KENTCONTINUUM OF NEED AND PROVISION CASE STUDIES: PHYSICAL AND SENSORY ENVIRONMENT

By Schools, For Schools

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Mainstream Nursery and Primary School Case Studies

Northfleet Nursery- Auditing the nursery environment

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Brief description/ overview

Northfleet Nursery School is Kent's only maintained Nursery school. We currently have a high percentage of disadvantaged, EAL(In excess of 60%) and children with complex SEND needs. We did a lot of work on both our Indoor and Outdoor areas in terms of what we wanted our sensory and physical environments to look like, feel like and sound like?

We also wanted to measure the impact on:

- Cognitive development
- Social skills
- Emotional Well-being
- Physical Growth

An overview of what we did

Nursery schools play a vital role in shaping early childhood experiences. Key aspects of our physical and sensory environments include:

- Physical Elements: Classroom layout, furniture, outdoor play areas, and accessibility features.
- Sensory Elements: Lighting, sound levels, textures of toys and surfaces, colours, and smells.

Observation and Analysis:

We evaluated how our school environment met or challenged children's developmental needs. For example:

- Strengths: Bright, colorful walls that stimulate creativity, age-appropriate furniture, and diverse sensory play areas.
- Challenges: Poor acoustics causing noise disturbance, harsh lighting, or lack of sensory-friendly toys.

Findings:

Through observations and feedback from teachers and TAs, we considered:

- How children engage with their environment during different activities (e.g., reading and playing).
- Physical Layout: Open spaces for movement, cozy corners for quiet time, and accessible resources to encourage exploration and independence.
- Sensory Stimulation: Incorporated textures, colours, sounds, and scents can stimulate curiosity and learning. Sensory rooms, for example, provide a calming space for children to explore their senses.
- Safety and Comfort: Ensured the environment was safe and secure, helped children feel emotionally stable and encouraged them to take risks and learn.
- Adaptability: Considered having spaces that could be reconfigured for different activities support diverse learning styles and needs.
- Textures and Materials: Incorporated varied textures in play areas to support tactile exploration.
- Outdoor Space: Expanded outdoor play areas with sensory-rich elements like sandboxes or water play stations.
- Inclusive Design: Ensured toys/resources and activities accommodated children with sensory or physical disabilities.

Impact

- A well-designed sensory and physical environment fostered growth, inclusivity, and comfort, catering to the diverse needs of our children.
- Clear measurable impact on the progress made by children from their starting points in the following areas:
- Cognitive Development: Engaging environments promoted problem-solving and critical thinking.
- Emotional Well-being: Sensory-friendly environments helped children with sensory differences feel secure and ready to learn
- Social Skills: Group activities and shared spaces encouraged collaboration and communication.
- Physical Growth: Active play areas supported motor skill development

Jubilee Primary School- Creating a sensory room

Contact

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Brief description/ overview

We opened our own sensory room in September 2024 (Mainstream Primary School).

An overview of what we did

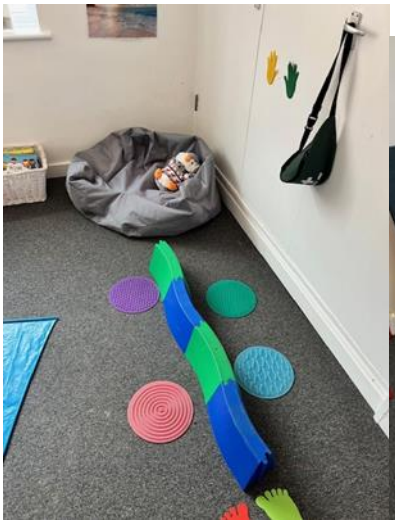
We transformed an old medical/photocopying room into a permanent sensory space due to the increase in need. We funded it ourselves through donations and buying bits second hand. We have tried to include a wide variety of resources such as:

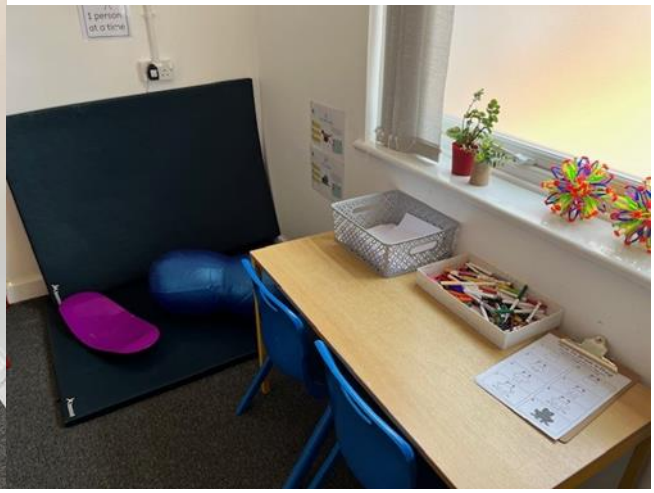
- A black out den with light up toys.
- A smell basket.
- Massage tools.
- Box of fidgets
- Sensory walkway
- Colouring station
- Books
- Teddy bears
- Fibre optic light
- And a tuff tray which is different every week: water, sand, rice etc.

The sensory room is open every Tuesday, Wednesday and Thursday lunchtime. We have some children who have a 'pass' and can access it on all of these days for as long or as little as they wish. Then we have additional lanyard passes which are given to the adult on the playground to give out to other children who would like to access it.

We also have slots during the day for children who need more regular access.

It is not used as a 'cool down' space but rather a preventative tool to support regulation.





Impact

It has been really impactful in a variety of ways.

It has helped to reduce playground incidents as a lot of these children really struggle with the playground and get overwhelmed and dislike the lack of structure.

Since it is the SENCo and SEND Assistant that staff it at lunchtimes, they get to have an informal touch base with some of our high needs SEND really regularly and it often brings up issues that they wouldn't have known about and can then address.

It has provided another informal opportunity to teach some soft social skills to those children.

The children are much more regulated in class and therefore are more focussed and accessing more learning.

The children also really enjoy it and many say it's the best thing about their day... I think the SENCo would also agree.

King's Farm Primary School- Creating an effective outdoor environment

Contact

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Brief description/ overview

With the ever-increasing need for physical and sensory effective intervention and the limited space within the school a decision was made to enhance the provision of the school by constructing an outdoor area for those pupils that require this ilk of support.

An overview of what we did

As part (primarily) of the Specialist Resource Provision (SRP) and as a continuum of support from EYFS to KS1 within the school a lodge was purchased and fitted with sensory resources for those that are deemed to find it relevant. This would include those children whose preference is to learn outside and as a suitable space to continue the "exploration" that happens within the EYFS curriculum.

Impact

This has been used via a strict rota, as a school we were clear that this was not to be a place where pupils were re-located when dysregulated as we have other areas/strategies designed to cope with this. It has been utilised effectively for those who require it and has been expanded/extended to other pupils within the school that are now benefitting from the resources and/or a different location to receive effective intervention and has had the effect that there is less disturbance for the cohort who are more than capable of learning within the mainstream classroom.

More Park Catholic Primary School- Creating an effective sensory environment

Contact

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Brief description/ overview

There has been an increasing need for pupils to have the opportunity to regulate and take sensory learning breaks.

Reports from parents about meltdowns at home.

Increase in incidents of dysregulation in school.

An overview of what we did

Developed bespoke sensory circuit activities for pupils with needs where sensory circuits were not making an impact. Support for staff leading sensory circuit activities.

Dedicated sensory areas throughout the school (portable).

Daily climbing (PE equipment) as part of our core offer/ reasonable adjustments.

Soft furnishings and chill out areas in KS2 classrooms and egg chairs in KS1 classrooms.

Dedicated work areas designed by pupils.

Exit plans agreed with pupils along with dedicated safe spaces .

Impact

Regulation activities by pupils take place throughout the day. There has been a reduction of incidents within school and a reduction in the need to safely remove pupils in order to keep them safe. Some parents have identified better regulation at home

St Edmund's CoE Primary School- Supporting non-verbal pupils in Year R

Contact

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Brief description/ overview

Three pupils in a reception class, 2 with EHCPs and 1 with an EHCP at the assessment stage.

- All three pupils had access to HNF.
- Pupils are all non-verbal and working at 0-6 months of age and are in a mainstream class with 27 other pupils.

Pupils found accessing the mainstream classroom environment overbearing and struggled to attend to the level of language, noise and interaction with other pupils and adults. This resulted in dysregulation and absconding.

An overview of what we did

The three pupils were discussed with Professional Resource Group colleagues. EYFS specialist teachers visited the pupils and worked with the EYFS team in creating an assessment and curriculum framework, using the Engagement Model to monitor steps of progress and to support teaching and learning, embedding interventions outlined in the pupils' EHCPs.

A spare classroom next to the EYFS class was converted into an intervention space and sensory environment which the three pupils accessed through the day to work on their targeted interventions, TEACCH activities and a place where they could access sensory resources to help regulate their emotions.

As part of the STLS support around the class, the staff were trained in Attention Autism and how to use the Engagement Model to support assessment.

Additional training will involve PECS, Makaton and TEACCH.

Action taken:

- STLS blocks of intervention/outreach support
- A specific area of the school was created in response to the needs of the profiles of these pupils.
- Adaptations included sensory and intervention space.
- Targeted individual resources to meet the needs of an EHCP

Impact

- Reduction in dysregulated behaviour.
- Pupils making small steps of progress towards their EHCPs.
- Increased pupil engagement in 1:1 situation.
- Small steps in the development of language.

PRU Case Studies

Estuary Academy North- Supporting physical and sensory needs

Contact

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Brief description/ overview

Individual pupil case study:

CYP came to Estuary Academy North from her mainstream school in year 10, having already received 43.5 days of suspension leading to PEX, and a significant amount of time out of education prior to her placement with us. She had 2 prior Early Help referrals, both closed before she arrived with us. She had found mainstream to be noisy, crowded and unhelpful. CYP was confined to her home and feeling left out from her friends, having not attended school for some time due to exclusion. She was of low mood, high anxiety and used self-harm as an escape for her feelings.

- On arrival, she was assessed and had a Reading Age of 11.4, Spelling Age of 12.2 and Numicon score of 24/40. She found Maths and English challenging, and preferred practical, vocational lessons including Cooking and Hair and Beauty.
- She was open about her private diagnosis of ADHD and Autism, but that she had refused to go to the CAMHS appointment to transfer to their systems. We received no paperwork for this, so she remained SEMH on our systems but, obviously, we support need not diagnosis, and staff were aware of her needs.
- She mentioned being bored and distracted as triggers for leaving class, as well as teacher rudeness as a trigger for absconding or 'kicking off'. She was able to identify a de-escalation method which works: 'Let me sit in a quiet space. I do not engage very quickly.'
- Her main aims for her time with us were to control her anger and get some GCSEs.

An overview of what we did

Numeracy intervention was provided.

It was decided that Counselling could be hugely beneficial, as could some Sensory Room time.

Ad hoc support was also provided by the SEMH and Refocus teams when she became dysregulated.

She also had access to sensory rooms and to discreet fidget toys for use in class.

CYP agreed (begrudgingly) to attend one counselling session a week for her to express how she was feeling. During this time, CYP found comfort in the peaceful counselling room, used her fidgets, the weighted blanket and used Art for her to focus.

CYP eventually felt confident enough to attend on a reduced timetable. If CYP became overwhelmed she had the use of the quiet counselling room or the sensory room. The SEMH team would de-escalate her heightened anxiety.

CYP is an intelligent girl and very independent, home is not always peaceful and this could set her up for a difficult day where loud noises, student chat and teacher instructions were deafening. This could escalate to her feeling uncomfortable in her clothes and her hair being annoying.

Settling strategies were essential to de-escalate her on arrival and allowing her the autonomy to decide when she was ready to cope, she managed to attend her classes.

There were some setbacks but she relied on the support given and trusted the processes.

In year 11 CYP had a determination to do well and with the support of SEMH and academic support she had less anxiety, learned self-regulation and the self-harm was under control to the point she took herself to a college interview for a level 3 having never studied Art at school and was successful in her application.

Impact

- CYP engaged well with support interventions and counselling, and has learned and successfully utilised a range of strategies to manage her anxiety, as well as to reduce/prevent incidents of self-harming.
- Although not consistent, her attendance rose by almost 10%, averaged across the first 3 terms of Y11, when she was engaging with the interventions and support.
- She was able, by Y11, to engage with Access Arrangements with assessment and received Access Arrangements support – reader, scribe and supervised rest breaks.
- She attended all exams (bar one – health issue on the day, reported) and used her AA – she was highly focused, positive and determined to do well in all of her exams (invigilator feedback).
- CYP has applied for college, attended interview and has been offered a place at college.

SRP Case Studies

Marsh Academy- The Dommett Centre

Contact

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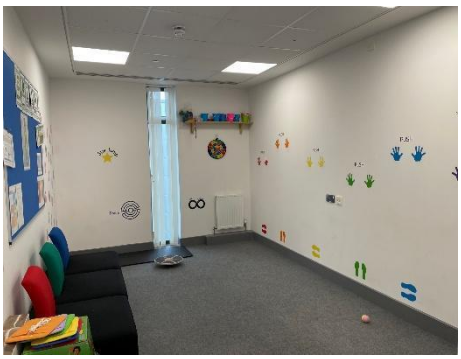
Brief description/ overview

The Dommett Centre:

- SRP Students years 7-11.

An overview of what we did

- When developing our SRP, the SRP Lead Teacher visited several SRPs around Kent to look at best practice.
- The Lead Teacher also took part in the Imagining Autism Project at The Beacon in conjunction with University of Kent.
- This led to the development of 'The Rainforest Room' a sensory space within the SRP that students can choose to use as their safe space.
- We have also created a physio and sensory circuits room which is a simpler space with equipment for students to independently take part in sensory circuits when using their green card as part of their sensory diet.



- This room is also used for a student with physical disabilities to complete his daily physio and is also used for Fizzy and Sensory Circuits interventions.
- Our Home Room is decorated like a family lounge, with a sofa, lamp, coffee table, TV, DVD-player and Stereo system. This room is used as a soft-landing room for new students to the SRP, meeting room for 1:1 session with SALT or STLS, etc.

Impact

- Students find the environment calm
- They tend to find a safe space that suits their needs at any given time and then gravitate towards that space when in need. Staff can then check-in and monitor through our green card logs.
- If the SRP is quiet and student-free, we are doing a good job!
- Attendance amongst SRP students is one of the highest groups in the school at 93.96% at time of writing.
- Our SRP students, on average, spend 92% of their timetable in mainstream lessons.

Simon Langton Grammar School for Boys- Innovative and flexible ways to support pupils access to learning

Contact details

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Brief description/ overview

This work addressed the needs of students for whom physical and sensory aspects of the school environment present significant barriers to learning and engagement. The focus was on creating adaptable, inclusive strategies to support students with a range of needs—particularly those related to neurodiversity and medical conditions—by reducing environmental stressors and increasing access to learning in innovative and flexible ways.

An overview of what we did

Creation of adaptable, inclusive strategies to support students with a range of needs:

One example involved a neurodiverse student who was becoming regularly dysregulated within the classroom setting, often reaching crisis points that necessitated withdrawal from the learning environment. Through collaborative planning with the student and their family, a tailored solution was developed in which the student accessed some of their lessons remotely via a Google Meet link. This reduced sensory overwhelm while maintaining connection to peers and teachers. Over time, as the student's confidence and regulation improved, they gradually increased both remote and in-person attendance, demonstrating sustained progress.

In another case, a student with complex medical needs was experiencing extreme physical and emotional exhaustion, which made regular school attendance unmanageable. To support continued access to learning and peer interaction, an AV1 robot was introduced to provide a live, virtual presence in the classroom. This allowed the student to remain connected to the school community and engage in lessons at a pace aligned with their health needs, significantly improving their access to education.

Impact

The school's provision for supporting young people with physical and sensory needs has had a significant and measurable positive impact on student outcomes, attendance, and wellbeing.

Through a flexible, student-centred approach that incorporates both in-person and remote learning opportunities, the school has enabled students to overcome barriers that previously limited their access to education.

This has led to increased attendance at school and lessons, as well as greater participation and engagement in learning, both online and in the classroom.

One notable example includes a student who previously experienced severe anxiety around assessments and was unable to complete tests without reaching a crisis point.

With carefully planned support, the student is now able to sit tests from home under agreed test conditions, supporting both academic progress and emotional wellbeing.

Additionally, the innovative use of AV1 robots has allowed students with long-term health conditions to maintain a presence in the classroom, remain connected with peers, and continue accessing high-quality teaching.

As a result, several students using this technology achieved top GCSE results and have chosen to return to school to study A-Levels. This inclusive and adaptive provision has not only supported academic achievement but has also significantly improved students' wellbeing, confidence, and sense of belonging within the school community.

Special School Case Studies

Milestone Academy- Using Sound Beam to support the Total Communication Offer

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Brief description/ overview

A need was identified in our performing arts and total communication offer to provide opportunities for students with the most profound and complex needs to access music lessons, create music and respond to sound and or vibration.

Sound Beam was purchased and introduced with a particular focus on the PMLD pathway and with a plan to use this with all students.

The Sound Beam is a multi-award-winning, touch-free assistive music technology device that translates physical movements into sounds and music. It uses sensor technology to allow individuals to become expressive and communicative through music and sound without needing to touch an instrument. This sense of control and independence can be a powerful motivator, stimulating learning and interaction. The latest version, Soundbeam 6, includes a touchscreen interface, inbuilt sampling, high-quality sounds, and a mini keyboard, offering a wide and varied sample/sound library with 37 preset soundsets for immediate musical composition and performance.

An overview of what you did

Lessons were carefully planned and delivered by our dedicated music lead, who collaborated closely with classroom staff. Together, they designed unique opportunities and experiences for students, ensuring staff also received comprehensive training on the Sound Beam's operation.

The Sound Beam equipment was strategically set up in the drama studio, making it accessible throughout the week for students from both our PMLD (Profound and Multiple Learning Difficulties) pathway and our Stream pathway (catering to students with high-needs ASD). Students from the PMLD pathway engaged with the Sound Beam by making subtle movements, including even their breathing, which transformed into sounds and music. This allowed them to explore how even the slightest body movements could create changes in sound, fostering a profound sense of control and expression. Staff actively assisted by gently moving students

towards and away from the beams, enabling them to create varied musical compositions.

Students from the Stream pathway demonstrated significant engagement and enjoyment, delighting in the freedom of movement to generate diverse sounds. They explored the direct impact of their movements and pace on the notes produced, experiencing a tangible connection between their physical actions and the resulting music.

Furthermore, the music lead partnered with the drama lead to explore the Sound Beam's potential for our more able and verbal students. This collaboration focused on integrating the Sound Beam to create dynamic sound effects and musical accompaniments for drama performances, adding another layer of creative expression to their theatrical endeavors. Observations throughout these sessions consistently noted positive pupil responses and strong staff engagement across all groups.

Impact

Lessons delivered to our Stream pathway students evidenced greater engagement and enjoyment in making sounds and music using the equipment. Students loved the freedom of movement they had to create different sounds, exploring the impact of their movement and pace on the notes produced.

Staff reported improved engagement with learning, improved communication throughout the lesson and a sense of joy through watching the students.

Lessons delivered to the students in the PMLD classes were profoundly moving, impacting on the wellbeing of pupils as they realised that their bodies and the slightest movement, including breathing could affect a change in sound and create music.

Staff enjoyed moving the students toward and away from the beams to help them create different compositions and reported a great impact on the students' response and therefore communication during these sessions.

There has been significant impact on pupil engagement, communication, regulation and wellbeing.

A summary of effective strategies evidenced in the Kent Case Studies for Physical and Sensory Environment

1. Prioritise Inclusive Design and Accessibility

- Audit physical spaces to ensure accessibility for all pupils, including those with SEND or physical disabilities.
- Ensure classroom layouts, furniture, and outdoor areas allow free movement and independence.
- Provide varied textures, lighting, sounds, and sensory stimuli to cater to diverse sensory needs.
- Regularly review and adapt environments to meet evolving pupil needs.

2. Embed Sensory Regulation Opportunities

- Create dedicated sensory spaces or rooms with calming and stimulating resources (e.g., blackout dens, tactile objects, fibre optic lights, tuff trays).
- Use sensory circuits, chill-out areas, and soft furnishings to support regulation throughout the school day.
- Integrate sensory opportunities into outdoor environments, including sand, water, and exploration zones.
- Ensure sensory resources are accessible to all pupils who need them, with structured or flexible access systems.

3. Tailor Support to Individual Needs

- Assess pupils' sensory and physical needs to inform adaptations and interventions.
- Implement personalised intervention spaces for pupils who struggle in mainstream classrooms.
- Provide targeted resources aligned to EHCPs or specialist recommendations (e.g., TEACCH, PECS, Makaton, Engagement Model).
- Use adult support and specialist outreach to maximise engagement and progress.

4. Foster Safety, Comfort, and Emotional Wellbeing

- Design spaces that feel safe, welcoming, and calming to reduce dysregulation.
- Include soft-landing rooms or lounges for pupils transitioning between activities or coping with high sensory input.
- Monitor pupils' use of spaces to ensure environments meet emotional and physical needs.
- Encourage self-regulation and independence through structured access and routines.

5. Promote Academic Engagement and Inclusion

- Integrate sensory and physical supports into learning rather than using them solely as withdrawal spaces.
- Facilitate flexible access to lessons for pupils who may struggle with environmental stressors (e.g., remote access, AV1 robots).
- Use adaptive environments to enable participation in mainstream lessons, maintaining social connections and academic continuity.
- Measure impact on outcomes such as attendance, engagement, cognitive development, social skills, and emotional regulation.

6. Monitor, Reflect, and Evolve Practice

- Gather staff observations and pupil feedback to refine environments.
- Track outcomes for cognition, social development, emotional wellbeing, and physical growth.
- Use evidence from research and school visits to inform continuous improvement.
- Share best practice within and across schools to enhance provision for all pupils.