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#### **Touch**

Signals received through receptors in our skin give us information about what something feels like, temperature and even pain.



#### Sight

Our eyes allow us to see things around us such as light and colours.

#### Proprioceptive

Information received from muscles and joints help us to know where our body parts are and how they are moving.





#### Smell

Olfactory perception allows us to smell our environment.

#### Vestibular

Information from receptors in our inner ear help us to know what direction we're moving in and help us maintain our balance.





#### **Taste**

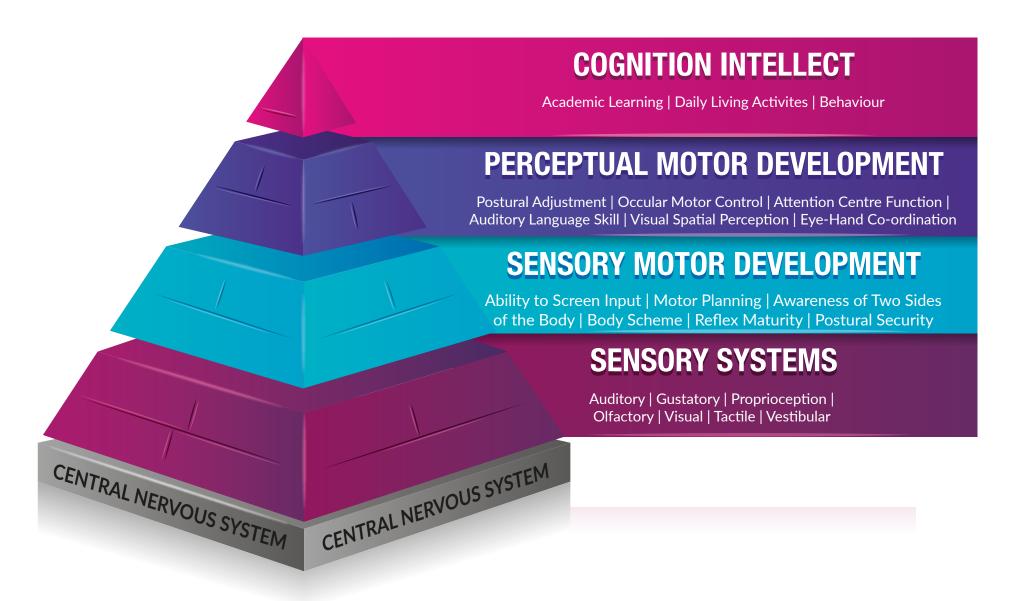
We can taste different flavours like bitter, savoury, sour and sweet.



#### Hearing

We can hear a range of frequencies, sounds and noises with our ears.

## Pyramid of Learning (adapted from William and Shellenberger, 1996)



WILLIAMS, Mary S. and SHELLENBERGER, Sherry (1996). 'How Does Your Engine Run?' A Leader's Guide to the Alert Programme for Self-regulation. 1st ed., Albuquerque, Therapy Works.



## What is Sensory Integration?

Sensory Integration is the process by which the brain organises the information received from all seven senses. Children's brains receive such information constantly, from seeing bright lights, to tasting new foods. Sensory Integration enables them to make sense of the sensory information their bodies receive, 'tune in' to relevant sensations and 'screen out' irrelevant sensory information.

This process develops mostly throughout the first 8 years, however, in some children sensory integration does not develop as it should, leading to the individual having difficulty interpreting sensory information. This is commonly referred to as Sensory Integration Dysfunction or Sensory Processing Disorder.

Sensory Integration Dysfunction is commonly associated with diagnoses listed in the Diagnostic and Statistical Manual (DSM V) including:

- Autism Spectrum
- Attention Deficit and Hyperactivity Disorder (ADHD)
- Learning Disorders
- Fragile X Syndrome
- Developmental Co-ordination Disorders
- Cerebral Palsy

However, sensory processing difficulties can exist in isolation of any other diagnosis.

When issues in sensory processing occur, the child may become oversensitive or undersensitive to sensory stimuli. Where hypersensitivity is concerned, the child may show signs of distress when exposed to stimuli (e.g. avoiding being touched, covering ears to block sounds, become anxious at movement activities). On the other side of the spectrum a hyposensitive child may show little or no reaction to stimuli such as, not registering pain when bumping into things, chewing/mouthing inedible objects and seeking sensory experiences which may lead to dangerous situations or the child being distracted from the task in hand.

As a result, there may be difficulties in co-ordinating, organising, regulating behaviour, activities of daily living; dressing, feeding, etc.





#### 1 Bubble Tubes

Senses Used:







Visually stimulating interactive LED bubble tube.



#### 2 Interactive Controls

Senses Used:





Large tactile buttons for physical interaction.



#### 3 Infinity Tunnel

Senses Used:



Spectacular light effects that stretch in to infinity.



#### 4 LED Globe

Senses Used:



LED light globe with interactive sound and touch response.



#### 5 Dynamic Ambient Lights

Senses Used:



LED Dynamic Ambient Lighting system with Lighting Control Unit.



#### 6 Astrodome

Senses Used:



Sound activated 360° lighting effect.



#### **7** Fibre Optics

Senses Used:





Fibre-optic tactile lighting tails with sensory control system integration.



#### **8** LED Tubes

Senses Used:



Zero maintenance, energy efficient multi-coloured LED light tube.





#### 1 Immersive Projection

Senses Used:



Multi-wall projection, creates unique, seamless, panoramic immersive environments.



#### 2 Dynamic Ambient Lights

Senses Used:



Recognises and replicates dominant colours from the projected images, creating a truly immersive experience.



#### 3 Environmental Effects

Senses Used:







Add an extra dimension to your space. Adding haze, fog and wind with our environmental effects package.



#### **4** Scent Delivery System

Senses Used:



Recall distant memories or create new ones with topical aromas for a complete immersive experience.



#### 5 Interactive Surfaces

Senses Used:







Interactive surfaces transform floors and walls in to fully interactive, educational zones.



#### **6** Acoustic Resonance

Senses Used:









Don't just see it, feel it. Acoustic resonance feedback adds realism to journeys and experiences in your immersive space.



## **Self-Contained Multi-Sensory Spaces**

Our multi-sensory rooms are highly versatile and controllable environments which can be created inside an exsting room or in dedicated, purpose-built outdoor structures such as pods and cabins.

Entering our sensory rooms moves an individual or group away from their current situation to a safe haven where they can calm down, relax, interact and take control of themselves and their environment.

Accessible by everyone irrespective of ability, our sensory environments and the interactive technology contained within, stimulates the senses and brings unreachable or difficult topics and experiences within reach. From within the school, pupils can travel the world and beyond, gaining greater understanding and raising their own expectations and aspirations.

Every sensory environment we create is a unique and individual project. Our sensory specialists will meet with you to discuss what you're looking to achieve and establish your requirements. They will also provide advice where needed on the best technologies to achieve the desired effects and draft an estimate for budgetary purposes. Whilst there are similarities between our projects - no two are ever the same. If you're at a stage where you'd like to move forward, our designers will then create some 3D illustrations of how your immersive space could look when finished.

#### Pod



Standalone indoor and outdoor sensory spaces. Pods are semi-permanent structures which are guaranteed weatherproof. Manufactured from aluminium, pods are contemporary indoor or outdoor structures which can be created in any shape or size to house the latest sensory technology.

#### Cabin



Cabins are outdoor structures designed to resemble traditional wooden structures.

Manufactured from the latest composite materials, this traditional looking cabin cleverly houses the very latest sensory technology.

#### **Mobile**



Quite literally delivering the very latest in multi-sensory technology. Our mobile spaces allow sensory provision to be shared across local authorities, multi-academy trusts or other partnerships, without compromise.



## **Immersive Spaces**

Bring the real world into your school through an immersive environment. Our immersive spaces allow teachers to take their students beyond the classroom and the walls of their school, giving them experiences that they would not ordinarily encounter.

Take students anywhere you desire such as outer space, back to the 1940s or venture into the deepest, darkest woods. By controlling elements such as temperature and lighting you can create experiences which best suit your students' learning needs.

Case studies demonstrate improvements in literacy when students write from experience. Children can explore and learn beyond conventional books or articles from the internet.





## **Overview**

We understand that every child's learning needs are unique to each and every one of them. Where some children would benefit from a high volume of visual stimuli, other children's learning experience would be hindered by such exposure. Our sensory solutions are therefore built with your requirements in mind.

We work closely with you to customise your sensory solution and incorporate the latest elements of relevant equipment for SEN support. Experiences are led using a mobile device (e.g., iPad) which means they are easy to navigate and use. Our control systems eliminate traditional fiddly switches, cables, plugs and complicated training requirements.

As well as being an aid in teaching children with Sensory Integration Disorder, multi sensory exposure

also serves as a powerful tool in the learning experience in all children, whether it be through sensory or immersive solutions.







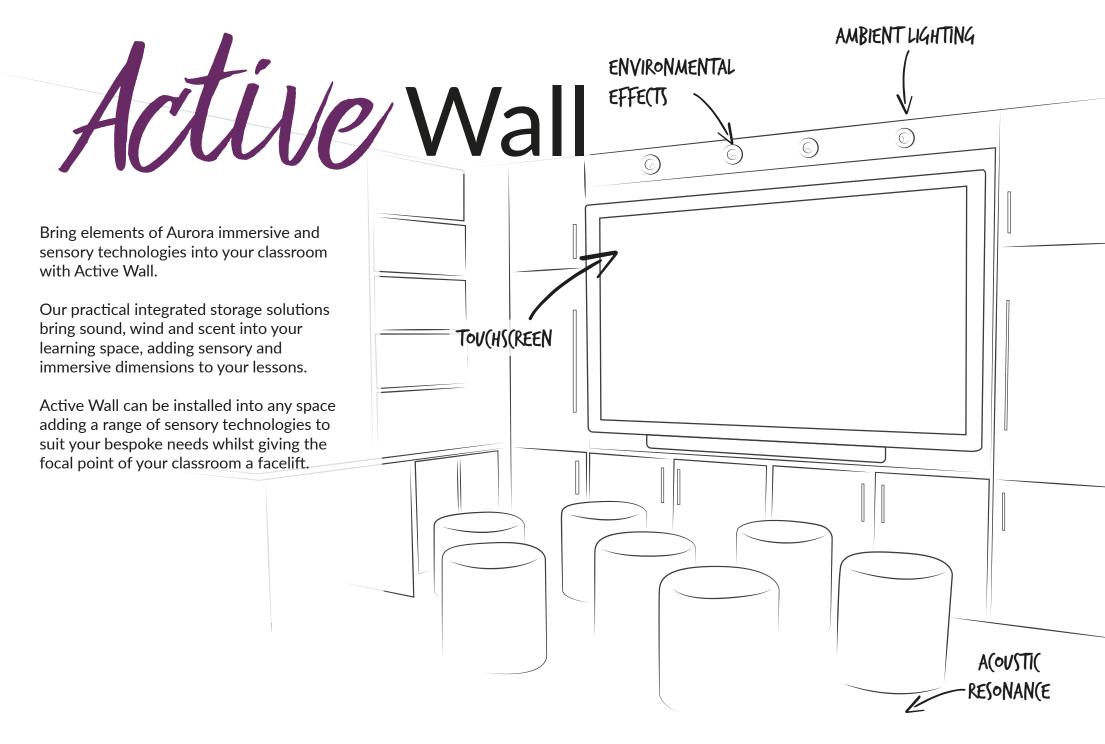
Bring elements of Aurora immersive and sensory technologies into your classroom with Aurora Go; mobile and convenient sensory packages to suit any budget.

Let our sensory friends bring light, sounds, wind and scent into your classroom. Connect to your existing presentation screens or projectors to add sensory and immersive dimensions to enhance your lessons.

Don't worry if you don't have existing presentation equipment or have bespoke requirements, Aurora Go packages can be tailored to meet your specific needs.







# Educate through interactive games



WizeFloor is an interactive floor that promotes

learning through play and physical activity.

The children use their hands and feet to interact with the floor, allowing them to solve the games and take part in fun learning activities and exercises.

Most activities are collaborative allowing multiple children to play simultaneously.

- Over a thousand ready made educational games
- A social and collaborative learning experience
- Learning through physical movement
- Suitable for any subject and any age
- Create and share exercises with the online WizeFloor community





The education industry's favourite interactive floor can now be moved and shared across your organisation.

Our new mobile interactive solution, Wizefloor Go. unleashes the potential of interactive floors - no physical installation required.



### **Testimonial**

"The Environment is fit for purpose particularly when engaging with pupils that have special needs. We have three specialist rooms built from scratch which help staff bring together a specialist curriculum, providing sensory environments for a number of need types. Teachers are able to create programs of work which allow pupils to embrace their learning styles and therefore get the best learning in a format that suits their abilities.

The rooms were a part of the overall project and so they were involved from the very early stages. I know the project site manager was very happy working with the team from Osborne Technologies. I also believe that the methods of work carried out by Osborne Technologies is such that our contractors are more than happy to engage with the company on other projects in the future. From the initial demo with SensoryMobile, we were hooked. We did look at others and their capabilities but felt that Osborne Technologies addressed any concerns we might have had in such a way that we felt confident they could deliver what we wanted, and they did.

Osborne Technologies listened to what we wanted the end result to be like when pupils experienced the sensory rooms and then helped us understand how they could bring that to fruition. They were asked to present on a number of occasions to a variety of staff members so we could ensure every need could be satisfied and they never baulked at the idea of returning to the school to help us.

The experience has been a positive one and we intend it to be ongoing. Company reaction post installation has been excellent. We have a brilliant relationship, ensuring staff are well trained in the use of the equipment and are fully aware of its capabilities. Long may this relationship continue."

Gaynor Hall Business Manager Birkett House School

## Survey

Before we supply a formal quote for your exciting new space, we think it's really important that we provide a design that will incorporate all of the features that apply to your criteria and that will meet the needs of all individuals who experience it.

This questionaire will enable us to advise you on a design that will be the most beneficial to you. Please take a few minutes to read through and tick the boxes that apply to you and when you have finished, just send it straight back to us.

We will then assess your needs based on the answers you have given, recommend and provide you with a beautifully rendered and carefully designed 3D visualisation of your new sensory or immersive learning environment, including a formal quote for your consideration.

16 11 1 20	6.11							
If you need help with answering any of the questions, please do not hesitate to get in touch.			o get in	WHAT ARE THE MAIN NEEDS OF THE USER? PLEASE TICK ALL THAT APPLY				
Thank you for your time.					CONCENTRATION/ ATTENTION DIFFICULTIES		BEHAVIOURAL/ ENGAGEMENT DIFFICULTIES	
NAME OF PROJECT LOCATION DATE				MOTOR CO-ORDINATION DIFFICULTIES		SOCIAL/ COMMUNICATION DIFFICULTIES	5 🔲	
SECTION 1: INFORMATION ABOUT YOU AND YOUR SETTING				SENSORY PROCESSING DIFFERENCES		PHYSICAL NEEDS INC. MOBILITY ISSUES		
ADDRESS				LEARNING DIFFICULTIES		OTHER PLEASE SPECIFY		
					DO THE USERS HAVE ANY DIAGNOSES O	R CONI	DITIONS THAT MAY IMPACT THE GENERAL L	AYOUT?
NAME TEL:			LEARNING DIFFICULTIES		AUTISM			
EMAIL		JOB TITLE			PHYSICAL CONDITION SUCH AS CP AND MD		SENSORY IMPAIRMENT SUCH AS VISUAL AND HEARING	
JOB IIILE			NEURODEVELOPMENTAL DISORDERS		WHEELCHAIR USERS			
PLEASE TICK THE CURRENT SETTING THAT APPLIES TO YOUR PROJECT				OTHER PLEASE SPECIFY				
EDUCATION		OWN HOME						
PLAY / LEISURE		MEDICAL / THERAPEUTIC			SECTION 3: HOW WOULD YOU LIKE TO U	JSE YOU	JR SENSORY / IMMERSIVE SPACE	
CARE		OTHER PLEASE SPECIFY	<b>/</b>		PLEASE TICK ALL THAT APPLY			
SECTION 2: WHO WILL BE USING THE SENSORY OR IMMERSIVE SPACE				CALMING		HELP WITH SELF REGULATION		
				SENSATION SEEKING NEEDS		CONTROLLABLE ENVIRONMENT		
PLEASE TICK THE AGE RANGE THAT APPLIES TO THE USERS				DEVELOPMENT OF PLAY SKILLS		SENSORY PROCESSING DEVELOPMENT		
0-3 YRS BABIES AND TODDLERS		14- 16 YRS KS4			SUPPORT SENSORY CURRICULUM		PROMOTE ENGAGEMENT	
3-5 YRS EARLY YRS FOUNDATION		16-25 YRS CHILDREN YO	OUNG ADULTS		ALERTING / STIMULATING		GROSS / FINE MOTOR DEVELOPMENT	
5-7 YRS KS1		25-65 ADULT SERVICES			GRADED EXPOSURE TO PROBLEMATIC SENSORY EXPERIENCES		COMMUNICATION AND SOCIAL INTERACTION	
7-11 YRS KS2		65 YRS + OLDER ADULT SERVICES			OTHER PLEASE SPECIFY			
11-14 YRS KS3								18

## Survey

WHICH OF THE FOLLOWING ELEMENT IMMERSIVE ENVIRONMENT?	NTS DO YO	OU WISH TO INCLUDE IN YOUR SENSORY	′/	USEFUL FACTORS TO CONSIDER WHEN PLANNING THE LOCATION OF YOUR SENSORY / IMMERSIVE SPACE INCLUDE:
VISUAL		MOVEMENT		1. ACCESS TO THE SPACE
SMELL		SOUND		2. ENVIRONMENTAL NOISE (IS THERE LOTS OF NOISE NEARBY? WHERE POSSIBLE THIS SHOULD BE AVOIDED)
TOUCH		BODY POSITION / SPATIAL AWARENE	SSS	3. POWER (ARE THERE POWER OUTLETS AVAILABLE OR WILL THEY NEED TO BE INSTALLED PRIOR TO THE PROJECT)
WHO WILL BE LEADING THE EXPERIENCES IN YOUR SENSORY/ IMMERSIVE ENVIRONMENT?				4. WINDOWS (A ROOM / SPACE WITH NO WINDOWS IS IDEAL, BUT BLACKOUT OPTIONS ARE AVAILABLE
TEACHERS AND SUPPORT STAFF		PARENTS / CARERS		
HEALTHCARE PROFESSIONALS		OTHER		
HOW MANY PEOPLE WILL BE USING	YOUR SEN	SORY / IMMERSIVE ENVIRONMENT AT A	TIME?	
SECTION 4: WHERE WOULD YOU LIK	Œ TO LOC	ATE YOUR SENSORY / IMMERSIVE SPACE	:?	
SENSORY POD		ROOM ALLOCATED		
SENSORY CABIN		DEVELOP EXISTING SENSORY / IMMERSIVE ROOM		
NOT SURE PLEASE ADVISE				
			•••••	







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