child to join in with movements.
P5	Bangs/bounces on the floor	• Transfer this behaviour to play equipment e.g. bang the drum/bag the beach ball.
P6	Trips over own feet	• Again try co-ordination activities such as obstacle courses and walking on straight lines in a playground. Reward at the end.
P7	Stands too close to others	• Use masked off areas when playing turn-taking games to show distance required. So the child can visualise where it is appropriate to sit.
P8	Finds it difficult to cross from one area to another.	• At home avoid flooring that changes from room to room. Continuous patterns are more helpful to children who find transitions difficult. • Otherwise mark these boundaries with obvious lines e.g. bright yellow tape to clearly define a difference in level or surface.
P9	Has difficulties with fine motor skills i.e. doing up buttons	• Encourage fun fine motor activity: Peeling stickers from a card/noise putty/threading/finger painting.

FURTHER SUPPORT AND ADVICE

Autism Outreach Service (Leicester County)

County Hall, Groby Road, Leicester

Tel: 0116 305 9400

Special Needs Teaching Service (Leicester City)

New Parks House, Pindar Road, Leicester, LE3 6DY.

Early Years Support Team

Tel: 0116 225 4795

Learning and Autism Support Team

Tel: 0116 225 4800

Early Years Inclusion Service (Rutland)

Rutland's Early Year Inclusion Service offers an integrated approach to early learning and support, working with settings and families to ensure the needs of the children are met.

Tel: 01572 758496

Area Special Educational Needs Co-ordinators

May be able to support with the implementation of the strategies contained in this resource pack.

Occupational Therapy, Leicestershire Partnership NHS Trust

Bridge Park Plaza, Bridge Park Road, Thurmaston, Leicester, LE4 8PQ

Tel: 0300 3000 007

www.leicspart.nhs.uk

The Occupational Therapy Services in Leicestershire Partnership NHS Trust work with young people who may have a diagnosis e.g. autism, ADHD, Co-ordination disorders or may be displaying the signs of sensory processing differences. We currently offer parent education workshops to support the development of young people. Referrals can be made through our single access point.

Independent Occupational Therapists

Details of how to seek out independent practitioners if required is available through College of Occupational Therapists.

Tel: 020 7357 6480

Website: www.cot.org.uk

www.sinetwork.org.uk

Leicestershire Nutrition & Dietetic Service (LNDS), Leicestershire Partnership NHS Trust

11-12 Warren Park Way, Enderby, Leicestershire, L19 4SA

Tel: 0116 222 7170

Website: www.lnds.nhs.uk

If you have any concerns about a child's nutritional status e.g. Poor weight gain, obesity or extreme dietary restriction, referrals can be made using the LNDS Paediatric referral form from the LNDS website or through a single access referral.

RESOURCES AVAILABLE

TRAINING

Available through Sensory Integration Network (UK and Ireland), Open to parents, educators, therapists and support workers.

Website: www.sensoryintegration.org.uk

Introduction to Sensory Integration (1 day)

Introduction to Sensory Processing (3 day)

www.lls.leicester.gov.uk

http://www.leics.gov.uk/index/education/going_to_school/special_education_needs/specialist_teaching_service/service_teams/autism_outreach_service/autism_resources.htm

BOOKS

Carolyn Murray-Slutsky and Betty Paris (2004). Is it Sensory- Is it Behaviour?

Carol Kranowitz (2007). Out of synch Child recognising and coping with Sensory processing Disorder (2007)

Carol Kranowitz (2006). The out of synch child has fun: Activities for kids with sensory processing difficulties

Ellen Yack, Paula Aquilla, Shirley Sutton (2003). Building bridges through sensory integration therapy for children with autism and other pervasive developmental disorders

Isbell C & Isbell R (2007), Sensory Integration: A Guide for Preschool Teachers

Angie Voss (2011). Understanding Your Child's Sensory Signals: A practical daily use handbook for parents and teachers (2nd Edition). Create Space Independent Publishing

Angie Voss (2011). Your Essential Guide to Understanding Sensory Processing Disorder. Create Space Independent Publishing.

ORGANISATIONS

Leicestershire Partnership NHS Trust and Leicestershire County Council do not accept any responsibility for the information on these websites.

Sensory Processing Disorder Foundation

Website: www.spdfoundation.com

CanChild Centre for Childhood Disability Research

Website: www.canchild.ca

The Spiral Foundation

Website: www.thespiralfoundation.org

REFERENCES

The following resources have been used in the development of this resource pack:

Beath, L., Park, L., 2010. *Making sense of sensory behaviour – A practical approach at home for parents and carers*. [pdf] Falkirk: Falkirk Council Social Work Services. Available at: http://www.falkirk.gov.uk/services/social_work/children_and_family_services/support_for_children_affected_by_disabil/making_sense_of_sensory_behaviour.pdf

Bundy, A.C., Lane, S.J., Murray, E.A., 1991. *Sensory Integration Theory and Practice.* 2nd ed. Philadelphia: F.A. Davis Company.

Case-Smith, J., 2010. *Children and Occupational Therapy.* 6th ed. St. Louis, MO: Mosby.

Coventry and Warwickshire NHS Partnership Trust, 2013. *Children and Young Person's Occupational Therapy Service in Coventry.* [online] Available at: www.covkidsot.co.uk

Cribbin, V., Lynch, H., Bagshaw, B. and Shadwick, K., eds., 2003. *Sensory Integration information booklet: a resource for parents and therapists.* Theale: Sensory Integration Network (UK and Ireland).

Crispin, J., 2007. *Checklist for observation, assessment and monitoring of sensory issues experienced by young children with a diagnosis of ASD.* Leicester: Leicestershire County Council/ University of Birmingham.

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Kirsty Neale	Parent Participant

APPENDIX 1

Checklist for observation, assessment and monitoring of sensory issues experienced by young children with a diagnosis of ASD.

Name of child: Date of birth:

Completed by: Date of completion:

Review date:

Scoring:

1) Never shown
2) Isolated occurrences noted
3) Occasionally seen (i.e. weekly /monthly)
4) Frequently shown (daily basis)

Please remember to add date of observations made and score accordingly, this will allow the monitoring of changes in behaviours.

Notes.

This checklist is not intended to replace standardised sensory profiles which should be undertaken in consultation with a therapist with accredited training in Sensory Integration Theory and Practice.

The scoring system is designed to enable those working with children to identify the behaviour which needs addressing as priority.

JC/SI/08

Adapted from: Crispin, J., (2007). Checklist for observation, assessment and monitoring of sensory issues experienced by young children with a diagnosis of ASD. Leicester Autism Outreach Service, University of Birmingham.

TOUCH

This sense is located in the skin. It is responsible for controlling temperature, pressure, emotion and pain.

To		Dates reviewed				Observations/ comments to inform suggestions.
1	Avoids holding hands with adult or other children.					
2	Withdraws from a cuddle					
3	Finds a 'light touch' uncomfortable.					
4	Seems ticklish every time touched without clothes on.					
5	Craves rough and tumble play.					

To		Dates reviewed				Observations/ comments to inform suggestions.
6	Holds people tightly.					
7	Strips off clothes.					
8	Finds some clothes uncomfortable.					
9	Won't tolerate loose clothes.					
10	Gets hot very easily.					

To		Dates reviewed				Observations/ comments to inform suggestions.
11	Distressed when cold.					
12	Craves heat.					
13	Has a fear of going out in the rain/wind.					
14	Needs to be wrapped up tight to sleep.					
15	Finds nappy change distressing.					

To		Dates reviewed				Observations/ comments to inform suggestions.
16	Senses slight wet mark on clothes.					
17	Scratches away tears when upset.					
18	Doesn't show distress when hurt.					
19	Walks on tip-toes when bare foot.					
20	Walks on tip-toes on certain surfaces.					

To		Dates reviewed				Observations/ comments to inform suggestions.
21	Runs sand through fingers continually.					
22	Avoids messy play.					
23	Plays with/fascination with silky material.					
24	Rubs objects over face/body.					

To		Dates reviewed				Observations/ comments to inform suggestions.

MOVEMENT

There are two senses responsible for movement. These are the **Vestibular** system and the **Proprioception** system. The **Vestibular** system is located in the inner ear. It lets us know where our body is in space and helps us gauge direction, movement, speed and balance. The **Proprioception** system is located in our joints and muscles, this sense lets us know where our body parts are and how to co-ordinate and move them.

V/P		**Date reviewed**				**Observations/comments to inform suggestions.**
V1	Climbs in excess.					
V2	Seeks rocking motion.					
V3	Is travel sick in car/trolley/buggy.					
V4	Spins self around.					

V/P		Date reviewed				Observations/comments to inform suggestions.
V5	Anxious when not in control of own movements (being picked up, swing).					
V6	Constantly on the move.					
V7	Swings arms from high bars (curtain rails/fans etc.).					
V8	Moves around the outskirts of activities, avoids busy movements.					
V9	Prefers low-key activities.					

V/P		Date reviewed				Observations/comments to inform suggestions.
P1	Can't negotiate around obstacles in her way.					
P2	Likes to fall or will jump					
P3	Shows no sense of danger when climbing.					
P4	Locks joints when naked or prefers to be in the foetal position.					
P5	Bangs/bounces on the floor.					

V/P		Date reviewed				Observations/comments to inform suggestions.
P6	Trips over own feet.					
P7	Stands too close to others.					
P8	Finds it difficult to cross from one area to another.					
P9	Has difficulties with fine motor skills i.e. doing up buttons.					

V/P		Date reviewed				Observations/comments to inform suggestions.

SMELL AND TASTE

The sense of smell is processed through chemical receptors in the nose. This gives us information about our environment and the people around us. It is the first sense we use instinctively. The sense of taste is closely linked. Chemical receptors on the tongue help us to gauge and recognise flavours. Sometimes taste buds can be under or over sensitive. These two senses are the reasons why having a cold can prevent us from tasting as we may not be able to smell correctly therefore taste is impaired.

S/T		**Dates reviewed**				**Observations/comments to inform suggestions.**
S1	Becomes anxious by the smell of food cooking.					
S2	Gags on smell of someone else's food close by.					
S3	Sniffs people.					
S4	Comments inappropriately of people's aroma.					

S/T		Dates reviewed				Observations/comments to inform suggestions.
S5	Puts objects up his/her nose.					
S6	Smells toys before playing.					
S7	Smells own faeces.					
T1	Eats non-food items (glue etc.).					
T2	Overfills his/her mouth.					

S/T		Dates reviewed				Observations/comments to inform suggestions.
T3	Dribbles excessively.					
T4	Chews/mouths everything.					
T5	Grinds teeth.					
T6	Bites people around him/her for no apparent reason.					
T7	Finds it hard to co-ordinate mouth when communicating.					

S/T		Dates reviewed				Observations/comments to inform suggestions.
T8	Licks objects/people.					
T9	Appears unaware of small pieces of food in her/his mouth.					
T10	Eats specific food only (dry, sloppy etc.).					
T11	Regurgitates dry foods.					
T12	Finds cleaning teeth uncomfortable.					

S/T		Dates reviewed				Observations/comments to inform suggestions.

It is important to note at this point that some behaviours shown orally may be due to touch sensitivity rather than a link to taste. This can be difficult to determine and liaison with either Occupational therapy or Speech and language therapy service may be helpful to help the professional determine this.

AUDITORY

Sometimes children with ASD find sounds difficult to filter out or tune into. This can be due to either hypo or hyper-sensitivity in the ear.

A		Dates reviewed				Observations/comments to inform suggestions
1	Runs from household noises (hairdryer, washing machine).					
2	Blocks ears when in the hairdressers.					
3	Blocks ears at unexplained times.					
4	Hums and covers ears.					
5	Holds toys to ear and has volume on high.					

A		Dates reviewed				Observations/comments to inform suggestions
6	Doesn't appear to hear you when being spoken to.					
7	Easily distracted by a distant sound (fire engine).					
8	Easily startled by unidentifiable sounds (telephone).					
9	Gets 'high' by repetitive sounds.					
10	Gets frustrated by busy/noisy environments.					

A		Dates reviewed				Observations/comments to inform suggestions
11	Places hand over people's mouths when they sing/talk.					
12	Never alarmed by sudden noises.					
13	Becomes anxious by loud, sudden noises (child screaming, balloon popping).					

A		Dates reviewed				Observations/comments to inform suggestions

VISUAL

Visual perception is the sense that connects the eye to the brain. This sense controls light, detail, motion, depth and distance.

V		Dates reviewed				Observation/comments to inform suggestions
1	Extended eye gaze.					
2	Focuses on a tiny part of an object rather than the bigger picture.					
3	Fascinated by tiny threads on the carpet. Or small patterns.					
4	Comments on things we may not see (e.g. pattern resembling something else).					
5	Holds objects close to his/her eye.					

V		Dates reviewed				Observation/comments to inform suggestions
6	Holds objects in peripheral vision.					
7	Gets excited by flashing lights on toys.					
8	Stares at fluorescent lighting.					
9	'Stims' on reflective surfaces.					
10	Comments on external pattern e.g. every bump or line in the road.					

V		Dates reviewed				Observation/comments to inform suggestions
11	Is startled by clouds casting shadows over the room/ground.					
12	Stares out of the windows/attracted to natural day-light.					
13	Likes fast motion in films or physical games.					
14	Likes to see toys spinning					

V		Dates reviewed				Observation/comments to inform suggestions

SENSORY CHECKLIST ACTION PLAN

Name of Child
Completed by

Date of Birth
Date of Completion
Review date

Date	Area Identified	Strategies to be implemented	Progress