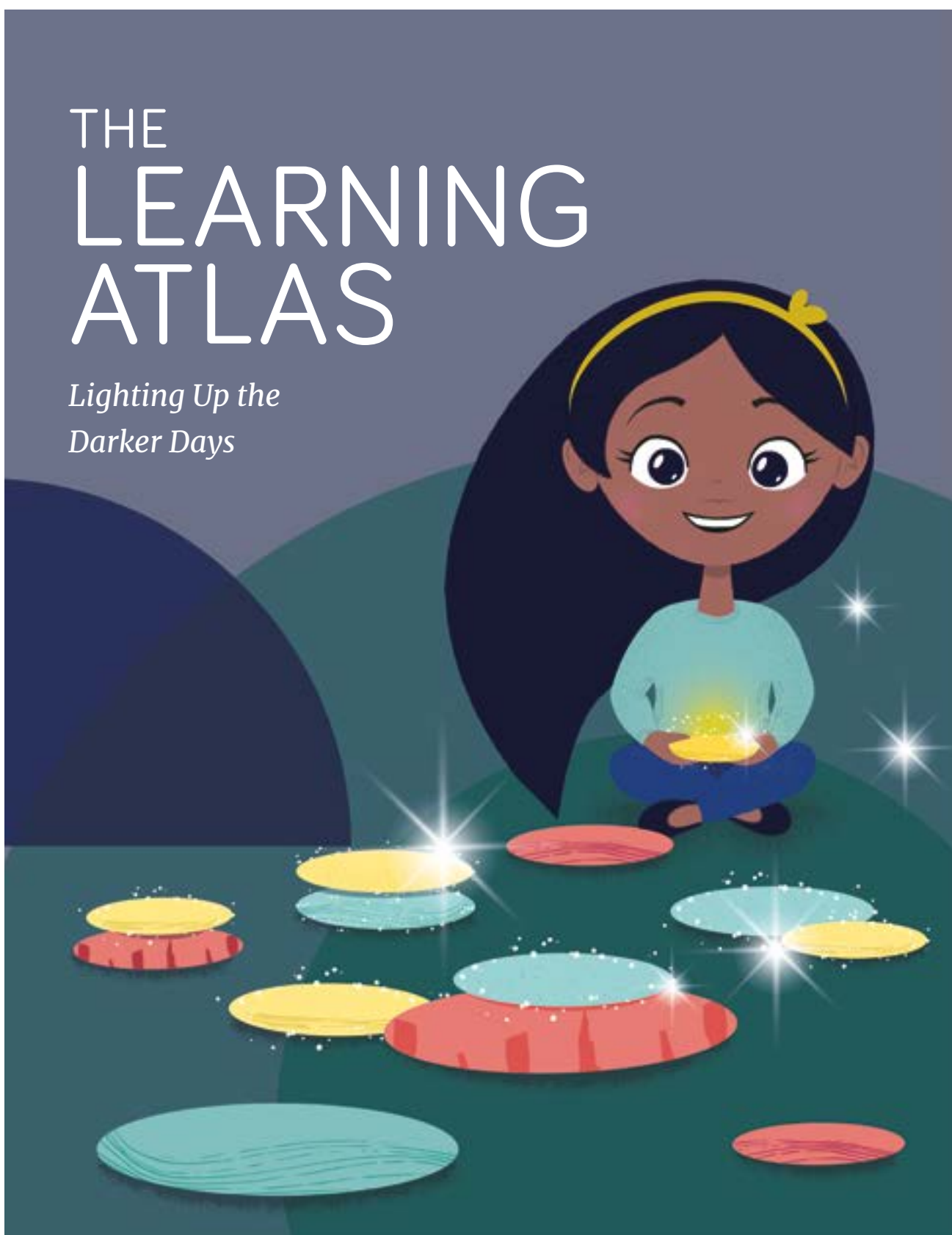


GLOBAL • EDUCATORS • LEARNING • INSPIRING

THE LEARNING ATLAS

*Lighting Up the
Darker Days*



FIRST EDITION

Inspiring our future together



Look at the world
with a child's eye.

It is very beautiful.

Kailash Satyarthi

WELCOME



*We are excited to bring you the first edition of **The Learning Atlas**. The Learning Atlas is a global educational magazine which aims to inspire and inform; taking inspiration from our innovative learning resources but most importantly: from you. The superheroes that have the power to change children's lives every day.*

Throughout this first edition, we hope to inspire you to continue to create and develop magical learning environments; bursting with awe and wonder. We want to share experiences that bring joy and inspire you to find yours. We want to encourage you to stop, breathe and be mindful.

From wherever you may be reading today, the world around us continues to present difficulties and challenges; both for ourselves and the children we help to nurture too. For this reason, we have decided to begin with our first theme: **Lighting Up the Darker Days**.

Light excites! It energises us, keeps up our concentration levels, it can create a cosy ambience and help us to relax.

As you read on through this global journey of experiences, you will discover that shining light on the darker days can be achieved both through using rich and varied sensory materials but also in the joyful, positive and mindful sense.

We hope you enjoy it!

A handwritten signature in black ink, appearing to read 'Lucy Norman'.

Lucy Norman

Editor-in-Chief
Head of Distributors, TTS



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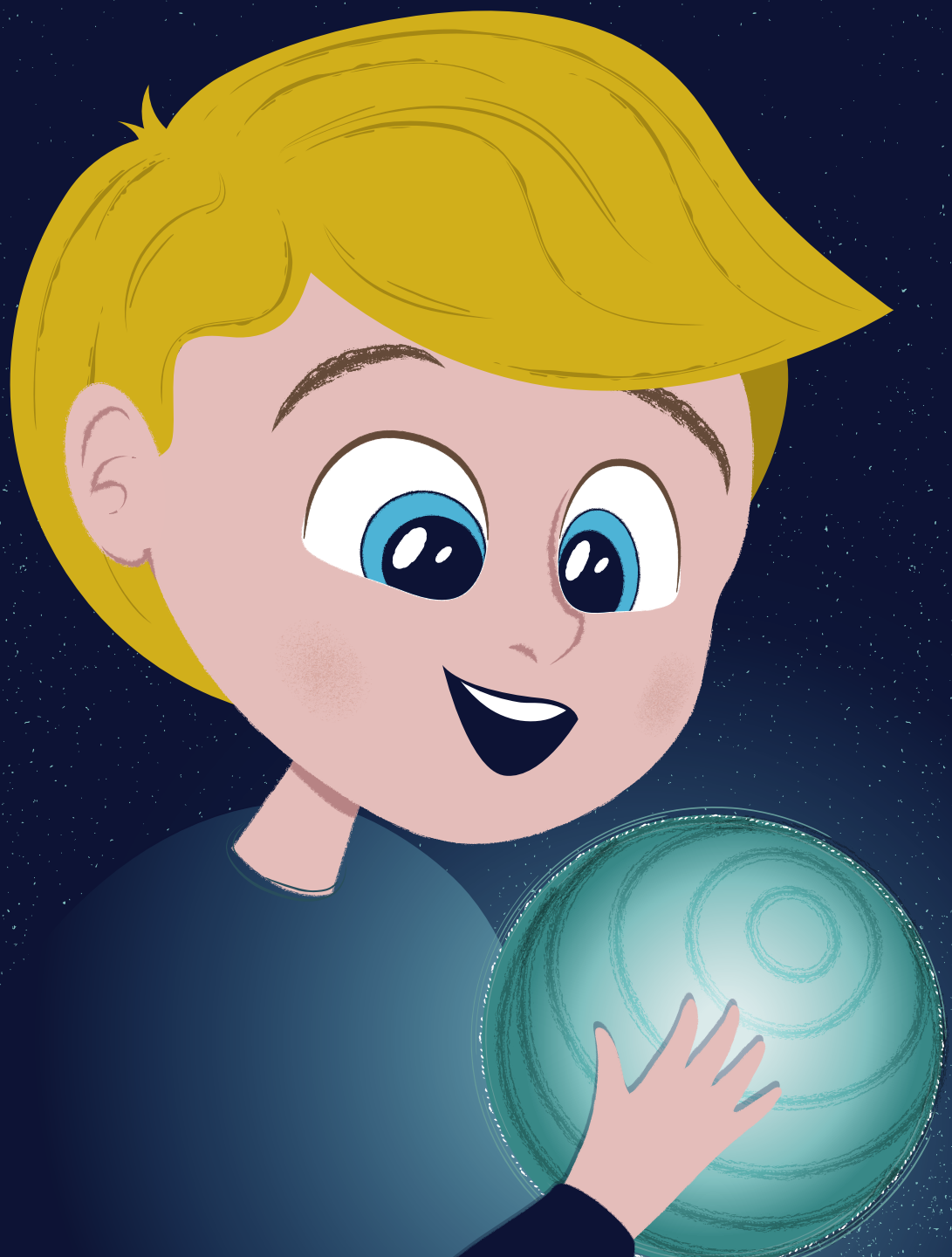
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These articles are
a collection of learning
experiences from around
the world

*Sit down, relax and
prepare to be inspired!*



THE MAGIC OF GLOW

Technology:

Underpinning, Enhancing and Enriching the Learning



From my experience, early years educators from around the globe are on an eager and constant quest to foster and facilitate exciting learning opportunities and provocations. We are intent on ensuring that the experiences delight, engage, enrich and nurture. It is a pursuit to find the potential for joy, to see the smiles and cultivate a sense of awe and wonder. Part of this mission involves finding resource materials that act as mighty catalysts. Who knows where today's experience will lead to or how it will influence their future paths and choices? We must not underestimate how wondrous learning experiences may generate mighty memories and may have a deep and lasting impact. How many times have you heard a famous person talking about how a teacher, a lesson or an experience in their education made a profound impact upon them?

Not all treasures sparkle, indeed a humble cardboard box holds the potential to be something magnificent. There are however some treasures that do indeed gleam and shine and for many children offering resources that are captivating, perhaps mystifying, absorbing and even amazing, might just be the stimulus they need. We want to give children engaging, magical, memorable experiences. It is also imperative to provide materials that are open-ended, versatile, inviting, pedagogically aligned, safe and accessible. This is where I want to draw your attention to the TTS Glow Collection, a range that children can interact with in a plethora of ways and utilise a host of skills and experiences all of which are heightened by the subtle ingredient of technology. The children themselves can literally light up their learning. I have observed the look of amazement on children's faces as the objects radiated a glow, how they solved the conundrum of how it worked and how they could make choices and create marvellous creations. I have seen children dance around with the cylinders, make them into transient art patterns and then post and position them into structures. The glowing spheres have been rolled down channels, hidden under sheer scarves and voiles, pushed back and forth to a partner, utilised to make marks and all with a subtle radiating light to add that extra element. It was so rewarding to see the children's faces as they walked in to see a collection of resources that could offer exciting possibilities. They were eager to experiment, explore and discover. For some it was such a huge surprise that these

blocks, rings, cylinders, etc. could all be transformed by their actions and could burst into a dramatic light.

We recognise that the world is changing in a rapid way and that children today have differing experiences from those of only a few years ago. The pedagogy may remain constant but we need to be agile to adapt and draw on new methods and approaches whilst still holding firm onto our educational core values.



Today's children are immersed in technology in their homes, their cars, in shops and in the street. They will see it as the norm that a device can talk to someone around the world or talk to who is at their door; that they can instruct a box in the kitchen to play a song, switch on the heating or tell them the ingredients for their meal.



By incorporating technology, it may add extra facets, extra qualities and experiences to children's play. I must stress however, it is about carefully selected resources and providing quality opportunities. It is not just about visual effects but creating a love of learning, a sense of discovery, a resilience and a context where skills can be nurtured and interests cultivated. It is about a blend of materials and approaches.

Technology does not have to dominate, but it can help underpin the learning.

These Light up Learning items can help young children make vital connections, to learn about cause and effect and encourage them to make discoveries and hypotheses. There is an added sense of challenge and the child may need to persevere and be tenacious, all qualities we wish to encourage.

So often, technology polarises views, probably because it is such a generic term and the thought of young children being passively engaged by screens may be conjured up. Blocks are a staple in any early years setting. Imagine your construction area full of all kinds of building materials in different weights, shapes, sizes and properties. Imagine then adding a resource that is equally relevant to building, stacking, loose parts play, roleplay, but this item magically glows. The child needs to manipulate the block and learn about how to make

it work in certain ways. I ponder if I had been building a castle that such blocks may have played a huge part in my fairy tale scenes. The children can create glowing spaceships, time machines, road structures, mighty towers and so much more.

We want imaginations to soar.

If we look at the blocks, cylinders, spheres, rings, etc. it becomes apparent how fundamental skills and schematic behaviours align with how they can be utilised. Some roll, can be stacked, transported, enclosed, lined up, used symbolically to represent something else and so much more.

Imagine walking into a room which was full of items that softly illuminated their surroundings and the child could actually interact with them rather than merely observing them.

They become immersed and directly involved with the play and they are creating their own sense of awe and wonder.

As an educational resource creator and being somewhat of a magpie, I collect, curate and I am influenced by the wonderful children, educators and designers I meet, the theories I read and approaches I experience. I am also motivated by inspiring and thought-



provoking resources. Finding a gem that is going to capture a child's interest or provoke an exciting response is so rewarding. We may see it as one thing but a child will embrace it in a wholly inspirational and innovative new way. We recognise that we may provide the resource but they become the architect of play. We have the potential to literally light up children's learning whilst being certain in the knowledge that they are securing key skills and laying firm foundations, all with that extra bit of sparkle.



The author:
Catherine L Clark

Catherine Clark is the Early Years New Product Development Director and in house educationalist at TTS. She has researched, investigated and developed over a thousand early years specifically designed resources during her fifteen years working for the company. Many of her ideas have won recognition and awards nationally and internationally.







Bright Lights, Big Curiosity!

What's the best feeling in the world? Awe and Wonder.

As a mum and teacher, who is passionate about the wee folk, my hope for every child, is that every day is full of awe and wonder and of course happiness.

To watch a baby or young child experience awe makes your heart 'sing'. Witnessing them feeling overwhelmed with admiration and excitement for objects and artefacts is such a joy.

This amazing world we share is packed with sensory information, bright, twinkling lights, the cacophony of traffic noise, the murmurs and hubbub of people chatting surround our children every day. Imagine their little brains, and how they respond to the heady scents and aromatic smells of cooking not to mention the memories created by the warmth of a cuddle, the heavenly feel of sand in their toes or rain on their cheeks.

I love the thought of our playful interactions becoming a forever memory.

If we expose our children to provocations and invitations in rich, stimulating environments they will become absorbed in using and understanding their senses, they will be inquisitive and open to any appropriate challenges to engage and to learn. They will use their own curiosity to drive their exploration and experimentation.

Curiosity comes in at least two flavours: a what the...? response when something unexpected happens and a 'I bet you that...' where you have some idea of an answer to the 'why?' and want to see if you are right.

As children pull back the material into a den or pause considering the butterflies in their tummies or the little shivers of anticipation rush from their toes to their cheeks, imagine their delight and excitement as they find a wonderful glowing world of fascination. A world with bricks that glow as they are hoisted and balanced aloft some magic pebbles or enchanted spheres.

Wait a moment and spot what captures their attention, what makes them smile not just with their lips but with their heart too.

What makes them clap, in excitement, skip and giggle with eagerness?

Could it be the mesmerising movements of the light up spinning tops, which in their imaginations have become a mermaid dancing, or a teetering tower of glowing stack and builds guiding the pirates to their treasures.

Step back and watch the tiniest response the children make. What made them respond?

Every time a child revisits, reuses, investigates familiar items but in different ways, their neural pathways become stronger. They need to want to do it again.

Do your resources make them want to re-engage, rewind and reignite their passion in play?

Take some glow spheres, cylinders or pebbles and wrap them in dull black fabric strips. Place them into a dark basket and enchant the children with a story of the basket of wonder and magic, that grants wishes and hopes. Watch each child begin to dream and imagine about the wonders they are just about to unwrap!

Offering different contexts, situations, invitations and changing your environment slightly, offers richness, breadth and depth to their thinking and again makes those neural pathways stronger.

Why not take the stack and build and weave them along a curtain pole, or ribbon attached to the wall? Cover an old mug rack or mug tree in fluorescent paint and encourage the children to slip on the light up bricks or build a number line beside each enchanting magical tree.

Science suggests that sensory stimulation encourages endorphins – happy, 'feel good' chemicals in the brain. These chemicals can become addictive, causing the individual to repeat the activity to renew the good feeling. Our spaces and places should be just as mesmerising, encouraging children to do it again and again. Repetition builds brain power!

Both flavours of curiosity, are like an itch.

For both types of mental itch, the best way to scratch it is to investigate. That process of investigation leads to discoveries and opportunities to develop our ideas and thinking.

Recent MRI imaging studies have shown that we learn better when we are curious about something. Our curiosity provides a reward mechanism in the brain, reinforcing learning.

Imagine a world where everything is the same, identical and bland. Don't let your play spaces be carbon copies of anyone else's. Fill your spaces with amazing resources that provoke thinking, discussion and challenge. Where each child can predict, hypothesise and philosophise their thoughts aloud.



Creating a space that is rich in irresistible learning opportunities, to be curious is part of our job. Every child should be eager and excited to pick up, turn over, find or discover wonderful and intriguing stuff!

Ask yourself, do our experiences draw a child in, capture each child's attention and stimulate their intrigue? Do our resources empower their thinking?

The brain changes and evolves due to the experiences we have. Experiences shape our brain. Experiences matter.

Thinking isn't just about little electro-chemical signals bouncing around inside the brain from synapse to synapse. At its heart it is about building a better internal model of the world which helps us understand and make sense of our external world and our place in it.

Finally ask yourself: is our environment worthy of miracles? Children are miracles, are your spaces worthy of your children?



About the author:

Alice Sharp
Early Years Imagineer
Adventures with Alice

Following Alice's 30 years of experience as a primary teacher, she is now an associate of the London Early Years Foundation and holds a Scottish Qualification Authority Accredited Centre qualification and works with all four governments of the United Kingdom. Alice is a Senior Lecturer in Early Years at Glasgow College, has guest lectured at the University of Glasgow, University of Wales, University Carmarthen and Queens University.

Alice is a multi-award winner within the Early Years sector and is the creator of over 200 specialist courses delivered all over the UK and around the globe.

The driving force behind everything that Alice has done and continues to do is the overwhelming desire to make a positive difference on the lives of practitioners and the children in their care.

To find out more, please visit:
www.alicesharp.co.uk/adventures



What is Democratic Education?

In Sweden, the pre-school and school's mission is not simply to teach children/students what democracy is. The entire school system must rest on the foundations of democracy. This means that by participating in their education you are also part of a democratic context; a social community where we take care of individuals' curiosity, issues and ideas for creating educational offerings that can be relevant to everyone in the group. As an educator it means that you lead and take the teaching further and deeper by listening to the suggestions made by the children, shown through their playful exploration.





Let There Be Light!

The role of the educator can be described as an attitude to people in general. The pedagogical leadership is about creating something unique in interaction with the people and the conditions we have around us where we are. You need to formulate your pedagogical intention, however, it is not possible to say in advance where the teaching will lead us.

This is a story about a project that was played out during a few winter weeks in northern Sweden. It all began with rhizomatic thinking about teaching where mathematics, language, science and aesthetics grows out of a common democratic process, where learning played out and where democracy as social community is the very foundation.

WE HAD ACQUIRED NEW BLOCKS TO USE OUTDOORS AND WE EXPLORED THESE TOGETHER FOR A FEW WEEKS.

The blocks were red and stackable. Slowly but surely, their qualities began to appear. Someone discovered that they had holes shaped like crosses on all sides. These holes could be seen through. We were looking at each other through the bricks when suddenly one of the children saw the low-lying sun through one of the holes. Here in northern Sweden, it is only bright for a few hours in the middle of the day during winter. The sun does not appear very often and when it does appear, it is just above the treetops in the horizon. When this happens it hits us, often with astonishment, because here in northern Sweden one longs for light all winter.

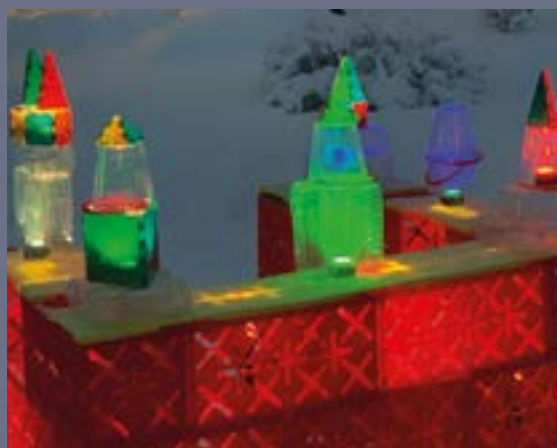
“The sun is shining in! It is shining in here through the cross in the block and out on the other side”, said one child.

Suddenly we all started trying to catch the light through the blocks, but we only had a few hours left as it would soon be dark again.

In the coming days it was overcast, but the fascination in the game of catching the sunlight through the blocks continued to grow. The sun never appeared, and we began to think about how we could continue to capture light through the blocks. We needed to add something to be able to continue exploring further the bricks in relation to light. So flashlights and mini lamps were picked up and placed near the blocks. The mini lamps could light up in several colours. One child in the group stated that the yellow colour closely resembled the sun. We tried the yellow light sources in our block structure and suddenly the light started to shine through the holes in the blocks. Not only did we see the light shining through the holes but also through the block's material, making the light look red.

We began to think about how we could further develop the brilliant construction. Someone had seen a house built of ice and when you lit candles inside it looked like the walls were shining. One of the children suggested that we could freeze our own ice cubes, but it takes some time, and we need to collect boxes that we can freeze the water in. Do we have any other ice-like material that we can use for longer periods of time? We started looking for transparent building materials and found Magnatiles, Glacier Blocks as well as transparent buckets that could be useful. We searched for pictures of illuminated ice buildings to find ideas for our construction, and we found examples from various parts of the world, including from an ice festival in China and the Ice Hotel in Jukkasjärvi, Sweden.

This time we decided to continue the construction in the twilight that appears a couple of hours after lunch to get a greater effect of the light in the constructions by using the natural light shift. A luminous hut became a luminous castle that rose to the sky at dusk. But at the same time everyone tried to be inside the castle and new ideas began to sprout. Next time we will have real ice blocks and build even bigger, so we can all fit together.



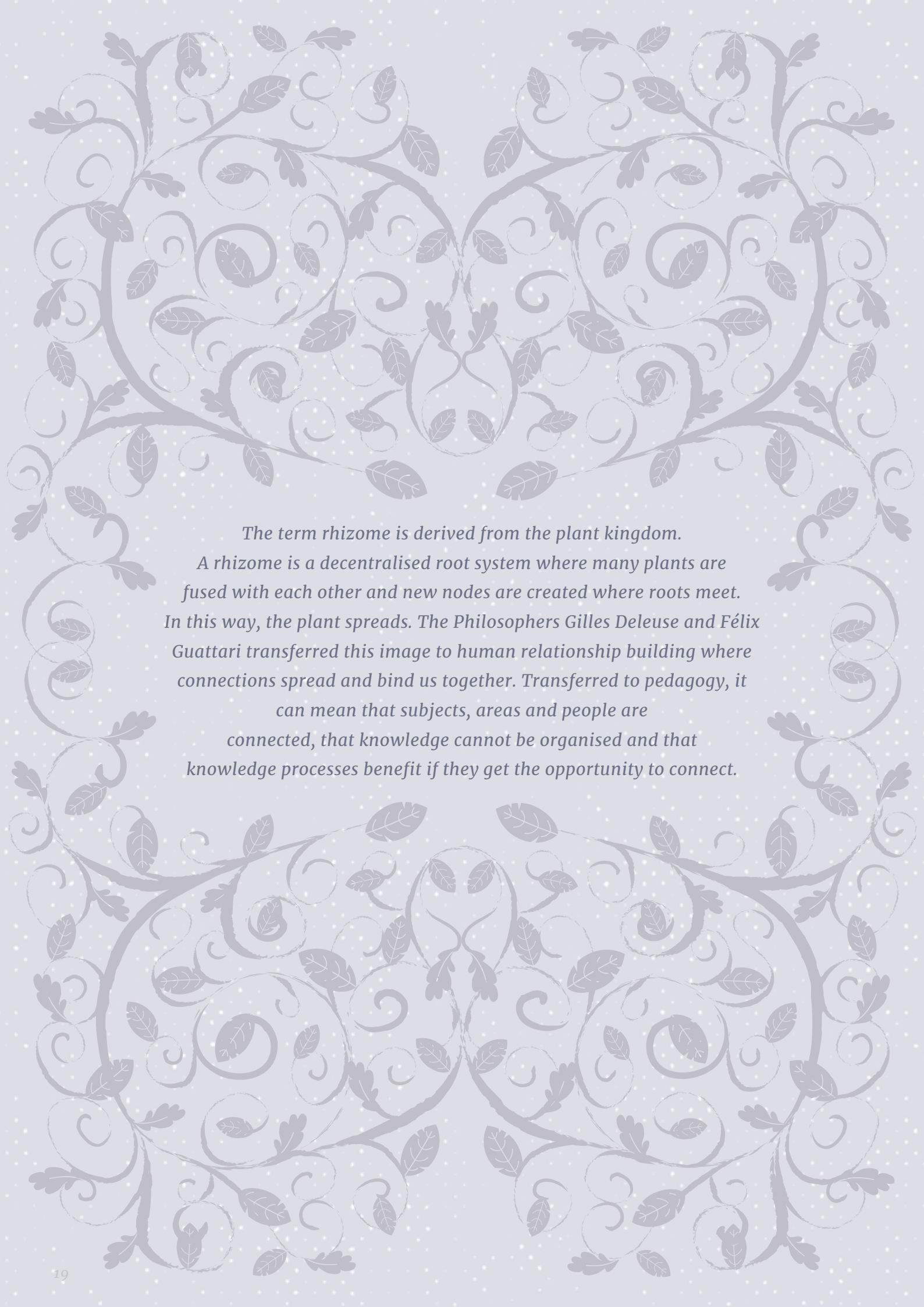
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Pedagogista, Educational advisor, Author and Social innovator. Currently establishing an Educational centre for pre-school students and teachers, families, and companies in the north of Sweden – @pedagogerian



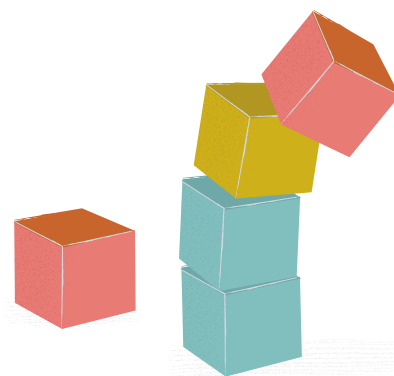
What does
'rhizomatic'
mean?





*The term rhizome is derived from the plant kingdom.
A rhizome is a decentralised root system where many plants are fused with each other and new nodes are created where roots meet. In this way, the plant spreads. The Philosophers Gilles Deleuze and Félix Guattari transferred this image to human relationship building where connections spread and bind us together. Transferred to pedagogy, it can mean that subjects, areas and people are connected, that knowledge cannot be organised and that knowledge processes benefit if they get the opportunity to connect.*

The Environment as an Activator for Learning



The Environment as the Third Educator

The physical learning environment is an important part of pre-school and children's learning. It is known as the third educator. The concept of "the environment as the third educator" originates from the Reggio Emilia philosophy and is about the importance of the environment, what is offered and how the material is presented.

It is widely considered that the environment and materials are of great importance to children's interactions, development and learning and rest on democratic values. However, it is not only about the physical environment and the material within it but also our teaching that acts as an important tool for promoting the values and theories that we choose to follow. This means that educators have children at the forefront, along with the knowledge that reflects both the learning objectives, the curriculum and is based on scientific research and proven experiences in both content and working methods.

Building a Learning Environment

There is no ready-made recipe for building, developing, or transforming a physical learning environment. An important starting point when building a learning environment is to start from the children's curiosities and ongoing development in connection with the pre-school's didactic strategies.

What do we think the children could find, explore, and investigate? How can we create environments that provide opportunities for enjoyable learning and meaningful contexts? How can we use the design of a setting and the children's interests to create transdisciplinary environments where children can explore a variety of materials and activities?

Building a learning environment is about staging, preparing, and transforming the physical environment through a holistic perspective where all parts of the curriculum are connected through enjoyable transdisciplinary projects. The room should be set up in a way which encourages social interactions and meaningful conversations to take place, where experiences will transform into learnings.

The learning environment should be one which invites varied and stimulating choices and supports children in broadening their knowledge and play patterns.

It should be based on wonder, curiosity, and joy and where the material is appealing, accessible and clear - an environment that is permissive for all children.

It must be adaptable and flexible and can be changed based on the scenarios the children are in, the project theme or the teaching taking place. Therefore, the materials should be rich, varied, imaginatively transformed, and displayed carefully in various configurations and characterized by their aesthetic dimensions.

Making the Materials Sing

How can we make the materials in the physical environment sing? What kind of material makes other materials sing? And what materials can help children sing?

A material can be silent and almost invisible but can be given new life when connected to another material. Together, the materials are transformed into something that can inspire, challenge and encourage children's exploration and learning.

If we imagine the materials as tones and rhythms and see the physical learning environment and educators as conductors, we can create musical harmony and ambience. Through the power of the material, we can create wonder and introduce engaging scenarios that turn into beautiful symphonies of singing material. But we need to have a humble awareness of the impact that different materials can have on us. It is therefore equally important to also reflect on the combination of materials which could create noise and a musical imbalance.

For example, a strip of warm white LED lights that lie along the table can easily make the pen and paper sing and invite the children to a harmonious creation, as our eyes are automatically directed towards the brightest point.

By being aware of the light, children can highlight certain surfaces or objects and combine light with other materials to either enhance or reduce the effects.

LIGHT AND SHADOW AS AN ACTIVATOR FOR LEARNING AND EXPLORATION

Light is a magical phenomenon that has the ability to amaze and fascinate children.

Working with light, shadows, colours, and reflections stimulates wonder and challenges children's interest in science. The subject area invites children to exciting contexts where they are given the opportunity to explore and investigate physical phenomena.

However, it is not only about us setting up an activity, but also about how we use pre-school didactic strategies to plan the teaching and bring it to life. This way we can support children in creating an understanding of the various phenomena and subject areas they encounter.

Light can change the perspective of everything it shines on or reflects off, regardless of whether it is sunbeams that reflect through the letter mirrors that hang by the window or whether it is a light beam from a flashlight. Depending on the position of the light and its angles, exciting changes can occur. Light can illuminate details that create curiosity, creativity and wonder and help us create a sense of clarity such as seeing what the room contains, what type of room it is and how it is intended to be used.

In addition to facilitating the understanding of the room, the lighting contributes to its character and how we experience something concrete to something abstract. With the help of light, you can create aesthetically pleasing dimensions and atmospheres that create an ambience but also signal a message.

When setting up a table with a lamp that shines on objects, such as a feather, miniature elephant and cellophane plastic, children can study and explore light in relation to the material as well as variations of the different shadows that occur. How the shadow is created and how it changes depending on the angle of light in relation to the position of the object becomes an exciting phenomenon that encourages and challenges children to try their own ideas and theories.



Dynamic Learning Environments with Colour and Light

A basic idea that prevails when I build environments is that they should be transdisciplinary and rhizomatic. Children should be able to move between different subject areas and disciplines in the room. With a changeable, adaptable, and flexible environment, you can mix and match with luminous materials such as cubes, blocks, cylinders, pebbles and balls to transform and change the environment through very simple but effective ways.

With different light materials, I have had the opportunity to stage four different environments, by changing colour and combining materials to both change and strengthen the room's identity. Different colours of light sources can be used to create different exciting atmospheres.

Colours symbolise and create associations. The colour blue can be linked to water, just as the colour green links to nature. The different colours in light up materials have made it possible to create clear and inviting environments by changing the brightness and colours according to different learning themes or activities that I want the children to meet and explore.

The first thing you meet in the light room is construction material that shines attractively on the mirror table. Children

can both explore and investigate the light and colours as well as building and constructing with different materials. Building and construction is a tool that enables children to understand the various phenomena in society. It allows children to create structures through play. A creation that consists of aesthetics, geometry, language and empathy, mathematics and science in connection with exciting social interactions.

With the help of a projector, you can create a digital learning environment, where digital meets the analogue in an enjoyable way. The projector is a fantastic tool for creating captivating and changing learning environments. By projecting images or films, I can strengthen and deepen children's explorations and invite the children to enriching play areas and learning contexts. With tools such as the projector, imaginative and exciting environments are created that invite us to other dimensions, where imagination and reality can be connected and united. We can be immersed in the savannah of Africa with the lions, be fascinated by swimming fish in the sea or be amazed by the light that shines from the projector; children get the opportunity to play, learn and explore in inviting and challenging worlds of play.

A light table is also an exciting tool for studying light and colour which invites exploration and investigation. With a light table, children can, for example, examine nature's beautiful phenomena





phenomena such as plants and flowers, study biology, science and humans, as well as animal skeletons and anatomy with the help of exciting X-rays. They can happily explore the basic properties of mathematics with the help of rice, sand or water in connection with objects such as buckets, decilitres of measurements, copper spoons and funnels. In this way, children can be given the opportunity to develop an understanding of, for example, measurement, weight, volume and number to reason and reflect mathematically.

With transparent, coloured stones and mosaic pieces, children can explore art in relation to patterns. They can study coloured cellophane plastic in connection with light reflection and colour mixing to see and discover colours in different ways. They can build and construct using transparent blocks that encourage 3D buildings and new perspectives.



These fascinating materials encourage exciting interactions at the light table and create conditions for enriching teaching opportunities where children, with the help of educators, can create understanding and knowledge about the subject area.

Mirrors are another excellent addition to the environment.

Mirrors create depth, reflections, wonder and they excite young explorers. With the help of mirrors children can also explore themselves. The mirror becomes a tool for exploring the child's own self-image, identity and body perception and promotes an in-depth understanding of mathematics, perspectives, and symmetries.

Mirrors also stimulate the senses and play a role in how we experience our physical bodies and the discovery of the body as a tool, as well as investigation through perception and vision of the room.

One of the last but equally important aspects is to offer linguistic and aesthetic learning environments that enable each child to find their way of expression through language.

It is about giving children the conditions to investigate and understand their world through rhizomatic learning and expressions. Where they can develop and affirm their skills through a hundred ways of thinking, of expressing themselves and in connection with image, creation, drama, music, digitality etc. Therefore, there is also a place in the light room where children can express their thoughts, hypotheses, and their theories through the expression of art, such as drawing, sketching, painting, shaping and forming.

There are a lot of exciting materials to add to the environment to create fun and meaningful contexts. Contexts where children can meet, explore and develop in relation to the wonder of learning.



About the author:
Nea Elyoussoufi

Pedagogista, Educator, author, lecturer and inspirer.

Author of the book: Digitalitet i förskolan.

The owner of the Instagram account @pedagog.inspiration, with over 18.7k followers.





A Review of the TTS Dark Den...

or perhaps better named as 'The Cube of Experiences'

The Cube of Experiences is everything that the name says!

An oasis of possibilities for the children to experience, try out, understand and learn.

In this magical place, many of the children's abilities and skills are trained and everything is done while they are playing.

COLOURS

BUILDING AND ORGANISING

SPINNING

CREATING

ROLE PLAY

CUDDLING

RESPONSIBILITY

PATIENCE

TURN-TAKING

FANTASY

MOTOR SKILLS

COMMUNITY

DARK AND LIGHT

Children also learn how to light up and turn off the different glowing resources. They develop a basic and age-appropriate understanding of technology; that the various materials need to charge.

For some children, often the younger ones, it can be a bit scary to be inside the cube. But thanks to the fantastic glowing products, the curiosity takes over. For most of the children it is lovely, and some just like to be alone for a while.

Joy and playfulness are at the centre!

At Prästgårdens Förskola we think that the cube of experiences is really engaging and fun.

This is what children said about the Cube of Experiences:

"IT IS SO NICE BECAUSE IT IS SO PRETTY"

"IT IS EXCITING TO PLAY INSIDE IT!"



CUSTOMER REVIEW

"We wish that it would be a bit bigger and with a larger opening so that the educators can also enter easily."

Have you seen our larger version?

- Pops up in seconds
- Easily accessible by wheelchair users
- Removable barrier for versatile use as a ball pit
- A perfect budget solution to a sensory room.

An Interview with

Laura Dunand: from a leading private childcare network in France



Laura Dunand

With extensive experience with young children and mothers, Laura has explored several areas within the field of Early Years education.

Previously, she held a scientific baccalaureate in engineering and continued studying science over a few years. Nonetheless, following a discovery on different modules, she uncovered a passion for early childhood and thus decided to follow a career path within Early Years. With this, Laura resumed her studies at the School of Educators of Young Children in France and embarked on various internships in different fields and structures specific to the profession she was pursuing in Early Childhood. Now she works for one of the largest nurseries in France, offering materials, workshops, support and above all an atmosphere that cultivates development and learning for young children.

1. WHY WOULD YOU RECOMMEND CREATING A SENSORY SPACE IN YOUR NURSERY SETTING?

A quiet refuge:

The structure of our setting means that children are part of large groups



all day, either across groups of 12 babies or medium to large groups of 27 children. Children are therefore present amongst the emotions, actions and behaviours of many others around them. Sometimes it is hard for them to be able to isolate themselves or build a bubble to find a moment of calmness and solitude. The idea of offering a time of awakening, or a Snoezelen space such as sensory refuges, in small groups, is to offer children a time where they can practice calmness. The child will be able to sit down, calm down and rejuvenate by refocusing on his own emotions, following the daily hustle and bustle and fast paced activities in a child's day. Accompanied and in small groups, restless children will be able to find a space to soothe themselves, in a complimented atmosphere that

provides serenity. This space can provide opportunities for adults to talk to children about emotions and how to channel them.

Awakening of the senses:

The young child is a sensory being. From birth, and even long before, a baby will discover the world through his senses. The bright spaces and Snoezelen, will allow the adult to offer the child a time to play and develop several of his senses at once.

- Thoughts: through the play of light, with bright, phosphorescent objects, bubbles or a luminous atmosphere.
- Touch: by objects of different materials which are rough, soft or smooth.
- Hearing: through the broadcast of quiet music or the sounds of nature.



- Taste: the smallest children tend to “taste” objects on offer. Therefore, workshops must always be supervised to ensure safety.
- Smell: by scents on cushions or smells around the room.

A real moment for exchanging and sharing:

Offering this workshop in small groups of children will allow adults and children to find moments of individual exchanges that may lack during large group interactions.

Some children may find it difficult to rest during playtime. It can get to a point where children may not approach the adult who could already be occupied with other children. A moment within a small group, can be the perfect opportunity for children to express their individuality with the adult or with other children. For the adult, it is an opportunity to observe children in a different context so that they can try to understand them in all of their dimensions.

Evolving in a serene and calm atmosphere, the exchanges can also be more settled, with whispered words, wonder, careful observation and a sharing of games in calm, slow gestures. It

is an opportunity to verbalize your emotions, to learn how to channel them and to find ways to recharge your batteries. But also to talk about how these emotions make you feel and what they make you think. The adult is present in the room to ensure the calmness and safety of children and equipment but also allows to observe this sensory discovery. It is up to the child if they wish to express their thoughts, senses, bodies, emotions, colours or experiences.

Why work on light in a crèche (nursery):

In my project, I chose to work more specifically on light and on the different sources of light that exist, both natural and artificial light. Sight is a sense that will develop from birth and will gradually refine. From a small colour palette and vision of proximity, the child will move to an extended and completed range of colours. Light will stimulate the sense of sight through the observation of different colours, reflections, shadows, and opacity. Light is a natural phenomenon (sun, luminescence) that will allow for many experiments and sensory discoveries. Not only this, but it provides a different approach to science and an enrichment of vocabulary.



2. HOW DO YOU IMPLEMENT YOUR SENSORY SPACES?

The installation for a Snoezelen space will mainly involve setting up texture lighting games. The adult will choose the materials in order to offer children a colourful atmosphere with games. In practice in our crèche, we unfortunately do not have a room that can be dedicated exclusively to a light learning purpose or a Snoezelen room. We therefore offer light learning in the morning or evening, when the natural light weakens. This is done in the living room to set up an atmosphere or in a sleep room for a small group experience.

- **Bright atmosphere:** In the mornings and evenings we offer children bright atmospheres thanks to colour lamps and sensory lamps (sensory lamps provide light and nature sounds). These atmospheres can be set up in the living room or sleep room and can become associated with relaxation games. They allow for smooth transitions when children arrive in the morning and when they leave the nursery in the evening.
- **Sensory games:** Setting up a Snoezelen atmosphere with a luminous surrounding area, calm music, sensory balls, light discs and mood lamps.

We prepare the room by placing the resources in the children's rest room. Mattresses can be provided for children who want to lay down and watch the lightshow while others handle discs, Legos, balls and other resources. Children are invited to enter in small groups to ensure calmness in the room.

3. HOW DO CHILDREN REACT TO THE ACTIVITIES CONDUCTED WITHIN THE ENVIRONMENT?

When bright atmospheres are offered to children, most are receptive to this atmosphere.

The luminous atmosphere soothes the child, they like to stand next to the lights and observe the changes of colour. The older children name the colours, while the younger children challenge the adults with each change of color.

In the evening, the atmosphere is quite hectic. Fatigue is felt and children usually wait impatiently for their parents when they see those of others arriving. It is a time that often brings tears and frustration for children, even conflicts. The luminous atmosphere captures the attention of a child and offers them a sensory atmosphere that soothes them and offers them a space of calmness whilst waiting for their parents.

Young children are naturally attracted to light, some play with the light up resources and games on offer whilst others take the opportunity to rest and just observe from afar, taking advantage of the atmosphere. In the morning, upon arrival, children may find it difficult to separate from their parents, but they willingly enter the nursery by going to the light up area. Children tend to be surprised when they see different lights. We see wonder and curiosity, followed by pleasure in their laughter.

4. WHAT IS THE IMPACT OF CREATING A RICH, SENSORY LEARNING ENVIRONMENT?

Our French nursery strives to help and support every child to develop and reach their full potential. Our educational mission aims to promote the discovery of sensory experiences of all kinds, and light is one of them. Each crèche (nursery) sets up its own projects, in connection with the history of the structure and its teams' recommendations. The pedagogical orientations and educational mission to professionals invites us to set up playful, sensory environments.

It is the diversity of sensory experiences and the proposed play and motor spaces that will enable the child to understand their surroundings; to learn, to discover the world and to discover himself. By proposing a rich environment, we invite children to choose for themselves and to experience what they need, when they need it – each child evolving at their own pace.

A pleasant environment will allow the child to enjoy experimenting and thus learning, the child is an actor of his development and builds his learning and self-esteem. We thus help them to develop their senses, imagination, scientific and logical thinking, their understanding of others and the world around us.





Contemporary Pre-school Education in Serbia

In 2019 Serbia adopted a new programme of learning and development across pre-school institutions with the aim of enriching children's development and children's welfare through meaningful relationships with their peers, teachers and the physical environment.

As a result of the significance of this programme, considerable financial resources have been invested in Serbia and particularly into the city of Belgrade.

The Secretary of Education, Slavko Gak, commented "The City Secretariat of Education and Child Protection will continue with the procurement of new, innovative tools which support the implementation of our new programme across nurseries and pre-schools. We aim to provide our kindergartens with appropriate furniture for indoor spaces, attractive and secure playgrounds and the most advanced means of learning with a diverse range of creative materials used around the world".

In light of this programme, we are now gearing up to equip kindergartens with

the appropriate tools, resources and learning materials; consequently we have enhanced our product proposition with TTS's products which directly correspond to this programme's requirements, as they are made of various materials of different textures, exciting light and sound effects, fantastic design and most importantly they are multifunctional.

Whilst writing this article, we decided to share some of our kindergarten's observations that already work with light and sensory materials today.

Light cubes, balls, cogs alongside their light and sound effects have a calming effect on children who enter the kindergarten for the very first time, as they feel restless and uneasy when leaving their parents.

Cubes that change colour, balls that glow and cogs that light up when spun all trigger a positive reaction and children immediately become distracted as their curiosity takes over.

Light tables and light panels are also important in children's adaptation to a new environment. Light tables offer endless opportunities and new challenges for children; combined with different materials, coloured prisms, transparent wooden structures, translucent objects, ropes, flowers, pebbles, foil, coloured feathers - all these encourage children to experiment, imagine, make changes and combine materials.

Interactive sensory rooms with projectors create a research space, enhancing inspiration, enjoyment and cognition further. Projected light, thematic slides, constructions of different sizes, colors and shapes; wooden shapes, wire figures, paper strips, all were offered to the children to complete the space in which they could observe spatial relations amongst the objects. The place and fit of the object in the projected image, the enjoyment of the constructions, the imaginative role play and children's dramatisation in the given setting all contribute to enhanced learning and development. It was particularly interesting to include acrylic light mirrors

in this activity, which allowed the children to see things from another perspective, as objects in the mirrors look different; this 3D dimension introduced a new experience of space and children's perception of it. The installed acrylic light mirror system creates excellent conditions for children's play, imagination, and exploration.

The joy of exploring shadows and light contributed further to our children's learning and the joy of learning. Children were particularly intrigued by exploring shadows emerging from translucent objects, as multicoloured images on walls, floors and furniture appear when light shined through transparent objects.

Reflectors and light panels added to this exploration by allowing children to experience light in new ways.

Children were particularly drawn to the shadows visible and embedded on the walls, generated by the projector. Children were delighted and felt totally fulfilled by such magical creations, as this brought shadows to life whilst adding new dimensions and allowing children to experience light and shadow in many new ways.

Further, the sensation of sand has the utmost relaxing effect on children, as they enjoy exploring different lines, shapes and images. Introducing coloured sand expands their curiosity further; with its structure and texture, the sand represents an additional sensation and an opportunity to create new shapes. Sand and water activities are exceptionally useful in group activities too; funnels, bottles, pouring and spilling - all these actions form an integral part of children's play and imagination. It is an important sensory game that we use to stimulate visual and tactile perception, development of the attention span, logical thinking, skills, precision and verbal communication. Children learn about water, its importance, qualities and distribution.

The sound element of water contributes to children listening as they hear fast streams, slow dropelts and rainfall.

The outcomes of this approach successfully translated onto paper as children's artwork (rainbows, rain, bubbles, rivers, seas, boats). We would particularly like to highlight the development of children's environmental awareness and their thoughts on water pollution that came out of this activity.

The core of teaching pre-school children can be encapsulated in the following words - play, interaction, curiosity, joy, knowledge, imagination, risks and time. Whilst playing, children develop their skills on several different levels; they think, solve problems, speak, move and connect to others. This is crucial for the well-being and the development of every child as they learn through play in their own different ways and it is up to us, adults, to support them and provide the right environment for their growth.



About the author:
Zorica Mulić

Zorica Mulić is a pedagogue with over 30 years of experience in pre-school education. Twenty years ago, she established her own company, Zomex, that since, has been successfully supplying kindergartens with furniture, didactics, art and crafts, literature and more from around the world.







The Theory of Colours

in Pre-School Education

The theory of colours counts as an important part of the curriculum and development plan in pre-school establishments and even influences how they care and support for their pupils. Small children perceive their surroundings with all their senses and process the information in order to find their feet in the world. Educators support this development with specialist pedagogical knowledge and suitable materials, each of which provide the appropriate curricula and impulses. At the forefront of each respective supportive measure, the child. The following activities are planned and carried out, based on the child's interest in the world around them and their inquisitive nature. A Swiss pediatrician and development psychologist once stated: "The child is active: it develops out of itself. The child is selective: It seeks out the exact experiences that correspond to its current level of development." So if the children within a group or class show interest in colours and how they are formed, the educator can provide empathetic, child-friendly scientific impulses which enable the children to learn and understand the theory of colours.

How is color theory supported by the use of light?

Colors and light go hand in hand, but not only in how they are processed optically. Learning about colors can also be supported using luminous, colour-coordinated support material. The addition of light makes the colours perceptible to the brain. Light is also fascinating for toddlers. This results in a valuable learning opportunity for children of a pre-school age.

What is color theory?

The concept of color theory in pre-school can initially be divided into two sections: the colour wheel including the primary colours and for smaller children, the abstract concept of colour perception. On the one hand, different primary and secondary colours can be examined and created. On the other hand, child-friendly diagrams and stories can be used to explain how the eye and the brain process colours.

It begins with how individual colours that the child encounters within their surroundings can be classified. Colours in books, group rooms or outdoors in nature can – with a little help – be easily identified and learned using simple games.





Tip:

Offer your children a multitude of sorting games. Light-Up Glow Construction Bricks or Glow Pebbles provide a good basis when placed in front of baskets that have been marked with a corresponding colour. The child's task is to collect things in these colours from around the room and to sort them by colour into the baskets. The activity can be extended to include colour theory beyond the primary colours.

What effect do colours and light have on early childhood development?

Different colours have different effects on mood. Red can be stimulating, but with excessive use, the colour red can also promote restlessness. Even the smallest of children often perceive the colour red as a warning. Blue on the other hand is widely regarded as a cool, relaxing colour. If you are aware of these effects, you can design the pedagogical communication of the colours accordingly. As such, the meaning of the individual colors can be conveyed to the child from a very early age. Provided appropriate educational support is given, even the lush green of a meadow can resonate with a child as the colour of nature and ecological mindfulness.

Ultimately, different colours can not only impact on mood but also provide deeper significance. Communicating this is not just in the hands of the educator but also in the best interests of the child.



Tip:

Observe the children in your group / class closely and look out for organic pedagogical starting points. The learning process is usually most successful when the children act intrinsically and are motivated to discuss colours and light.

Which development goals are supported by colour theory?

The theory of colours doesn't just encourage the understanding of the world around us. Communicating the theory of colors and discussing each individual colour also promotes the child's language skills. When a child engages in dialogue with other children or an educator, their ability to express themselves is strengthened and they are able to form opinions. Even toddlers can have a favorite colour and name it.



About the author:

Janine Landwermann - Online Editor, Blogger

After studying English, Book Studies and Cultural Anthropology and working a variety of jobs in business and administration, the author found fulfillment in dealing with educational topics.

In Betzold, German partner for educational resources, Janine Landwermann has found her creative home and is now part of the Editorial Team that oversees the Betzold Blog and its contemporary, creative, everyday pedagogical content.



How can colours be taught in kindergarten?

Sorting games and experiments are best for learning primary and secondary colours.

Using light-emitting resources to enable colour mixing:

Glow Pebbles can be used for this purpose (the individual colours of which can be set at the push of a button, thus increasing the flexibility of the experiment). When wrapped within thin chiffon cloths, different shades and colours can be created depending on the colour of the pebble and the cloth.

Sort colours by collecting objects:

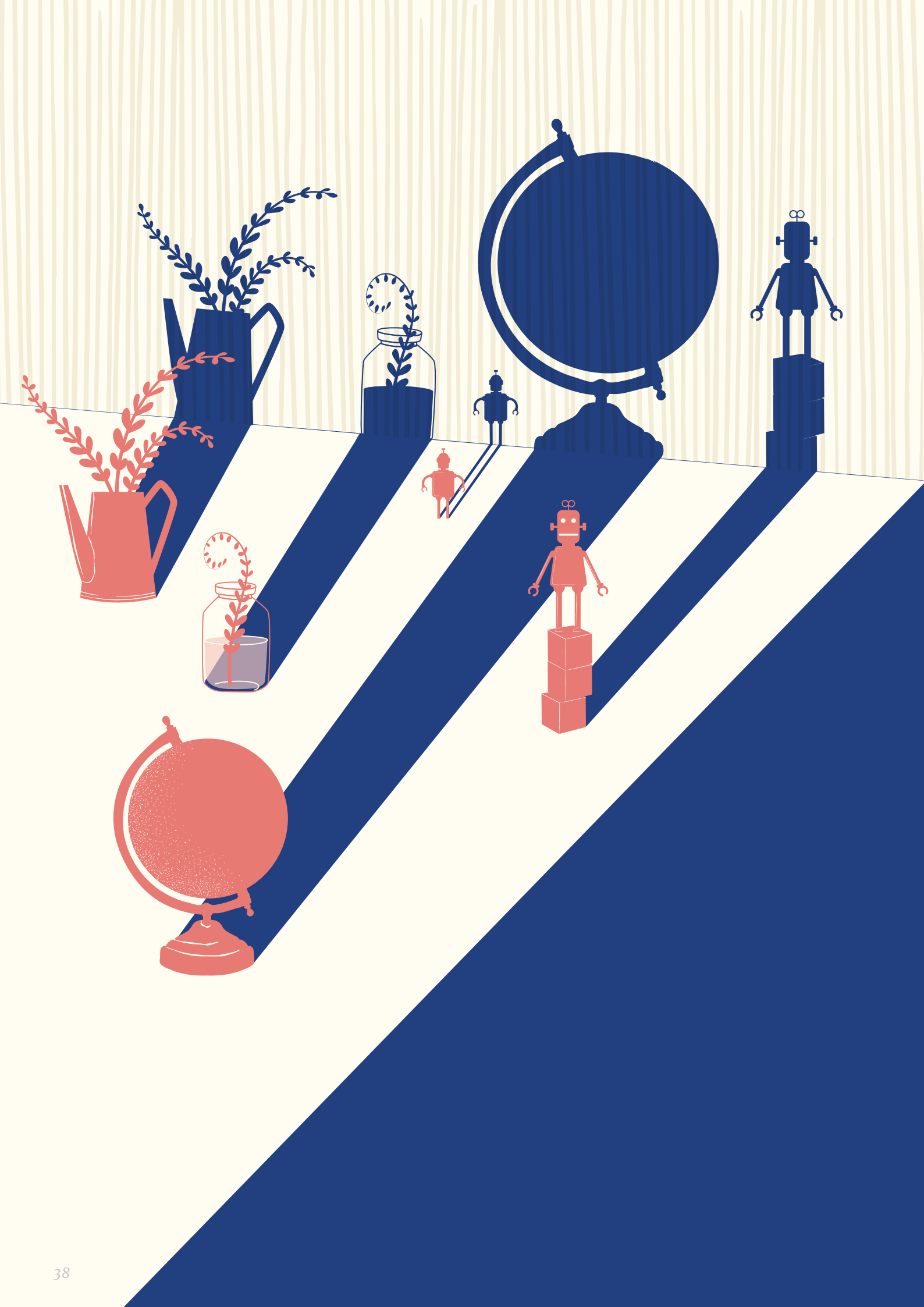
Set up baskets displaying the primary colours within the group room. Support the colour selection with suitable luminous resource (these attract the child's attention). Now ask the children to collect matching-coloured objects and sort them into the appropriate basket.

Constructing with colours:

Learning colours and shapes is very closely linked. Use different coloured building blocks to give the children the opportunity to discover geometric figures and different shades of colour. With educational support, children can group colours and name geometric figures from a very early age.

Light Art:

Art surmounts the limits of what can be taught in pre-schools, through the playful and free development of creativity. A joint work of art made of bright colours invites you to linger and talk. Task: Introduce the children to a light artist and his work. The children discover the art at their own pace and understanding. Now instruct the children to construct a work of light art from brightly colored components – whether Light-Up Glow Construction Bricks, Glow Pebbles, luminous cord or other glow materials. Once completed, have the children “visit” the work like they would a museum and allow the artists and visitors to discuss the colours and shapes together. Creative work and learning about colours go hand in hand.



EXPLORING LIGHT & SHADOW



natural and artificial light sources such as lamps, torches with colour filter options, Light Up Glow Spheres, Light Up Glow Cylinders, Light Up Glow Bricks, etc. After a variety of experiences with light up tools, young children will not only gain confidence and understanding of the different methods of scientific investigations but will also devise new ways to explore the materials in order to see and understand its cause and effect, and thus its multiple uses (Schaefer, 2016, as cited in Hill, Stremmel, & Fu 2005; Daly & Beloglovsky 2015; Schwall 2015a).

Opportunities for wonder surround us, we just need to pay close attention and notice what is within the environment.

Objects, toys, materials, reflective surfaces—they carry hidden messages that are waiting to be found! When our eyes begin to notice, to see, to wonder about its “other” uses, materials become provocateurs of wonder, tools for scientific inquiry.

You can promote STREAM inquiry skills, including observing, comparing, predicting, testing ideas and reflecting, by presenting materials in new and unexpected ways. This technique will entice curiosity, questions and wonder! According to Vygotsky, the materials that teachers use as instruments for teaching and how they choose to arrange them, can trigger higher levels of mental processes (Schaefer, 2016, as cited in Kozulin et al., 2003).

Using materials in varying ways can open up multiple learning opportunities in young children. (Penfold, 2019, as stated in Lenz Taguchi, 2009 & 2011; Odegard, 2012; Pacini-Ketchabaw et al., 2016). For example, translucent boulders may open up learning around design, arrangement, balance and height through stacking, building and projecting its shadows.

The challenge is: how many ways can the same material be used?

The Language of Materials

Creating STREAM environments where children can make discoveries through light and shadow play.

The theories of Piaget, Vygotsky and the work of educational researchers, helps us infer the influence and value of tangible and intangible materials as tools for the acquisition of cognitive functions.

Light and shadow materials used for investigations are a natural source of wonder for young, curious learners who always seem dazzled by this type of play. With careful planning in the environment and creative use of materials, light and shadow play becomes a game for children to explore STREAM (Science, Technology, Reading and writing, Engineering, Arts, Maths) concepts while supporting schemas in early learning.

When offering new open-ended materials, children typically begin the inquiry process by wondering about its use(s). When encountering materials that ignite curiosity, children immediately begin to wonder! Does it make sounds? Does it light-up? What does it do? Throughout the investigation process, their senses become engaged as they use familiar scientific strategies that they have used in prior experiences. At first sight, children need time to explore the materials’ physical properties, textures, qualities and features. Just like when a person learns a new language, children go through the same process of learning STEM practices and become more knowledgeable after they are immersed in them (McClure, 2017, as cited in McClure et al., 2017).

For a light and shadow play experience, children must have unrestricted access to

TOOLS TO EXPLORE LIGHT AND SHADOW PLAY

Materials: Torches, colour filters, colour cellophane sheets, translucent blocks, drawing paper, mark making instruments.

Procedure:

Select a book about shadows to read with the children. Have a dialogue about what they know regarding shadows and their experiences with light. Invite the children to explore the materials and remind them not to shine light into their eyes.

Observe and document their comments, observations, questions and ideas. Make sure to give children the time they need to process their thoughts, predictions, and hypotheses. Next, look for ways to test and challenge their theories, help them express their findings and analyse their processes to solve problems through trial and error (Schaefer, 2016, as cited in Clark, 2006).

Ask questions that will prompt multiple answers, i.e.: How are shadows formed? How many coloured shadows can you make? How can you transform the size and the shape of an object's shadow? Don't be shy to use creative and fancy vocabulary! Invite children to investigate the use of their torch by wrapping its light with coloured cellophane sheets using rubber bands. Talk about what the children think makes the torch light up and what they think is inside.

Variations:

Allow younger children to play with turning the torch off and on.

Following Piaget's suggestion that children learn by actively building their own knowledge and creating their own theories, encourage children to

plan how to test ideas and make predictions. Provide multiple opportunities for them to co-share their findings and work together on solving problems. Have rulers and other measuring devices available. Encourage creating shadow puppets for storytelling. To document their work, take photos or videos of their investigations and encourage them to draw, write or dictate their thoughts. It is also recommended to use charts and graphs to help children analyse their results.

Providing a creative space for light and shadow exploration gives children a fun way to engage with materials that develop critical thinking skills.



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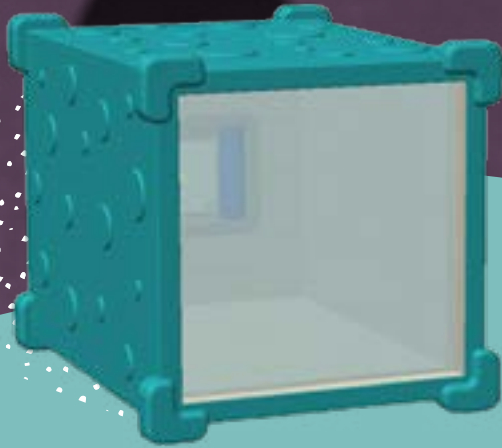
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About the author:


Paola Lopez

Paola Lopez is the founder and executive director of Kinderoo Children's Academy located in Ocala, Florida, USA. Her devotion for advocacy, diversity, innovation and alliance for the rights of children— has led her path to a life-long journey of pedagogical research. Her primary goal is to equip teachers and children with skillsets and mindsets that are essential in a world of innovation through the practice of developmentally appropriate practices, documentation, reflection, and transformation.



Early Years

PROJECTOR

- 
-
- *Long life LED light – safe for young eyes*
 - *Includes protective jacket*
 - *Supporting a Reggio inspired approach*
 - *Wire Free – five hours of continuous use*
-



Introducing the TTS Early Years Projector

INNOVATION

We are proud to launch our unique, innovative Early Years Shadow Projector. This projector is so exciting as it offers so many possibilities, meets all the stringent safety requirements necessary, is rechargeable, portable, and so very versatile.

THE INDEPENDENT CHILD

What is perhaps most exciting is that the child is the instigator, is at the heart of all the decision making rather than reacting to a light source placed there by the educator and they then go and work with the chosen materials around them. We wanted the child to be involved in all aspects of the play from the outset. They orchestrate the play and are not

reliant on an adult setting it up for them. Accessibility is a major factor, and it is most importantly accessible to the child. The curious, independent learner evaluates how to disperse the light, how to alter the sharpness of a shadow, how to make images larger or smaller. Trial and error, hypothesising, amending, manoeuvring, and evaluating are all part of this truly integrated STEAM based learning approach. Ease of use is essential. They can select the light projection area and quickly adapt, modify, and review as they go. With this resource they position the light source at a chosen height and depth, they switch it on, they can integrate it with the materials available to them. It is simplistic yet offers so much potential and importantly it is the children who make the decisions using a plethora of social, cognitive, and cross-curricular skills.

A BLOCK WITHIN BLOCK PLAY

Imagine a wooden block, but this is no ordinary block as it emits light that can transform ordinary materials into the extraordinary, simply by the power of light. It looks like a large brick and can be balanced in, around and on the plethora of materials. What will they use to angle the light forward? Will they stand it on blocks, crates or on the floor? There are no trailing cables to get in the way. It resembles a piece of construction or a loose part, sitting amongst and alongside them, offering so much potential. Fantastical, imaginative scenarios, vital connections being made, experiments and discoveries await the participant. Let us not forget the awe and wonder that is an essential ingredient in this eclectic mix as well.

STEAM BASED LEARNING

When light is part of the play it lends itself to a host of learning scenarios. Our aim is for the children to have a STEAM based approach with blended themes, skills, and opportunities. We want science, technology, engineering, art, and maths to merge seamlessly together, where the child is using the skills realistically, practically, meaningfully, and contextually. It is not about focusing in on a specific subject area. The process is perhaps more significant than the outcome. What they build will be rewarding but it is the discoveries, the connections they make, the many skills they utilise along the way is what really makes the impact.

Consider the language of science that will pervade as they experience first-hand the materials and their properties. Are they opaque, translucent, iridescent, patterned, luminous, solid, dense or do they meet some other description? The children will see how some colours really shine brightly like lanterns whilst others create a grey shadow or merge together. Why does that clear block make that effect, how does that pattern emerge? Consider how they can work with shapes, space, pattern, amounts, sequences, and measurements. What mathematical vocabulary will be explored? Is it heavy, light, hexagonal, vertical, matching, sequenced, longer, or equal? The potential for a rich and extensive, contextual, lexicon is huge. We hear so much about the word gap and we want children to be immersed in a language rich environment.

The children will be designing, building, manipulating, manoeuvring, connecting, and experimenting with all kinds of building materials and loose parts. They can be reimagined and transformed with the addition of light and shadow. Imagine castles, towers, structures, and robots created from crates, recycled materials, blocks, and everyday items. The children can wander around and select something as they ponder and wonder what this would look like if it was merged with light?

Technology is such an integral element of this learning approach, but rather than dominate it enables, enhances, and enriches. Imagine adding an extra layer of lighting within light such as torches, glowing cylinders, light up spheres and other illuminated resources. The children are learning about cause and effect, stimulus -response and utilising tools and equipment to shape their ideas.

We really want to encourage a sense of creativity; we want imaginations to fly. They can create their own narratives, their own special landscapes, robots, machines, sculptures, buildings, etc. and all are set in an ethereal backdrop of light and shadow. There can be so many materials used and explored such as dense fabrics, sheer, iridescent voiles, woven textures, etc. Imagine pebbles and boulders where the colours dance in the light. It could be household items such as pans and colanders or familiar blocks and crates. The engineering possibilities are huge. How can we utilise the contents of our construction areas with all their array or the loose parts collection? Can we make things move, pivot, balance or rotate? Can we join materials together using different connecting solutions?

Practical, experiential tasks, where the cross -curricular themes merge seamlessly together, where the children are engaged in meaningful, hands on, interdisciplinary and complimentary STEAM based skills is one of the many objectives.





THE GLOBAL CHILD

Our aspiration is that wherever this projector is used it will enable the child to make their own unique projects, decisions, considerations, and discoveries. We want it to be used in a way that is aligned to their specific interests and contexts. What is also apparent through observations is that children get a real sense of satisfaction. They marvel at the mesmerising effects. We talk of awe and wonder, but enchanted, magical ingredients do add to the activity, elevating and enriching it. I saw a child construct the Radiant Boulders into to a lofty, colour popping tower and then stand back and quietly admire her wondrous sculpture as it shone brightly. It took on a unique quality in the shadows. The child's self-esteem was raised, it was a gratifying experience, and it was so richly apparent how much joy she experienced. As a quiet observer the educational benefits were very apparent also. It was witnessed how the child had made choices, evaluated, edited, persevered, and embraced a host of skills.



ALIGNMENT WITH PEDAGOGY

The skills and experiences related to this topic are not exclusive to one approach. Settings can incorporate it into their learning strategies how they choose. Observations demonstrated how some children were able to weave the activities around their schematic behaviours and interests. They were stacking, lining things up, rolling and enclosing items.

One aspect of the Reggio Emilia philosophy often portrayed is where children are immersed in creative, imaginative, collaborative pursuits within light and shadows. Loris Malaguzzi recognised the power of giving children the opportunity to communicate in a rich variety of ways. The child may select to paint, construct, dance, sing, draw, sculpt or whatever form of expression meets their interests. The child is encouraged to use critical thinking skills, to evaluate and modify. These projects may take place over weeks. The child is not rushed or confined to prescriptive times. The environment is critical to this and is termed the “Third Educator.” The key elements of Loris Malaguzzi’s work focus on the confident, capable learner who pursues their own interests, their own line of enquiry, selecting their own vehicle of expression. There is not a prescribed task but an exploration of ideas and possibilities. Access to a rich and varied array of materials may be a source of inspiration and light may be a key factor in this play.

WHY CHOOSE THIS DESIGN?

We want you to be confident that this projector has been designed from the ground up with safety in mind. With its integrated rechargeable battery giving around 5 hours of continuous operation, it eliminates the trip hazard and high voltage hazard of traditional mains-powered overhead projectors. It can be charged from any USB power sources such as phone chargers, laptops and power banks.

Additionally, the efficient and long-life LED light source means the unit remains cool to the touch and has been tested to the latest EN62471 brightness and blue light emission standard to ensure it is safe for young eyes. The guidance as to what is safe is quite rightly very exacting and not all light devices will be suitable. The projector is made of sturdy wood and contains two clear panels to the front which prevent children from being able to get too close to the light in the back of the projector. The gap between the clear panels allows for slides to be slotted in which can then be projected onto the wall. The projector also has as an additional feature: a silicon outer jacket. This makes the design more robust to meet the needs of a busy learning environment. Due to all these measures, it can be used independently by children of age 3 years and up.

The projector really does offer a splendid plethora of possibilities, lending itself to so many exciting and engaging scenarios.



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LIGHT PANELS



Stimulating the Senses through the Pedagogy of Light

Light takes us into a magical, surprising and enveloping world. You could say, it produces a hypnotic visual pleasure and transports you into another reality.

Since the beginning of time, light has been a fundamental element in history, life and learning. The sun as the main source of light is revered from civilizations as ancient as the Maya or the Incas for instance. The discovery of fire in prehistory was the first source of light and from there, began its study and learning, leading to one of the most important inventions in history - the discovery of electric light by Thomas Edison.

Pedagogy of light

The Pedagogy of Light is based on different fields such as science, art, expression, creativity and divergent thinking. It is based on sensory experiences from both natural and artificial light, using different luminous material resources.

In this way we have at our disposal the opportunity to offer a meaningful method of learning through light installations and luminous materials.

Light transforms the ordinary into extraordinary, the usual activities into magical experiences.

The Pedagogy of Light emerged in Italy in the schools of Reggio Emilia and today this pedagogy is widespread internationally and is used as a resource in multisensory rooms and in children's education classrooms.

Light panels, drawers or light tables are one of the most used resources in the Pedagogy of Light and are increasingly present in the classrooms of Early Childhood Education both in the first cycle (0-3) and in the second cycle (3-6) of the stage.

Multisensory rooms and luminous materials

Multisensory rooms aim to promote a state of well-being and relaxation through the senses, in specially designed spaces.

The purpose of sensory stimulation is to provide information to the nervous system gradually adapted to the sensory profile of the child.

The multisensory installations are designed with the purpose of encouraging children to intervene with the materials, immersing themselves in the installation and even having the ability to modify it, within a comfortable zone. Through these experiences we can offer a safe space for children to work on aspects of their personal, social and emotional development such as frustration, patience, fostering wonder, positivism and relaxation for instance.

Multisensory facilities or rooms are also designed to encourage trial-error, cognitive learning, creative development, critical thinking, making choice and artistic and emotional expression. Encouraging concentration and problem solving are also important factors, as well as creating in the child the ability to question results.

These rooms consider aspects such as the profiles of children, the objectives we want to achieve and the senses that we will work on from the proposals. Supporting control of lighting, colours, aromas, sound, touch and materials.

“Viso-spatial perception develops in conjunction with manipulation and body scheme (Anna Jean Ayres, 2018)”.

Luminous materials are those that emit light. Some of them do this through interaction with the child, such as changing colour when moving them. These materials, through the light they emit, help us focus attention by ousting external distractions. In addition to their light component, these materials can be equipped with characteristics to support more than just the visual sense, they can also support the tactile, vestibular, auditory and proprioceptive senses.

Using luminous materials in specially designed rooms offers us the possibility to work at different levels with children depending on their profiles and needs. We can create free play facilities (with predefined standards), pedagogically through the Pedagogy of Light and therapeutically, relying on the Snoezelen approach. Creating, for example, relaxation rooms, that help with supporting the proprioceptive system, fostering the senses of smell, vision and hearing. These are rooms with an atmosphere of calmness that promote emotional well-being.



Benefits of using light panels

Without any doubt and with studies supported by neuroscience, the pedagogical value for the use of light as a learning resource facilitates the amazement and source of developmental creative thinking.

The activities we develop with the light panels, together with the materials used, make observation, experimentation and research, the basis of this learning undoubtedly linked to the game as the basis of all meaningful learning (with this, we mean that it settles and endures over time).

The use of light panels as a methodological, pedagogical, creative, artistic, and playful component resource, develops infinite capacities and is a versatile material with which all areas of children's education can be covered. Sensory, logical-mathematical, graphomotor, literacy, science projects, scientific observation and experimentation, art, stories and countless other possibilities.

Light is a great pedagogical, sensory and stimulative tool. The pedagogical benefits of using the luminous panels provide children with the development of different capacities that will be useful for sensory development and skill reinforcement.

Among the benefits of using light panels, we can highlight the following:

1. ASTONISHMENT- EMOTION- MOTIVATION

“Amazement is the engine of learning (L’Ecuyer Catherine, 2012)”

“The brain only learns if there is emotion (Mora Francisco, 2013)”

As these two authors tell us, the wonder and emotion that produces the transformation of materials on the panel, makes the use of light awaken the motivation towards learning.

2. SENSORY STIMULATION

“A rich stimulating environment is one that combines a wide variety of novel stimuli with a calm, relaxed and emotionally stable environment, where the apprentice has enough time to assimilate every new stimulus that reaches the brain (Ibarrola Begoña, 2013).”

Through the activities we develop with light panels we stimulate our senses gradually.

3. OBSERVATION- CURIOSITY

“Light panels add interest to any environment, creating a place for observation or to explore patterns, shapes, opacity and colour blends. (Thornton Linda and Brunton Pat, 2013).”

Providing a rich environment full of possibilities develops your natural curiosity and curiosity is an innate mechanism that leads to exploring the unknown.

4. EXPERIMENTATION- EXPLORATION- RESEARCH

The way the teacher places the materials through activities, mini-worlds, sensory trays and loose parts, invites children to explore, experiment and research.

5. PROBLEM SOLVING

Freedom of action, exploration and research encourages children to face different situations and make decisions that in turn will help them to strengthen their self-esteem.

6. SPEAKING

These activities provide opportunities for communication and language development, as well as promoting the expression of emotions, thoughts and ideas and acquiring new vocabulary about object properties or thematic projects. Children and adults may have interesting conversations that in turn will serve as an analysis of what we have learned.

7. FULL-MANUAL COORDINATION- FINE MOTORITY

Through the manipulative activities carried out on the light panel children develop these two capacities.

8. AESTHETIC AWARENESS

Materials used to explore light promote aesthetic awareness and appreciation of beauty.

9. CONCENTRATION- ATTENTION

Light, through the motivation it causes, attracts attention for extended periods of time, which we see as concentration.

“The light table has the quality of transforming the materials, causing the child and inviting him to interact with them (Ainhoa González, 2019)”

“The magic of light is a great motivating resource to achieve learning (Elena Martín García, 2019)”



About the authors:
Ainhoa González

“I am moved by the illusion of being able to provide a child with meaningful learning based on the wonder and benefits that the use of light brings to designed environments.”

Ainhoa has provided multitudes of training workshops and speeches both to students and teachers, revolving around the light panel as a pedagogical and creative resource for children. She has a prominent background in writing academic papers and continues to be a pioneer in shaping light pedagogy and the design of multisensory spaces through light tools.



About the authors:
Ma Elena Martín García

Teacher of vocation, heart and eternal learning.

“My methodology is based on using games as the basis of meaningful learning. I believe in the pedagogy of the senses where the child learns through observation, manipulation and experimentation. I’m an advocate of education that respects the different rhythms and mature levels of learning”.

Elena is a tutor and coordinator of the Cycle of Child Education at the CEIP Piedra de Arte de Villamayor de la Armuña (Salamanca). She leads by example, with her dedication in providing training and sharing her knowledge on early childhood education.





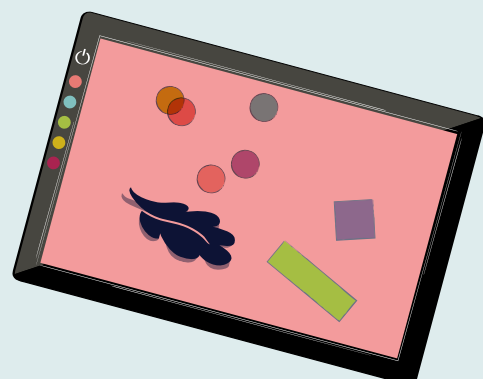
Accompanying sight and enhancing connection with the environment: *light panels*

Sight is one of the most important senses in terms of the child's connection to the environment. Following the "Development Pyramid" of Williams & Shelenberg (1994), we know that, to ensure the balanced development of a child, it is essential in the first instance, to generate an adequate perception and processing of basic sensations; tactile, proprioceptive and vestibular. With the senses, it is the exteroceptive senses that develop and begin to unfold, in such a way that they involve an adequate balance and connection of the child with his own body and with the world around him. Among the senses that connect the child with the outside world, one of the most important aspects is the sense of sight. Sight offers contact with others - It is therefore essential to work and strengthen the proper development of sight.

Special attention is required from early childhood, especially when it comes to cases for special educational needs. We know many vision disturbances that are present in children who have learning and development difficulties. We can think generally of any child, and how important it is for their emotional well-being to be able to enjoy an environment that offers them adequate visual sensations. Children with sensory disturbances, of different types such like visual hypersensitivity, children with visual hyposensitivity, visual filtering issues, visual convergence issues, among others, may find their quality of life and their connection to the world around them more difficult.

In special needs within early education, sight must be adequately considered and addressed to ensure balanced development of each child. It is recommended, to have a "sensory profile" of each child, and specifically, to know their preferences and at the same time their difficulties in terms of visual information. In this way, based on the assessment of the micro visual capabilities (reaction, fixation and follow-up), in different situational conditions (ambient light, dim light and darkness), we will know the reactions of individual children and their responses of pleasure and/or displeasure depending on the lighting environment in which they are located.

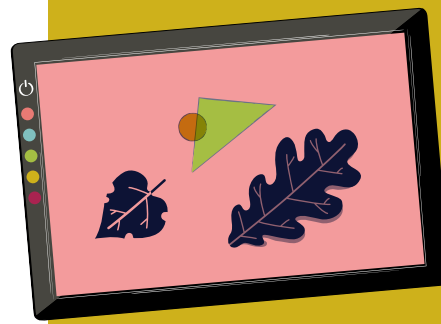
Special education professionals need to know the importance of visibility in children and particularly try to understand how each child will have abilities and visual preferences that will cause greater well-being or, on the contrary, greater difficulty in their day-to-day activities hindering their learning skills, as well as their relationships with the environment. In a classroom where proper intervention is concerned, it is important to



ensure an environment that offers safety and well-being to children. Lighting is an important part of the environments that will generate safety and trust in children. In this sense, having the right lighting, warm colours and pacifies is crucial. In addition, being able to have material elements specially designed to generate well-being in the environment but above all, to enhance the development of visual capabilities that may be affected, will be a factor that will offer greater quality in care. Within the classroom and multisensory stimulation rooms, or even Snoezelen spaces, it is an opportunity to work, with specially designed and guaranteed elements. Sight can be coupled up by combining it with other sensors (hearing, vestibular, proprioceptive, tactile etc.). For this to work appropriately or for the visual sensory system to function, we have different materials specially thought out to provide satisfactory results.

One of the elements that we can highlight to work both in a classroom and in a Snoezelen Room is the light panel. The light panel offers us multiple possibilities, from pleasure and emotional well-being to stimulating sight and vision. The light panel can have different modalities and different objectives in terms of its use. The important point is never to lose sight of the importance of accompanying the child, communicating with him/her and through the panel of light, offering them sensory and cognitive experiences that would otherwise be difficult to experience.

Therefore, the uses and objectives offered by light panels is different, they will depend on the sensory profile of the child and whether it exists or not, but also the sensory alterations that lead to behavioral alterations, etc.



Examples of the multiple possibilities offered by the light panel might include:

- 1 Empowerment through the illumination of the panel that is generated from ambient sounds or vocal emissions of the child, stimulating him in verbal communication, helping him to regulate the tone of his voice if necessary.
- 2 Being able to help regulate impulsivity in the child. In this way, with other children or with a professional you can generate different types of games, you can wait to take turns, perform imitations etc. Thus connection, empathy and communication with others is enhanced.
- 3 Being able to work from memory, attention and other basic cognitive abilities. From listening to personal stories, listening to music and seeing the lighting of the panel according to the auditory stimuli, children can create their own stories.
- 4 Working through the light panel for speech therapy purposes, such as dysarthria, alterations in the issuance of different types of verbal languages. Using the light panel can be a playful way by which the child evolves and improves the quality of his verbal communication.

Overall, there are many applications and benefits of the light panel in special education, we have shown only a few small examples, but there are many more. The important point is to understand that visual sense, accompanied by other sensory systems, is fundamental for the proper development of a child and to his connection with the environment. And it is important to know that we have varied technological means to support this. The light panel as discussed, facilitates, and supports in the development of sensations. It is also key to perform appropriate intervention, considering the particularity of the child, and offering that emotional well-being and support.



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Maria José is an ISNA (International Snoezelen Association) accredited trainer in Multisensory Stimulation and Snoezelen; offering advice and support to professionals and institutions that serve people with dependency and/or vulnerability (such as dementias and Alzheimer's, mental illness, early care and functional diversity). Director – HUMANITUDE Spain Trainer.



Light Panel Activity Ideas

AGE: 3- 4 YEARS

Key Focus

Exploring colour through painting.

What we want to Achieve

Experimenting with colour changes due to the effects of light.

Preparation

You will need the TTS Light Panel Messy Play Protective Cover (available in A2 or A3 size), paint and paintbrushes.

Activity

Place a plain white piece of paper next to the light panel. Encourage children to say the colour they are picking and paint this onto the white paper, next paint the same colour onto the light panel. Repeat with the rest of the colours and experiment to see how the light affects the colours and whether they look different on the light panel than on the white paper.

Extension Activity

Encourage children to make predictions about colour changes. Get children to think about what colour they will create when they mix two together.

Key Focus

Explore how light travels through natural materials.

What we want to Achieve

Explore transparency of different materials and make predictions using language such as 'see-through/not see-through' and introducing new vocabulary such as 'transparent'.

Preparation

You will need the TTS Light Panel Messy Play Protective Cover (available in A2 or A3 size).

Provide children with a range of natural materials from different coloured leaves, dry leaves, fresh green leaves, pine cones, twigs, moss, hay etc.

Activity

Encourage children to place the different natural materials onto the light panel to see if the light shines through them. Model language and new vocabulary such as 'transparent' and 'see through'. Ask children open-ended questions such as 'What do you think will happen if we put this on the light panel?' etc. Encourage children to make predictions about how much light will shine through the different resources and which will be more transparent than others.

Extension Activity

You can combine the previous 'Exploring colour through painting' activity with this activity by painting the natural materials whilst on the light panel and exploring how the colours affect transparency.



Key Focus

Exploration

What we want to Achieve

Sensory Development and fine motor skill development.

Preparation

Place the light box on a flat table and switch on. Set to desired brightness level by touching the on switch.

Activity

Read 'The Rainbow Fish' by Marcus Pfister as a stimulus with the children. Arrange small clear cups in the shape of a large fish on the Light Panel. In separate beakers, make up solutions of coloured liquid using 'Colour Fizzer Tablets' or diluted food colouring. Using 3ml dropping pipettes, encourage the children to add different coloured water to the cups to create their colourful fish. If using the 'Colour Fizzer Tablets' the children can be challenged to make as many different colours and shades as possible. (This is more effective with 'Colour Fizzer Tablets' than diluted food colouring.)

Extension Activity

Make thin sheets of coloured jelly or sugar glass. These can then be made into random, smaller pieces which the children can use to place on the light panel to make their own design or to create a picture. Children can explore and describe what happens when the light is off and on and what happens when colours are overlaid.

Key Focus

Writing.

What we want to Achieve

To form letters correctly and to enjoy mark making/writing.

Preparation

Place the light box on a flat table and switch on. Set to desired brightness level by touching the on switch. Place sheets of acetate and/or tracing paper by the box. Prepare a clear tray with coloured sand.

Activity

Even children who do not usually enjoy writing will want to have a go using coloured pens and sheets of acetate on a light box and see their letters and words magically light up! Children might write their name, then place transparent counters over the top, following each letter – brilliant for practising fine motor skills! Alternatively place a clear tray with coloured sand on the light box. Children can use their fingers to practise forming letters correctly, and they will appear glowing underneath the sand.

Extension Activity

Experiment by using water colour paints on tracing paper.





SPECIAL EDUCATIONAL NEEDS



I see; I reach; I touch; I learn!

Curiosity and engagement are key elements for active learning to take place. Learning needs to involve activity in order for the child to be a full participant in the process. When we are working with very young children, or equally older children with additional needs, the temptation is to control the nature and flow of the learning experience. This produces a 'done to' experience rather than a 'done with' (slightly better) or the ultimate, the 'done by' in which the child initiates, explores and controls any actions.

Instilling such learning opportunities from the earliest ages creates independent learners who will be able to find opportunities everywhere in their geographically-controlled world to intrigue and exploit. The power of such self-directed learning is that skills and understanding move more quickly from working memory to long term memory and retrieval and generalisation are enhanced.

At every age and stage, but essentially in the early years, children learn more

effectively if multiple routes to the brain are engaged, that is if sensory inputs come from one source and combine to provide information to the learning brain. Vision is, apart from children with severe visual impairments, considered to be the coordinating sense. For example, if a child hears an unusual sound, they will instantly turn their head to locate the source of the sound, thus using their vision to make sense of the auditory input. If an item is put into their hands, they will immediately look to see what it is.

So it follows that multisensory work with vision as a key element is needed for every child. However, for those with additional needs these activities are a necessity as they may need multiple repetitions and variations in order to secure the neural pathways which will form a foundation for future learning. From being able to orient to a light source the child will move on to eye hand coordination when they reach and grasp. All this provides a basis for selection, orientation and manipulation.

When children are very young, providing resources and activities with enticing

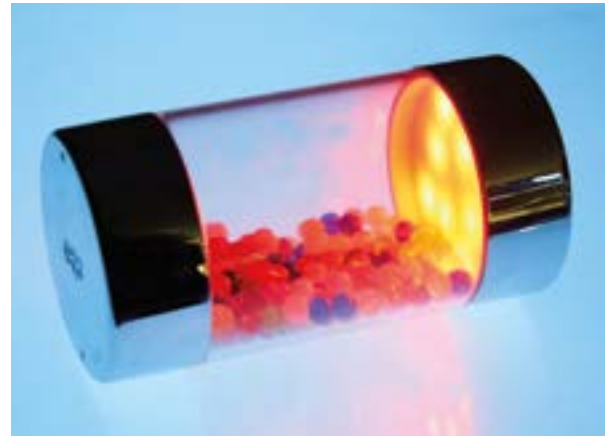
visuals is a wonderful way to support self-initiated exploration. It is vitally important to push for this independent motivation. Children with additional needs are frequently 'done to', for example, objects may be placed within their reach or in their hand yet the object that interests them is out of reach. It follows that we need to offer visual attraction in tasks that enable the child to locate and interact using free choice.

It is possible to start very simply, for example, just with a torch. Firstly, create a darkened space. This can be as easy as dimming the lights or creating a dark den with a blanket over a table. By shining the torch on objects in a darkened space visual focus is created on the object and visual clutter created by a busy environment is avoided. If the object is enticing (and for babies and little children nearly everything is!) they will attend to it and then reach. If out of reach, they will move until they can touch and feel it. By tactile exploration and manipulation, including mouthing, the brain receives a huge amount of sensory input to add to that gained through vision.



At this stage it is interesting to note what attracts the baby/child and what is of lesser interest. We can begin to observe preferences at this early stage, and by simply noting these we gather information to help us play effectively with children. We may even begin to note patterns of response which might identify strengths and weaknesses at this stage of the child's development, for example the distance at which they notice an object or the colours that particularly attract them.

There are many well-designed resources that can be purchased to support this area of learning. As with all purchased resources, there are several key elements to check in order that the purchase does what you need it to do. Taking as an example the magnificent selection offered by the early years glow resources range from TTS (<https://www.tts-group.co.uk/early-years/ict/glow-resources/>), we can see that a few simple and effective principles underpin each offering:

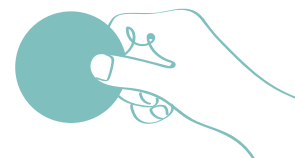


- 1 As the title suggests they emanate coloured light, which provides a visual attraction to the child.
- 2 They stand out from many primary targeted resources because they have moved away from the traditional primary colours to visually gentler choices, thus in a busy Nursery, playgroup or classroom they 'look' different.
- 3 Many can be combined to create more interesting combinations, for example the set, Light up Glow Spheres, Cylinders and Bricks, offers so many ways to interact and manipulate the components. The cylinders are perfect for early grasp holds and yet once greater motor control is achieved, they can be manipulated and slotted into the bricks to create new shapes.
- 4 The Illuminated Glow Roller Shakers add yet another sensory input when being played with; sound. So we have a wonderful combination of sight, sound and movement to feed information to the learning brain. As movement is a key trigger for visual attention, this resource works perfectly for many who are experiencing barriers to smooth visual development.
- 5 Most impressive is a resource that looks very simple; Glow, Stack & Build Texture Tower and Wooden Pole. There are many stacking resources available on the market but this one has several unique features. Firstly, as already mentioned, the colour choice selection. Secondly, their size; unlike many other such resources they are a good size so encourage two handed manipulation by smaller hands. Moreover, each ring also has its own texture...this simple addition not only makes it an inclusive resource for a visually impaired child but adds another route to the brain by adding tactile information.

A well-developed resource offers our children so much more in terms of individual, pairs and group work. This is valuable for all children in the very early stages of learning but more so for children with additional needs, for whom it is vital. Their development, and future success is firmly rooted in the provision of effective and empowering activities that support their individual development pathway. It is therefore essential that we carefully curate sensory resources that are flexible, and inclusively designed so that there is clear initial visual stimulus to promote and support active engagement. If the resources also offer longevity they can be used as children get older in slightly different ways, for example pattern matching, sequencing and role play, then they are indeed a treasure. Treasures are not often found and should be shared so that as many children as possible benefit from their magic!



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Carol is an education advisor for ICT and Inclusion. Named as one of the top ten educators for her work in inclusion, #EdTech2018, she was awarded an Ed Futurist award in 2019. Carol is currently a member of the DfE Assistive Technology Expert Group; a member of the BETT Advisory Team; a BETT Awards Judge and has been a panel member and is a contributor to sessions at the House of Lords for the APPGAT committee.



Gradual Inclusion of Children with ASD through the Development of Social and Communication Skills.

This article addresses the current topic of inclusive education for children with autism, purpose of which is to ensure equal opportunities in education and positive socialisation of children with ASD. The author explores means of gradually including a child with ASD in pre-school environment using a case-study from their independent educational institution.

Once a little boy was brought to our kindergarten; he did not talk to anyone, did not respond to teacher's requests, and did not seem to be interested in the world around him. Sitting at the desk with other children was troublesome and out of the question in the classroom. Nowadays, we would easily recognise the signs of autism, but then, we were at a total loss. All the methods and techniques known to us at the time did not work and we were faced with a lot of questions.

What to do? How to understand this child? What and how to teach him? Where to begin?

We were faced with the fact that we were completely incompetent in working with this category of children with special needs

and the maximum we could provide for him was good supervision and care, but this was a direct breach of the Convention of the Rights of the Children, the policy of Russian Law.

And so, we began our search, around the possibilities of our educational establishments, analysing the materials and pool of teachers that were selected and specially trained. Special consultancy was provided by the specialists of the correctional and developmental centre for children with autism "Aurora", a well-known establishment; teachers attended training seminars and conferences, studied many articles, publications, and books.

It is particularly important for children with autism to have a set routine and as

little stress as possible in daily activities, therefore inclusion of a child with ASD should be gradually phased in. Firstly, it is necessary to meet the child in advance, show them around the kindergarten and all relevant areas when no other children are present. The teachers then compile social stories and visual clues which help the child to navigate around the classroom and their new daily routine. Working with a child is carried out using special ABA principles, an approach that allows to achieve success consistently and predictably. During teaching, the PECS card approach is used alongside the 5-point method to help regulate a child's emotions.

To keep track of a child's skill development, teachers fill in special charts. Depending on how well the skill is formed, the specialist either decreases or increases the degree of help, hints, and encouragement. With the help of these charts, we can track the frequency of the child's undesirable behaviour to understand whether our approach is effective, if not, then the methods and techniques used are adjusted.

Unfamiliar faces, voices, spaces and sounds pose a real problem to children with ASD. In order to make it easier to remember the names of the surrounding adults and children, we use albums with photographs and their respective names; the child examines them at home and memorizes the names of teachers and peers well ahead of joining the group to enhance familiarity and understanding. For non-verbal communication, we use an online App called "Autism: Communication", based on all the same, familiar PECS communication cards.

Additionally, the cognitive development of a child with ASD develops through the perception and comprehension of specific objective activity. Therefore, for a child with ASD, the sensory component of the world is very important. In addition to using dry pools, labyrinths, balancing tracks, rollers and spiked balls in work, we have developed tactile panels, books, cards and manuals that allow the child to get new sensory sensations: visual, auditory and tactile.

To introduce gradual inclusion and interaction with peers, we begin by establishing communication with one peer only, subsequently, this classmate becomes a mentor and in the end, we find that it is the peers that end up teaching the child the basics such as getting ready, dressing up and playing. In return, they learn patience and tolerance.

Some children with ASD may have limited communication skills, show little interest in their peers, and when they do, they could often do so in an unsuitable to a classroom manner. There was a time when, on a walk, an child with ASD kept running up to one of the pupils, taking off his hat and running away which caused anger and upset. It was necessary to understand what the child wanted to communicate with such behaviour. After explaining to other children that he wanted to play catch, we taught him to replace this action with the request "Lets run" or "Catch"; seeing the positive reaction of his peers he took to this behaviour and started using words rather than just actions.

Corrective work with a child with ASD implies joint work of a speech therapist, psychologist, educators, as well as active interaction with parents. In conjunction with our kindergarten, we have established an association called "We are near, we are together". The goal of this association is to support the family of a child with ASD, assist in solving psychological, medical, pedagogical, social and legal problems of the family in terms of education as well as creating the right conditions for the socialisation of their child.

Unfortunately, there are also children who, for various reasons, may not be able to attend day-time educational institutions. We therefore established a consultation centre called 'Lekoteka' to support with improved socialisation for children and provide pedagogical assistance to parents. In addition to standard classes, we provide an opportunity for parents to take the necessary resources or toys home for a certain time to help with independent development of cognitive, emotional, sensory and motor development of children.

Initially, our task was to find, and learn to apply, effective tools and methods in working with children with autism but, thereafter, we also recognised how important it is to inspire teachers and parents so that they understand the fulfilment that can be obtained as a result of working with children with ASD. The initial and most difficult thing is to understand a child with ASD and to overcome the difficulties, once a child with special needs begins to do what they could not do before – this is a true joy for us.



We now know enough about autism to recognise that, whilst a child may not be able to learn social skills naturally, they can be supported in intentionally learning these skills, and that is a great achievement!



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Tatiana Manturova is Head of MBDOU kindergarten (215) specialising in SEN in Yekaterinburg. With over 10 years of experience, she is an organizer and curator of the City Project "Little Pre-school Children"; chairman of the City Festival-Competition "Fun"; Head of the Regional Innovation Platform of the Sverdlovsk Region "Pre-school" – a start-up platform for all teachers and participants of inclusion and a winner of the competition "The best inclusive kindergarten of the Sverdlovsk region", "Innovations in education" and "Pedagogical initiative".



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Stimulating the Senses of Children with Special Educational Needs

Teaching and engaging in therapeutic work with children with special needs is quite a challenge for teachers, specialists, and parents alike. Regardless of the disability and its level, each child requires a relevant application of the broadly understood principle of individualisation and specific support. It is therefore crucial that those in the immediate support circle of the child have adequate knowledge, understanding and are equipped with the right tools for providing educational opportunities and supporting children's needs.

Children with special needs represent different opportunities for learning and acquiring skills. Their scope of functioning is conditioned by the level of psychomotor development, somatic development, sensory organs and movement. Prior to working with a child, we must carefully learn not only about their abilities and needs, but also the sensory preferences that determine the style of subsequent learning. Regardless of the leading perceptual channel, any kind of action should engage all the senses. The senses determine how children perceive the world, what information they remember and what image of reality will eventually develop in their mind. Visual, auditory, tactile, scent and taste sensations play an important role, stimulating the leading senses and improving the weaker ones. The use of multi-smart help is of great importance in the

optimal development of the child, so it is worth equipping your setting with practical solutions.

Among the proposals that deserve special attention is a group of products that emit a variety of coloured light. Blocks, spheres, cubes, cylinders and discs stimulate and improve the sense of sight and encourage creative experiments during play. Just shaking the object is enough to discover the cause and effect and the reaction. These can be used in various educational and therapeutic situations. They are also ideal for motor games or dance classes. Touch balls and discs have textures, which further engage the sense of touch during the activity. A great way to combine light play with developing motor skills and co-ordination of sight and movement is with the Light Up Twist & Turn Cog Board or the Switch & Press Fine Motor Board. Both resources are safe and easy to use. For the Cog Board, the child rotates the cogs which causes a gentle colour change. To activate the light in the Fine Motor Board: press, switch, rotate, pull or move the switch. The device can be mounted on a wall or used on a table or floor.

A light panel is a universal resource that allows for creativity and experimentation with transparent objects while stimulating the sense of sight.

Light panels can be successfully used to observe colour blending or simply to look at objects deeper and more intensely. They give out bright, clear lighting without heating up the surface. Great for supporting the development of fine motor skills and precise movements during hand therapy. Some models have metal clamps for paper fastening to allow you to trace patterns or outlines of letters and numbers. They also have the function of recording the voice or changing the projected colour. Different-sized panels combined with transparent accessories are an indispensable tool for analyzing the colours and shapes of objects. Thanks to a special protective cover tailored to the size of the panel, the device can also be used to highlight

activities related to creative activity and practical exercises. Overflowing various products and pouring colored liquids is not only great fun, but also an excellent training method of visual and motor coordination and concentration.

The Mini Illuminated Mark Making Boards are another attractive aid for children who require visual stimulation combined with manual exercises. Activities with these boards allow you to figure out and improve the smoothness of hand movements necessary for learning how to write. The advantage of the resource is the ability to highlight the writing. You can also change the colour of the light emitted from the panel. The resource is complemented by work cards with proposals for graphomotor exercises. After you drag any tab into the panel and turn on the backlight, you can start drawing patterns or writing letters. Activity cards show arrows that indicate the beginning and direction of writing, allowing your child to work independently.

A practical and at the same time universal element for creating sensory space could be a mirror corner with two acrylic glass safety mirrors that can provide a visual experience. When equipped with additional accessories, it could provide a place for your child to engage in independent activity.

Comfort therapy can be enriched further with a corner mattress, additional roller and complemented further by cotton. White light has a calming effect, allowing you to emphasise the colour and shape of the objects inside, as well as direct the child's attention to other therapeutic aids. Such a solution can be used to create an ideal relaxation space or a sensory experience room.

Incredible visual impressions are provided by mirrors with lighting or mirror pebbles. During therapy, they introduce children to the world of magic, mystery, and optical phenomena. The infinity mirror provides the illusion of a tunnel with an infinite number of glowing



beads. In contrast, a set of mirrors with colourful lighting allows you to observe your reflection while presenting different emotions. During speech therapy exercises this allows the therapist and the child to track the arrangement of speech organs. The versatility of the help makes it possible to prepare classes not only of a therapeutic nature, but also educational. Mirrors in combination with numerals and glossy solids with streamlined shapes and a smooth surface can also be used for stacking and sorting, while developing dexterity, visual coordination and mathematical skills.

In therapy, children have always benefitted from dry pool activities. These are not only great fun, but also aimed at gradually eliminating tactile hypersensitivity, difficulty assessing distance and problems with coordination and the self-awareness of your own body.

An inflatable LED pool filled with transparent plastic balls can offer a calming massage, as well as provide a wonderful experience for the child whilst stimulating the receptors.

Physical activity has a huge impact on the development of children and the formation of their senses. All children, regardless of developmental opportunities, require movement, but it is necessary to find the form of activity that will give them the most joy, while at the same time allowing them to build positive relationships with their peers and develop emotionally. The activity that allows the development of motor coordination, agility, perception, and

balance are obstacle tracks varied with sensory elements. This can take form of a foam obstacle course that consists of elements that form structures of different shapes and sizes. For younger children or children with movement restrictions who require less intense exercise, you can encourage physical activity with the help of a simple sensory mat. A soft play mat with various textures for youngsters to explore will allow stimulation of the sense of sight and touch, as well as opportunity to train speed, dexterity and precision of the actions performed.

This publication does not exhaust the issue of sensory support and stimulation. It merely indicates examples of possibilities when using selected sensory resources and activities and is a short introduction presenting a small part of the rich assortment, the versatility and ease of adaptability to the needs of the children that can inspire parents, teachers, and professionals.



About the author:
Kinga Hałajda

A certified SEN educator with over 16 years of experience in working with students with special needs. Kinga co-organizes inclusive education in schools and is also qualified to work in kindergartens. For several years, she has been a consultant in special educational needs and elementary education for Nowa Szkola.



The colours of music

and how to help children with Special Educational Needs (SEN) see what is invisible.

Every year, the number of children attending pre-schools with special educational needs continues to grow. Over the years, special methodologies have been developed for addressing SEN by various psychologists, speech therapists and defectologists; however, when it comes to including pupils with SEN and/or disabilities in primary music, there are no sound methodologies readily available, despite the fact that musical activity has enormous impact on the development of children, particularly those with special educational needs. This article explores issues associated with sensory development in children with SEN and primary music through the eyes of a practitioner working with SEN children using Friedrich Froebel's methodologies in the process of perceiving music and playing musical instruments, singing and playing. The article draws conclusions about the effectiveness of the application of the Friedrich Froebel methodology in working with children with SEN.

“Music is a powerful source of thought. Full-fledged musical education is impossible without musical education.” V. A. Sukhomlinsky

As a music director, I was very lucky to have had the opportunity to work with children with special education needs. You may ask: “Why lucky?” After all, it is much easier to work with children without such needs, as standardised methodologies have already been developed and they easily master the curriculum in accordance with their age prerequisites. However, my task as an educator is to make the world of music accessible to everyone. I believe that music can become an effective means of sensorimotor development for children with disabilities.

Music is the movement of sounds of different pitches, dynamics and duration. These sounds are further categorised in the musical odds (major and minor). In addition, all sounds have a certain emotional colouring, expressive capabilities and different properties. Such distinction forms the very basis of the simplest sensory musical abilities.

The difficulty when it comes to special needs is that children's

elements of hearing are impaired - pitch, rhythm and dynamics; alongside other processes such as attention, memory, imagination, thinking and fine motor skills, making it difficult to appreciate these distinctions.

As a result of working with such children, I strongly believe that it is necessary to create and maintain an interest in music by means of various musical activities. To do so, it is necessary that children can listen, see and act simultaneously. This is the only way they can “see” and feel the music at the same time.

I have tried various visual and didactic aids when working with children with special educational needs, but in my opinion, the didactic approach by Friedrich Froebel is the most adaptive and relevant one as it contains the foundations to what music really is, in its full shape and size, as well as colour.

The first Froebel gift, the soft coloured balls are universal and can be used in all kinds of musical activities.



MUSIC PERCEPTION.

Following the initial acquaintance with the music, together with the children we discuss the mood and the characteristics of the listened piece. Here, we also use colour perception of the music and this is not a novel approach.

Many scientists and composers investigated the relationship between music and colour (Pythagoras, Lomonosov, Newton, Scriabin, Wagner etc.) All these studies prompted me to the fact that each Froebel ball can be attributed to the characteristics and the mood of the music. For example, red being a solemn, cheerful tune; green resembling calmness; blue – to represent a degree of sadness. When listening to music, children simply pick up a ball of the colour that matches the sound of the music and this greatly facilitates communication with children with special needs, since many of them have difficulty speaking and therefore discussing the music they hear.

When using the triangle, you can even visually simulate a piece of music, for example, cheerful-sad-cheerful, and the children respectively hang the balls in the sequence: red-blue-red; this allows them to visually see how many parts the music consists of.

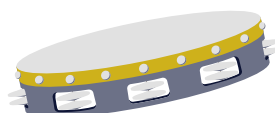
SINGING ACTIVITY.

Here the associations come to rescue: 7 colours - seven different keys. A-red, B-orange, C-yellow, D-green, E-blue, F-blue, G-violet. When singing, we teach children that a key can sound differently, at different octaves. Therefore, I suspend sounds at different heights (Fig. 1).

It is very important to teach children with special educational needs to sing along. here the loop of the ball comes handy as we hold the ball in one hand, and with the other hand we grab the loop at the base of the ball, slide our fingers to the end of the loop, and at this time we pull the note. Such a concept is perfectly interpreted by children who find it difficult to understand just the words – we drag the sound as everything happens visually and children themselves can manipulate the ball

RHYTHMIC ACTIVITY.

Children are very fond of manipulating objects during musical and rhythmic activities. With the ball, we learn, in a playful way the concept of orientation in space, distinguishing between the left and right and use them as marks during rearrangements, placing them in the right order on the floor.



(Fig. 1).



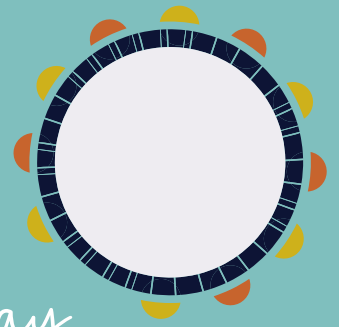
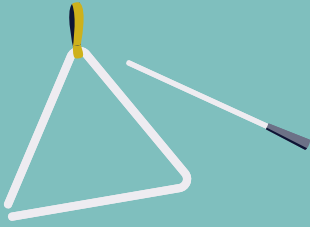
(Fig. 2).

USING WIND INSTRUMENTS

The colour approach to playing musical instruments with scales, such as a metallophone or a xylophone has existed for a very long time. These are purposely painted in different colours.

Not so long ago I also started working with a set of diatonic bells, also painted in the colours of the rainbow. But this is not enough. The musical sound has not only the pitch, but also the duration of the sound. When learning different pieces of music, I make schemes for children in which a large circle is a long sound, we verbally denote "TA", a small one - "TI". Alternating these large and small circles sets the rhythm. Therefore, at first, we learn the rhythm, then the speech and then the tap. Children with learning difficulties can quickly master these simple rhythms.

We then pay attention to the fact that the circles are painted in different colours. And here we start to learn the music on metallophones and on the bells. The balls in Froebel's first gift are all the same size, and so I decided to utilise balls of two sizes for this work: a classic size and a larger one so that children could model, in accordance with the schemes, the subsequent melodies (Fig. 2).

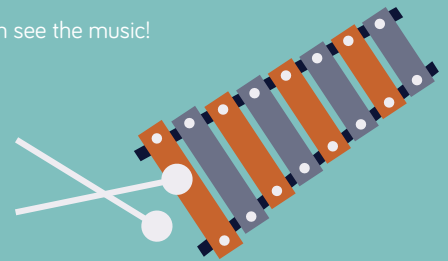


Children, music, and play

I use the first gift of Friedrich Froebel with children in games such as: “Find a pair”, “Pass the ball”, “Lay out the melody”, “Lay out the rhythm”. In these games, children not only learn to use movement to interact with each other, but also learn the colours too.

Utilising the gifts of Friedrich Froebel when teaching music to children with special educational needs has far-reaching benefits and excellent results. As children’s auditory attention improves, children more readily distinguish between high and low frequencies, the rhythm that children reproduce with claps becomes more accurate and finally children with poorly developed speech are able to engage vocally with pleasure.

Friedrich Froebel’s gift made the impossible possible: children can see the music!



About the authors:
Svetlana Kirilina

Svetlana Kirilina has been working as a music director at the Municipal Pre-school Kindergarten #13 “Dolphinchik” in the city of Bor, Nizhny Novgorod Region since 2015. Svetlana has a degree in pedagogy and in 2003 she graduated from the Murmansk State Pedagogical University. Today, Svetlana is Head of the Methodological Association of musical leaders of the city of Bor, she actively participates in innovative activities in the areas of STEAM (project of the Russian Academy of Education “Integration”) and “Early childhood”.



Valeria Lukanina-Mikhaleva

Valeria Lukanina-Mikhaleva has over 20 years of pedagogical experience, is a Master of Pedagogy, President of the Association of Pre-school Education Teachers, chairman of “Pre-schoolers of Russia” union, author, and lecturer of advanced training courses for pre-school and primary education teachers at Moscow State Pedagogical University.





Relax
Refresh
Recharge







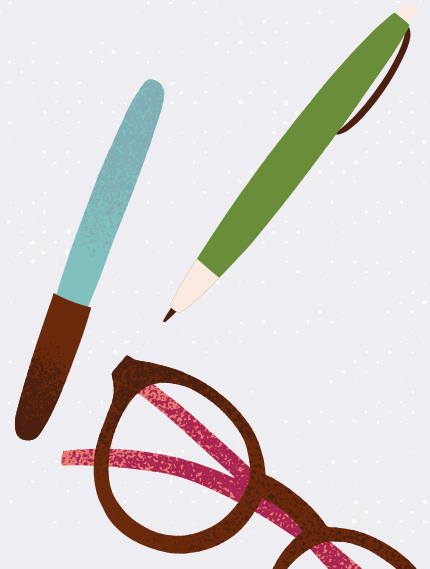
Make Space for Joy



About the authors:
Julie Belair-Bak MPED

Julie has worked in the very best sector of education, early years, for the past 21 years. Her company is ONP-International which started in 2018 with a mission to support educators with training and resources. Julie recently completed her MPED in early learning and considers herself humbled by the work so many educators are doing.

In the past year, we have all been presented with many challenges: COVID-19, isolation from friends and family, and changes in our pedagogy. There has been such a focus on coping in these unprecedented times. As we become more comfortable with the “new normal,” we are presented with an opportunity to shift our perspective. How might we move from coping to proactively thinking about finding joy and moving forward with meaningful joyful practice? I would like you to consider moving away from focusing on current circumstances and embrace the present and rediscover the joys in our workplace and childcare centres.



Here are five suggestions that will support you as you bring joy back to your learning environment -

- 1 Reset your goals.** Simple goals that allow you to take your eyes off the current circumstances and focus on the present. Shift your focus to a few simple goals. Goals that you know you can accomplish, for example, reach out to 5 families a week, and commit to finding common ground and grow your centre's sense of community. Set a goal to encourage others in your learning environment, share successes with other educators, and be present for each other.
- 2 Do not forget to get healthy.** When this pandemic started, most of us were guilty of binge-watching tv and eating poorly. Go for a walk; a healthy body is better prepared to handle stresses as well as find happiness and joy in the present.
- 3 Celebrate small wins.** When things are hard and you are struggling to find your joy, it is essential to appreciate the small things. This could be something as small as a great lesson plan that rolled out exactly as you envisioned or having a family return to your center who were away and now shares with everyone how unique your centre is. A small win will look different for everyone depending on what you value. In these challenging times, look for the small wins and celebrate them. Remember to share your wins and look for wins for others; joy is found not only in your wins but also in others.
- 4 Relationships matter.** Get to know families and educators in your centre that you may currently not be so close with. Relationships add richness and purpose to our lives. Discover commonalities with your families and other educators. As opposed to strangers that greet you every day, you will now have friends. Friendly faces will add joyful moments to your day.
- 5 Practice gratitude.** Find opportunities to be thankful for the blessings in your life and at your centre. Find space for gratitude in your day by writing down what you are grateful for. Consider a gratitude wall and ask parents and educators to contribute their gratitude thoughts - sharing gratitude is a recipe for a happier life. When we remind ourselves of what we have and make this a daily habit, we can find more space for joy in our lives.

DO
WHAT
YOU
LOVE

Children need joy; the magic of love that fills their lives and makes them feel safe and accepted. Set up areas in your centre that celebrate children's families and honour all your children's cultural diversity and uniqueness. Centre resources that support community and cultural diversity are how we demonstrate that we accept and want to participate in children's lives. Creating a joyful learning environment starts with finding your joy and sharing that joy with the children and families you are fortunate enough to have in your life.

TTS supports educators with resources that inspire innovative provocations and opportunities to create joyful moments in our centres. Children discover and explore new ideas, work through

schemas and connect with friends as they play, resulting from a rich learning environment. If you focus on learning and creating rich provocations then joy will be present in your classroom.

In Canada, winter is upon us, and the joy in children's faces as they see the first snowflakes float in the air is wonderful. As you start your day, think about what wonders you can share with the children in your centre. Celebrate everyday miracles, the wind in our hair, the sun on our faces and the victories children experience through learning. Joy can be found in small wins, friendships, and gratitude. Focus on the present and celebrate, celebrate every day, and you will shift your focus and make space for joy.



The Importance of Mindfulness in Early Childhood

What Exactly is Mindfulness and What's so Great About It?

If you've ever just stopped what you were doing, closed your eyes and taken some deep breaths to help yourself calm down during an especially stressful situation then you've already practiced the basics of mindfulness—possibly without even knowing it.

While it can be practiced in different ways and contexts, mindfulness is simply paying attention to your breath, to your surroundings, to how your body feels. It teaches us to “just be” in the present moment without worrying about the past or the future—to learn how to feel difficult emotions without judging them or yourself. For kids, even very little ones, learning and practicing this skill can be enormously beneficial. Mindfulness teaches kids to slow down and eventually,

to be able to choose how they react to difficult situations and through their behavior, to arrive at outcomes that make them feel happier, more secure and to have a generally more positive outlook. And the earlier we can get kids practicing mindfulness—in the classroom and at home—the better off they will be as they grow and develop.

Why is practicing mindfulness important in the preschool years?

Part of the reason mindfulness is so effective for children can be explained by the way the brain develops. Connections in the prefrontal circuits are created at their fastest rate during childhood. Mindfulness, which promotes skills that are controlled in the prefrontal cortex, like focus and cognitive control, can have

a particular impact on the development of skills including self-regulation, judgment and patience during childhood. That may sound complicated, but the bottom line is that mindfulness can make young kids happier and set them up to be happier adults.

What are the benefits for young children?

The benefits to practicing mindfulness with very young children are myriad. Practicing mindfulness can help kids learn to focus, manage their stress, regulate their emotions, and develop an optimistic outlook even in the face of adversity. And teaching very young children to slow down, and kindly and compassionately check in with themselves can have both immediate and life-long benefits.

“Young children, (ages 3–5), can learn that they have a “still quiet place within, them,” says Dr. Amy Saltzman, MD, Author of Still Quiet Place: A Mindfulness Program for Teaching Children and Adolescents to Ease Stress and Difficult Emotions. Dr. Saltzman, who is also the Director of the Association for Mindfulness in Education in Northern California, says, “slightly older children (5–7) can learn that this still quiet place can be a place of comfort in stressful moments, and older children (8 and up) can learn to rest in stillness and quietness, observe their thoughts and feelings, and then choose their behavior.”

Why is mindfulness important now more than ever?

If ever there was a time to teach kids mindfulness and to develop a practice ourselves, it's now. “There are two nows,” says Dr. Saltzman. “Our previous fast paced media driven world, and the current COVID world. Both have stressors.” Disruptions in kids' routines, not being able to play with friends or spend time with grandparents or their usual caregivers can all cause stress in children. In addition, parents and teachers are likely to be more stressed and anxious now and kids pick up on that and feel it themselves. If the stress kids feel is frequent or chronic, the effect can be profound. A study by researchers at the Stanford School of Medicine used brain scans to show that chronic anxiety altered children's emotional-regulation brain circuits, making them more likely to suffer from long-term mood disorders. Mindfulness can reverse these effects making the practice not just beneficial but a crucial part of early childhood education during these particularly difficult times. So, taking a few minutes every day to build mindfulness in their routines—whether by just taking some time to help them focus on their breathing, blocking out everything else in the world or by engaging in other types of kid-friendly mindfulness activities— can, over time, help reverse some harmful effects of chronic stress,

How can I practice mindfulness with small children?

“Actually, most children age 3-5 are naturally mindful,” says Dr. Saltzman. When playing or when they are introduced to a new toy, they become fully immersed in the moment, shutting out everything else and focusing on that one activity. We can take advantage of this natural tendency and help support it, especially when kids experience difficult emotions. For children, learning to recognize and manage negative emotions can have a beneficial impact on behavior, mood and brain development.

TECHNIQUES FOR PRACTICING MINDFULNESS WITH YOUNG KIDS:

Help kids enter the present moment through their senses: “This can include the 5 senses- sight, hearing, smell, touch, and taste- and internal senses like the sensations

that accompany hunger, thirst, sleepiness, and the physical sensations that signal the presence of emotion,” explains Dr. Saltzman. “These basic practices lay the groundwork for more applied mindfulness as children mature”.

Take a “listening walk.” Take kids on a walk and ask them what sounds they hear, what the sounds remind them of, and how they help them remember a happy time.

Engage with food. Encourage kids to pay attention to each bite of food—what it tastes like, how it feels in their mouth, ask them to describe the feeling they get while eating.

SHOULD I PRACTICE MINDFULNESS AS AN EARLY YEARS PRACTITIONER?

Absolutely! Whether you are an early childhood practitioner or the parent of a young child, modeling mindfulness for kids may be as important as teaching them to practice it. “Embodying the practice is actually the best teaching,” says Dr. Saltzman.

Practice “Mindfulness Out Loud”: Make a point of sharing your emotions with kids. You might say, ‘Wow, I notice that I am starting to feel angry about all this mess. My voice is getting loud, my heart is beating strong. My shoulders are up. I am going to take a few minutes to breathe, and let this emotional wave pass, and then I'd like your help cleaning up.’

Learning to respond rather than react helps us and our kids: Rather than becoming increasingly upset, we pause and create solutions. We aren't spewing our feelings on to them, and we are simultaneously showing them how to have their feelings without their feelings having them.



If you aren't already practicing mindfulness, know that no matter how old you are, it's never too late to start. And as far as the kids we care for and love are concerned, it's never too early.



About the author:

Juliann Garey is a journalist and novelist. Her debut novel, *Too Bright To Hear Too Loud to See*, was chosen as an NPR Book Of The Year and won the American Library Association award for best fiction. Ms. Garey has written op-eds and essays on mental health care issues for *The New York Times*, *The Los Angeles Times*, *The Huffington Post* and *Salon* among others. Ms. Garey received her bachelor's degree in literature from Yale University where she graduated summa cum laude, Phi Beta Kappa. She holds a Masters in Journalism from the Columbia University School of Journalism.



Sensory-being

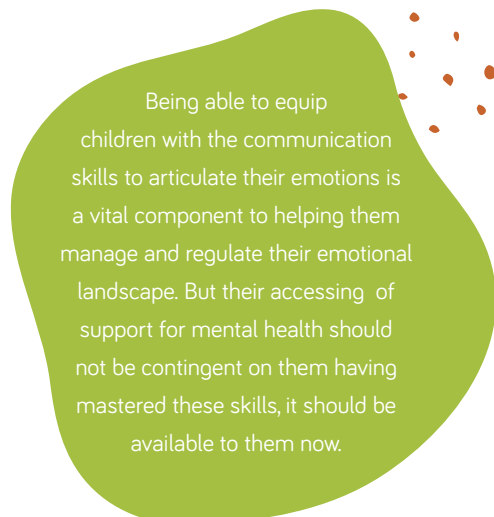
Sensory-being is a form of mindfulness practice that does not rely on words for its facilitation. You can share sensory-being with someone who does not speak the same language as you. You can share sensory-being with someone who does not use language at all. Early years settings are environments rich in opportunities for sharing sensory-being.

In this article I am going to explain how sensory-being came about and what its relevance could be in your setting.

Background

I work with people with profound disabilities who face barriers to accessing support with their mental health because the support on offer is reliant on them being able to use and understand language. People with complex disabilities are at increased risk of mental ill health so developing strategies that they can access is essential for those of us looking to support their mental health.

But of course, it is not just people with complex disabilities that struggle with using the language around mental health and who struggle to access support because of this. Children in the early years often struggle to articulate their emotions. You may have encountered children expressing anxiety in physical terms. For example, a child who is feeling anxious may say that they have a tummy ache.



Being able to equip children with the communication skills to articulate their emotions is a vital component to helping them manage and regulate their emotional landscape. But their accessing of support for mental health should not be contingent on them having mastered these skills, it should be available to them now.



About the author:
Jo Grace

Joanna Grace is a Sensory Engagement and Inclusion Specialist, Author, Trainer, TEDx speaker and Founder of The Sensory Projects. Jo is working to contribute to a future where people are understood in spite of their differences. The Sensory Projects runs on the principle that with the right knowledge and a little creativity inexpensive items can become effective sensory tools for inclusion.



Anxiety and mindfulness

We are all aware of more people feeling anxious within our societies, and the impact of the COVID-19 pandemic on anxiety levels has been significant. Many children are feeling anxious or are being supported by adults who feel anxious.

Running parallel to this anxiety epidemic we have seen a growing interest in mindfulness practice. Oxford University have a research department dedicated to studying the benefits of mindfulness. Elizabeth Blackburn, who won the Nobel prize in 2009 for her work on telomeres, now looks at how mindfulness practices can slow down biological aging. It is incredible stuff. Put succinctly, being mindful can have a positive impact on both our physical and mental health.

Equal access

Knowing how powerful a force positive mindfulness can be, there should not be anyone who is excluded. No one should be considered too young, too old, too disabled or too different to take part in this beautifully simple act.

Sensory-being uses an object as a medium for facilitating mindfulness practice. I have shared sensory-being with people with complex disabilities and with young children. I try to find an object that will absorb their attention and envelop them in the present moment.

In my work with people with complex disabilities there is an argument that says that they already lead mindful lives. For us being mindful is the practice of holding our attention on the present moment. It is not worrying about the future, not agonising over the past. It is being in the here and now. And someone with a complex cognitive disability may not be able to remember the past. They may not be able to imagine the future. They are in the here and now. But does this mean they are mindful?

If you think about mindfulness, the sensation of it has a kind of weight to it, it feels grounding, steadying. If I exist in a present moment, but this present moment involves the sound of the door shutting over there, the light flickering over there, the voices from that side of the room, the smells from that side of the room, then this is an agitated present. It doesn't have the secure feeling that mindfulness practice has.

Sharing sensory-being

If I can find an object that holds someone's sensory attention in the present moment, that protects it from darting away to other things, then I have the beginnings of sharing sensory-being. In early years settings, often you do not need to find the objects, the children will find them for you! Notice the child who stops outside to pick up a leaf and wonder at its beauty, this is a


potential moment of sensory-being.

In order to share sensory-being with another person you have to join your attention with theirs on that object, and then you follow a simple process which involves focusing on your breathing, lengthening your outward breath and being in that moment.

Actually doing it is so important

The simplicity of spending time in a moment with someone is deceptive. Yes, you might kneel beside the child who lifts up the leaf in wonder, you might physically stop what you are doing, and act as if you are attending to the leaf, yet in your head you are running through a to-do list and planning your next sentence. Physically, you may look like someone in the moment but mentally you are anything but.

Research into interoception and neuroception provides us with glimpses of the power of actually doing it: of actually making the effort in that moment to be in that moment. Take the invitation from the child who holds up the leaf, and try to still yourself, to simply look and be in that moment. When we do this, we unlock a different form of communication, one that does not need words, and we enter a moment that is beneficial to both our own mental health and the mental health of the child we share that moment with.

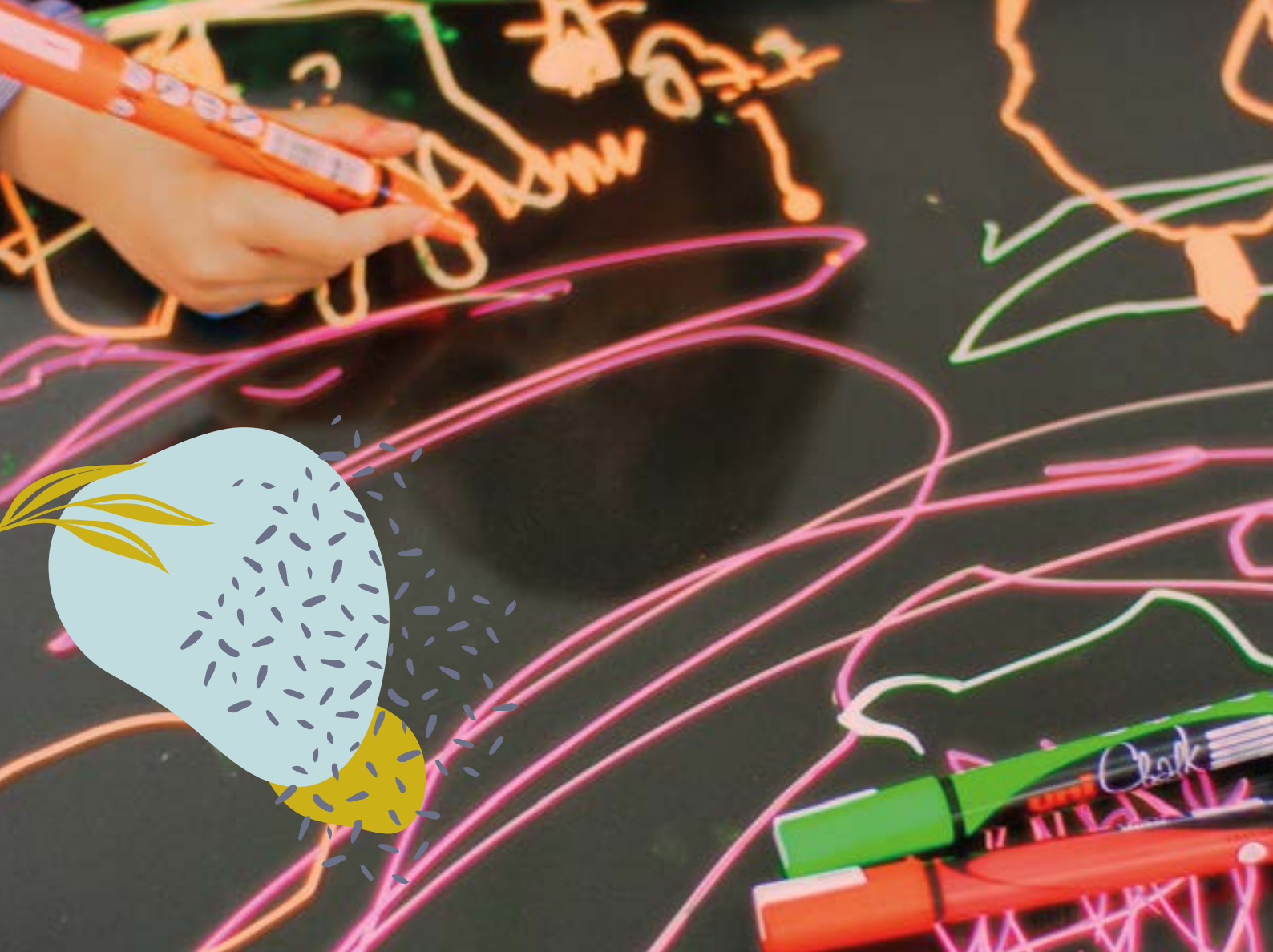


Meditative activities
create a deep stillness
in the mind.

Be in the present moment.

*Practice patience, focus,
and heighten awareness.*





The role of physical development in children's self-expression

Children's physical development is a vital foundation for their holistic learning and development. We often read about the importance of physical development for children's growth, strengthening muscles, mobilising joints and certainly supporting physical health. However, physical development also plays a vital role in young children's self-expression.

Young children in particular express themselves through movement, certainly before they can use language. Even when children have mastered the use of language, movement plays a big part in the way in which they communicate and express themselves. Therefore, the focus of my article will be on highlighting the way in which physical development and movement can support young children's self-expression.

Supporting children's physical development will allow them to build the vital foundations, the fine and gross motor skills, in order to be able to use these for self-expression. But it is crucial to provide children with opportunities for expressing themselves through movement whilst they develop their fine and gross motor skills. This builds children's creative expression from the very beginning of their lives and gives them the tools to do so.

I have chosen to unpick the role of physical development in children's self-expression through 3 key focuses:

EMBODIMENT

I am going to begin with the concept of Embodiment.

Embodiment is about making feelings, thoughts and ideas visible. So really bringing these into action.

Embodiment of feelings is entirely part of children's self-expression, this is a way in which they naturally communicate with adults from the day they are born.

When children are given the opportunities, space, time and resources to do so, they can express themselves creatively and through innovative ways by embodying their feelings, thoughts and ideas.

Embodiment is a very expressive and creative way of sharing and understanding feelings and emotions. For instance, this can be through embodying the sound of music. This encourages children to discover and understand the following:

How does this music make you feel and what does this feeling look like?

Or vice versa

What does this music look like in movement and how does moving in this way make you feel?

This is all about linking the sound of the music to what this might look like in terms of movement, encouraging children to consider and understand which feelings this movement might be portraying.

Embodiment and well-being

Embodiment plays an important role in children's well-being because any kind of physical activity has a significant impact on children's physical and mental health as well as self-regulation (Becker et al., 2014).

A good level of physical development promotes self-confidence, self-esteem and reduces anxiety

(Public Health England, 2019).

Yoga is a brilliant way of supporting children in embodying feelings. In yoga, the poses are connected with how the mind and body feels. Therefore the feelings become embodied across the various poses. For instance, the tree pose is all about feeling grounded, strong and tall.

Children can feel the peace, calm and relaxation through their bodies as they take time to perform a pose. A lot of yoga practices with children bring the poses into contexts, often playful, to support children's engagement in the poses. For example, children may associate the squat pose with a frog, or the wide-legged forward bend with an elephant!

Embodiment is defined as:

A tangible or visible form of an idea, quality, or feeling.

(Oxford University Press, 2021)



Children need to be encouraged to move their bodies in new ways, to stretch and importantly take time to slow their movements down, exploring gentle, calming movement and how it makes them feel. This is particularly useful for those children who may be very active. Such activities can encourage children to take time to be still, listen to the world around them go by and take a moment to understand how this stillness feels. Even if this is for just a very brief moment, with the experience of having done this before, children will be able to come back to this activity when they need to. Perhaps using it as a strategy for calming their feelings and movements down when they are feeling overwhelmed.



Practitioner insight

When I was a pre-school leader in a woodland learning setting, I did morning yoga outside with my pre-school group before each woodland learning session. This would only be around 5 to 10 minutes, depending on how the children were feeling and what their interests were that morning. This was a brilliant way for my pre-schoolers to begin their morning in the setting before tackling the business of the day! We even did our outdoor yoga sessions during winter when the children were all wrapped up. I would combine the yoga poses with more active movement and dynamic stretching at this time of the year to increase the children's heart rate for them to warm up ready for their outdoor learning.

EARLY WRITING

Children's physical development can be broadly divided into fine and gross motor skills. Children's fine motor skills are encouraged through many different play-based activities and daily experiences. Fine motor skills are important for progressing children onto using a variety of tools, including those for writing.

As practitioners we might often use the term 'mark making'. I believe it is important to reflect on the terminology that we use. The notion of children's emergent literacy (Clay, 1975) introduces a number of terms. Mark-making is an aspect of emergent literacy used to refer to the marks children make to convey meaning that do not represent alphabetical language (Bradford, 2009), or even phonetic language yet. This may also be termed as 'unconventional writing' and can include children's drawings. The use of the term 'early writing' can be seen to present the view of children as competent writers and meaning makers regardless of whether their early writing is conventional or not, and whether it is understood by adults. This is why I prefer to use the term 'early writing'.

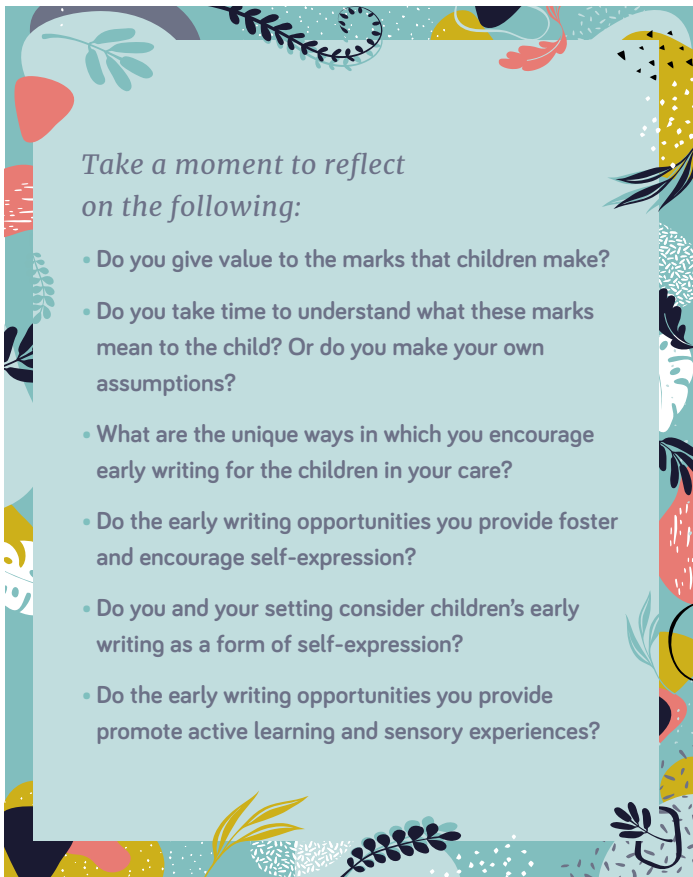


It is important to see the marks that children make as their way of writing, as mark making is writing for children. This is their early writing. And importantly, this is a form of self-expression. As young children are still learning to express themselves through phonetic and alphabetical written language, it is important to give them as many opportunities as possible to be able to express themselves in a variety of different ways.

Children's early writing shouldn't be limited to the traditional methods of paper, pencils or paint for instance. The natural world is perfect for supporting children's self-expression through sensory ways:

- Writing in the sand with sticks, feathers, using their fingers as a sensory experience
- Creating transient art with loose parts - a highly creative form of expression
- Finger painting with mud, snow, natural paints etc.
- Painting with coloured ice cubes - the challenge of the slippery ice cubes encourages grip and control

What other ideas do you have?



Take a moment to reflect on the following:

- Do you give value to the marks that children make?
- Do you take time to understand what these marks mean to the child? Or do you make your own assumptions?
- What are the unique ways in which you encourage early writing for the children in your care?
- Do the early writing opportunities you provide foster and encourage self-expression?
- Do you and your setting consider children's early writing as a form of self-expression?
- Do the early writing opportunities you provide promote active learning and sensory experiences?

AN ENABLING ENVIRONMENT:

As practitioners we need to not only encourage children to express themselves in different ways through movement, but we also need to provide an environment which will enable children to express themselves naturally without the adult's initiative.

Create a 'movement-rich' environment in your setting:

- Allow for plenty of floor space with no obstructions to ensure safety – this can be easier with moveable furniture on castors
- Provide sensory resources which encourage movement and dance
- Model movement games and dancing throughout the daily routine
- Play different music throughout the day- both indoors and out
- Provide different surfaces for children to experience and manoeuvre on

It is vital that children develop a positive attitude to physical activity and a love for movement. This will support their self-expression through those all important large scale movements in particular, which act as a vital foundation for physical development. Sometimes this can be difficult when space is limited, during colder weather or when children are simply not interested. It is therefore important to consider innovative ways to support children's enjoyment and motivation for physical activity. A lot of settings I have worked with make use of sensory technology resources to support this.

Here are some ways in which using sensory technology resources can support children to engage in physical activity and express themselves:

- Encourages dancing and experimentation through movement
- Spark imagination, creativity and a sense of performance
- Support fine motor skills through grip and exploration through schematic play – allowing children to develop their fine motor skills for new ways of self-expression (using a variety of tools for early writing)
- Encourage movement through curiosity and cause and effect
- Spark collaborative play and perhaps collaborative forms of self-expression, such as drama play and performance.

I hope this article has sparked early years practitioners' and teachers' thinking around the opportunities of self-expression through movement and children's progression with their physical development. Considering the importance of movement beyond the developmental aspects and into the realms of self-expression is an important step to reflecting on the wider issues surrounding children's voice and ultimately children's rights. But this is beyond the scope of this article so I will leave you to reflect on this!



About the author:

Angelica has 10 years experience in the English education sector, including private and maintained early years settings and schools. As an Early Years Editor, she actively collaborates with early years settings, educational experts, academics and professionals, working together on projects, practitioner research and educational content. After completing her Masters in Early Years Education from the Institute of Education, University College London, Angelica's research interests have focused around children's rights, including child-centred research methodology, outdoor learning, early writing and the sociocultural influence on children's meaning making.

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The Importance of Early Years Yoga

The past year has been full of ups and downs, and everyone has been finding ways to deal with new challenges. One important thing we can all do as parents and educators is to channel that energy into positive activities with the children in our lives.

Our children are the most important resources we have. By teaching them yoga and mindfulness at a young age, we are providing them with emotional regulation tools that they will use for the rest of their lives. When children begin these practices at a young age, they are building strength and flexibility, increasing body awareness, balance and coordination and developing language and social skills.

We have heard many times over the years, “My children are too young for yoga.” I’m here to tell you that is not true. Yoga and mindfulness are for every age and every body, and it is never too early to introduce those tools to children.

The key to introducing yoga, like any new thing, is to make it fun and age appropriate. Here are a few ideas of ways you can do that:



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Giselle Shardlow is the author of Kids Yoga Stories. Her yoga books for kids get children learning, moving and having fun. Giselle draws from her experiences as a teacher, traveler, yogi and mom to write the yoga stories found at <https://shop.kidsyogastories.com> or on Amazon (amazon.com/author/giselleshardlow) worldwide. The purpose of her yoga resources is to foster happy, healthy and globally educated children. She lives in Boston with her husband and daughter.

Act out books.

While reading some of your favorite books, try acting out the characters in the story. For example, tiptoe like a mountain goat or walk on your hands and knees like a red fox.

Have children create their own yoga space.

Try using a small yoga mat or cutting a regular yoga mat into a smaller size for children. At my daughter's preschool, they used carpet squares, which were the perfect size for little ones.

Pretend to be animals.

As a toddler, my daughter loved to act out animal sounds and movements. I'll never forget our trips to the zoo when my daughter would reach up into an Extended Mountain Pose in front of the giraffes or use her arms in Wide-Legged Standing Forward Bend when she saw an elephant. Just remember, children can communicate before they can talk. Animals are wonderful at sparking a child's imagination.

Bring awareness to their breath.

Mindful breathing is incredibly important, especially when dealing with stressful or stimulating situations in life. Support the practice of breath awareness by encouraging your child to smell a flower or pretend to blow out a candle.

Go on a field trip.

The animal park was a very popular destination for us when my daughter was younger. A farm is also a great place for children to pretend to be different animals and it's a great place for you to encourage their playfulness and creativity.

Meditate together.

I started this practice early with my daughter because when I would take five minutes to meditate in the morning, she would come sit on my lap. Introducing the idea of "quiet time" to young children and toddlers will help them deal with the busyness of life as they get older.

Be outdoors.

Going for hikes and talking about nature are great opportunities to explore yoga. Stand on one leg like a tree, hop like bunnies or squat like possums for instance.

Relax and rest together.

Every yoga class ends in resting pose. Practice different types of relaxation with your children.

Experience yoga everywhere.

Whether you're at an animal park, on a hike, on a road trip or at the grocery store, there are always opportunities to practice yoga!

While teaching yoga to young children can be a daunting task, it is truly a wonderful experience to share with your little ones. Why not give it a try by exploring some emotions with your children with the following animal poses that can be found in our *The Grateful Giraffe* yoga book! These yoga poses are purposefully sequenced to encourage flow from one pose into the next.

Kids yoga, animal poses



I am a grateful giraffe

Extended mountain pose



I am a finicky flamingo

Tree pose



I am a caring Koala

Eagle pose



I am an excited elephant

Wide-legged forward bend



I am a frustrated frog

Squat pose

I hope that helps to introduce a light and playful yoga practice to your young children and start them on the path to living a healthy lifestyle and enjoying a happy, peaceful life.

Mindfulness activities

My Happy Box

Make your own happy box filled with things that make you smile. You could include a photograph of a memory, a small activity you enjoy, things that make you laugh or things that remind you of happy times.

Sharing Happiness

We can help to spread happiness by being kind to each other. Plan some 'random acts of kindness' to surprise your friends and family. They don't have to be big things and sometimes the smallest things make us smile!

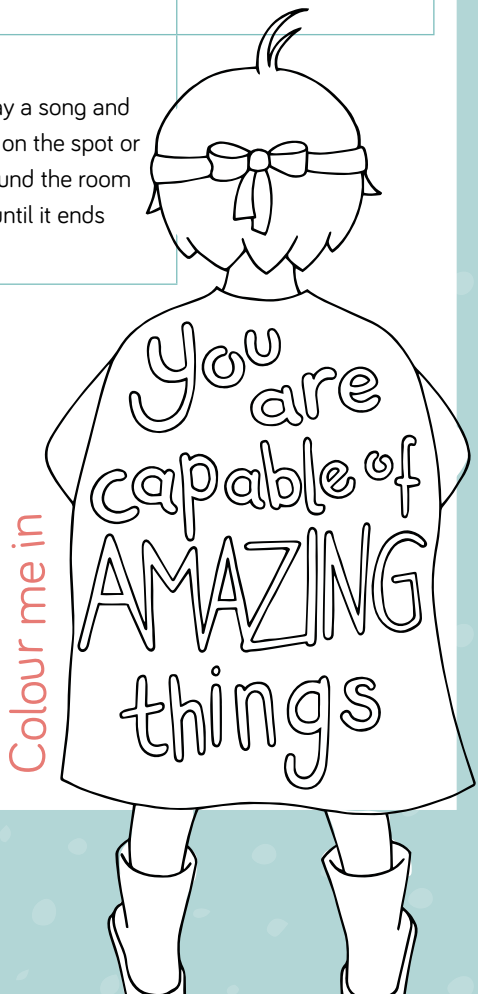
What makes you Happy?

Draw or stick pictures of things that make you happy. They might be people you like to spend time with, activities you like to do or places you like to visit.

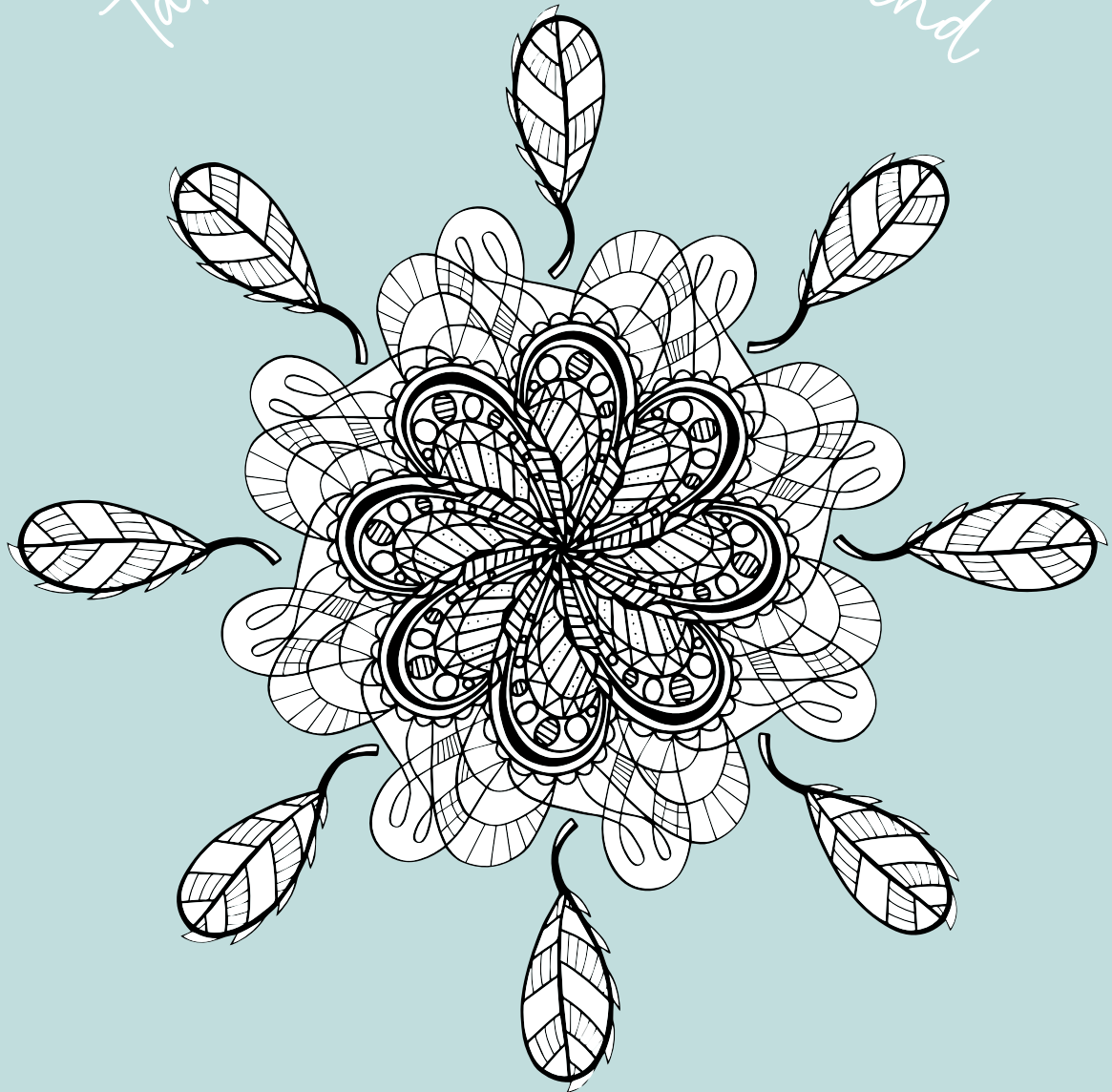
What does Happy look like?

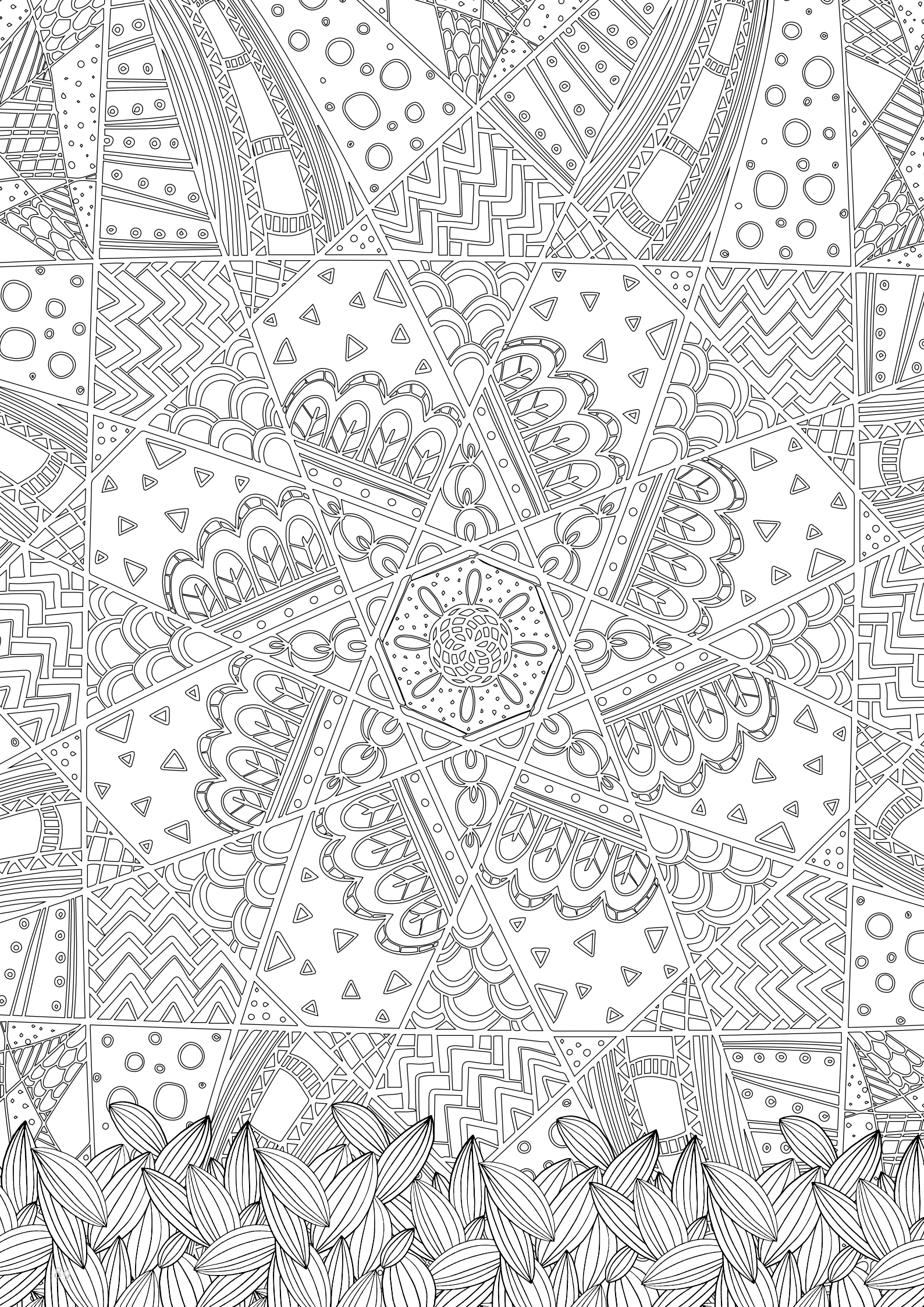
Draw a picture of what you think happiness looks like or what happiness means to you.

30 Active Mini Challenges

1 30 super-star jumps	2 Play your favourite song and dance all the way through it	3 Lie on the floor and stand up 10 times	4 100 claps 25 above your head 25 arms straight in front 25 behind your back 25 between your legs	5 Put a plastic cup on the floor. Step back 5 paces. Can you throw a bottle lid (or similar sized object) into the cup?
6 30 hops on your left leg	7 Walk up and down your stairs 20 times. (If no stairs, march 200 steps on the spot.)	8 30 hops on your right leg	9 Create a line on the floor and jump over it, side-to-side 20 times	10 Throw a cuddly toy into the air higher than your head 20 times in a row with-out dropping it
11 Lie on the floor with your legs in the air and balance a balloon or a ball on your feet for as long as you can	12 Lie on your left side. Raise your straight right leg 20 times	13 Use 3 soft balls or bundle 3 socks into balls). Can you throw them up and catch one or more before they reach the ground?	14 Lie on your right side. Raise your straight left leg 20 times	15 Lie on your back. Throw a ball or cuddly toy. Can you catch it with your feet?
16 Kick each leg straight in front of you 20 times	17 Kick each leg out to both sides 20 times	18 Sing 'Heads, shoulders, knees and toes' all the way through 5 times with all the actions	19 Be a boxer - 50 jab punches straight ahead	20 Lie on the floor with your legs in the air and 'ride a bike' for 5 minutes
21 Punch your arms up into the air 50 times	22 Stand on your left leg and make 20 circles in the air with your right ankle	23 Stand on your right leg and make 20 circles in the air with your left ankle	24 Play a song and skip on the spot or around the room until it ends	
25 Walk like a crab for 5 minutes	26 Be a frog! Crouch down, then spring into the air 10 times	27 Roll a bead, or a very small ball from one side of the room to the other using only your nose		
28 Walk like a jelly whilst reciting 'Jelly on a plate, Jelly on a plate, Wobble wobble, wobble wobble, Jelly on a plate.'	29 Balance a toilet roll on your head. Can you sit down on the floor and stand up again without dropping it?	30 Jog on the spot for 5 minutes		

Colour me happy
Take some time to unwind









SENSORY AT HOME



Co-Schooling: The Thematic Approach

What is Co-Schooling?

Contrary to home-schooling, where parents are required to report on their child's progress; with co-schooling, there is no such requirement.

Co-schooling involves providing your child with learning opportunities at home, in addition to their National Education. It means choosing to support your child in their early education, their development and their learning. We have real freedom as to the learning methods chosen, the themes to work on, the way of approaching them and the time dedicated to them.

It is important to really embrace this form of home learning, both for your own enjoyment and for that of your children. Enthusiasm is the best engine for learning. Do not force yourself, nor your child.

Through my co-schooling, I especially want to develop curiosity in my children, a love of learning, of discovering new things and of enriching their culture. This

helps develop their taste for learning more generally and will be useful for their education. I thus favour the discovery of subjects that they may not experience during their schooling or to discover them in a different way (by experimenting and discovering in a playful way). I do not tend to focus on reading or mathematics alone.

Personally, I take much pleasure in practicing co-schooling. It brings me intellectual enrichment and allows me to grow on a personal level. It is truly a passion. I appreciate that not all parents have the time or motivation for this level of activity. In this case, do not force it.

If you wish to actively participate in the development of your child, everything can be a source of learning. If you enjoy cooking, you can pass this taste on to your child and take the opportunity to learn concepts (mathematics, language, practical life). If you are more into gardening, this could become a chance

to learn about botanics, ecology, the little bugs in the garden. In my case, I enjoy creative activities, my children can work on colours and graphism for example.

If co-schooling is necessary for you (to help your child who is having difficulties at school or in the event of quarantine), there will of course be less freedom because the formal homework provided by the school will not necessarily interest your child (or yourself for that matter). Take advantage of the informal setting that the home provides to find an approach that will appeal to your child.

What is my approach?

My guiding principle is the seasons. It is a way of connecting children with nature, the world around them and of building their relationship with time. The seasons allow many learning opportunities. For each season, I offer themes related to seasonal festivals and I also introduce ecosystems (fauna and flora).



About the author:
Alexandra Fontanel

Alexandra is a 34 year old stay-at-home mother to three children; Mila (age 5), Taïs (age 3 ½) and Naïa (15 months) who is also planning to start her own business. Alexandra practices co-schooling and pre-schooling at home, drawing inspiration from alternative pedagogies (Montessori, Waldorf and Reggio). She shares her activities on her blog www.mavietrepidantedemaman.com [mavietrepidantedemaman.com] and on her Instagram account: [@mavietrepidantedemaman](https://www.instagram.com/mavietrepidantedemaman).

For example, in winter, I offer the following themes: Christmas, Epiphany, Valentine's Day, experiments with ice and learning about animals living in cold climates.

In addition to themes related to the seasons, I also offer other themes corresponding to areas that I want to introduce to the children (for example space and art) or their areas of interests (transport, fairytales and dinosaurs for instance).

For each of my themes, I offer activities in different areas inspired by Montessori pedagogy and other alternative pedagogies, such as Waldorf and Reggio. Some of these activities include practical life, fine motor skills, gross motor skills, sensory exploration, language, creativity and manual activities, arts & crafts, loose-parts, intellectual education (reading and writing including phonics and mathematics) and discovery of the world (geography, anatomy, botany and science).

I offer activity boards that remain available throughout the theme which children can access independently. I also offer daily activities that we do together, including creative activities, small world play and sensory trays for instance.

What are the benefits of this approach?

For the parent, I find the thematic approach more interesting when it comes to preparation. There is an educational reflection on an area that is intellectually stimulating. It also makes it easier to structure by giving direction and looking for activities/materials around a specific theme.

From the child's point of view this approach allows them to discover many different subjects, enrich their culture and open them up to new knowledge. The thematic organisation approach brings constant renewal in the different areas of activity (fine motor skills, sensory exploration, mathematics, graphics, phonology etc.) which allows the child's interest to be maintained and progress.

Finally, these transversal themes will allow for better understanding and memorisation. For example, when learning about marine animals you could make a mini-world of the ocean, take an outing to the aquarium and encourage a creative activity at the beach. Providing varied learning opportunities around one topic supports children in acquiring new knowledge and solidifies learning.

The approach of transversal themes links with Reggio pedagogy. The Reggio concept of "one hundred languages" highlights the multiplicity of means of expression through which a child can communicate (graphic, bodily, symbolic, sensory, scientific etc.). These means of expression can be seen as varied languages that reinforce learning when they are combined with each other.



How do you keep it fun and joyful?

I try to present each activity in a fun way to spark children's interests. I often present activities as games so children don't see them as school work.

Here are some other ideas:

- Use aesthetic and attractive materials
- Create exciting scenarios
- Favour manipulation of resources, especially printed resources. I very rarely use handouts on their own.
- Add extra details you know the children are interested in. For example, for phonology I created a set of rhyme cards for pairing, knowing this is the type of prop Mila likes to have.
- Create an atmosphere. For example, the use of a light table will make it possible to bring a sensory and playful dimension to an activity, making the activity magical and therefore more attractive. It also creates an atmosphere conducive to both a sense of calm and concentration.

I also offer inspiring themes such as castles and space which often create a real enthusiasm among my children.



Tips:

1. OBSERVE YOUR CHILD.

The more the activity is in the interests of the child, the more receptive he will be. If your child is passionate about vehicles, provide them with the opportunity to create graphics with vehicles, park numbered cars in the associated parking spaces, sort vehicles according to their colors and draw letters with vehicles for instance. Observation also makes it possible to detect and optimize sensitive periods. In Montessori pedagogy, these periods correspond to the different phases during which the child feels a sensitivity for a particular point of his development and wants to work on it thoroughly. He is then able to easily acquire specific skills. To spot these sensitive periods simply take time to observe your child. When he shows a great interest in the same kind of activity repetitively, it is the beginning of a sensitive period. It is therefore essential that the environment offers children, at the right time, the means to meet their needs, by offering suitable equipment.

2. PREPARE THE ACTIVITY IN ADVANCE.

Preparation time can lengthen the activity and cause children to lose attention. Preparing in advance allows you to focus fully on your child and provide the best support during the activity.

3. CHOOSE THE RIGHT TIME.

That is, a time when your child is not tired, too excited or hungry! He must be physically willing to do the activity and want to do it too.

4. DIVERSIFY ACTIVITIES.

When I offer the same type of activity too regularly, my children end up less interested in it. For example, I tend to alternate between creative activities, mini-worlds, sensory trays, fine motor skills and cooking.

HOME LEARNING ACTIVITY EXAMPLES



Small World – Frozen

I am a particular fan of mini worlds which are excellent for developing children's imaginations as they invent stories, supporting language by creating dialogue and stimulating creativity as they create various scenarios. Small

world play allows children to imagine stories in settings that they would not have thought of creating on their own, but that they will now be able to reproduce and extend. We can indeed use natural elements and various materials such as sand, fake snow, leaves etc. which will bring additional dimensions in addition to imagination, such as sensory play and a level of real contexts.

For this Frozen small world I created a magical and wintry atmosphere with a light table and translucent objects.

Materials used: Colour Changing Light Panel, Acrylic Trees, Acrylic Houses, Translucent Blocks, Acrylic Stones



Small World – Wooden Village

Here is a small world which stimulates not only the imagination but also construction skills. This allows children to develop their creativity and aesthetic taste.

Materials used: Tuff Tray, Wooden Village Kit, Wooden Lacing Trees.



Invitation to Build a Castle

Beyond creativity, this activity allows to work on fine motor skills and patience, but it can also be an opportunity to learn vocabulary (for example moat, drawbridge, dungeon, ramparts). Light will bring a sensory dimension and

create an atmosphere conducive to concentration. This can be an activity that stimulates the senses but also grips, addresses and develops concentration.

Children will be able to learn the multitude of skills when they reproduce the building of the castle and extend this in their own ways through their own independent play.

Materials used: Colour Changing Light Panel, Translucent Module Blocks and Building Bricks



Directed Drawing

This is an activity to work with graphics in a fun way. The child is dictated drawing instructions (up, down, a square, next to, above) which in the end produces a picture. For younger children, you may want to show an example of the finished article

Materials used: Illuminated Mark Making Board



Sensory Seek-and-Find

Support the recognition of numbers, letters and geometric shapes in a playful way by proposing a seek-and-find activity in sensory materials, such as sand, artificial snow or slime for instance.

Materials used: Tuff Tray, Squidgy Sparkle Numbers, Letters and Shapes



Loose parts

A transient creative activity on the theme of the Epiphany. The staging of a crown serves as an invitation for the children to create their own crown, or anything else which inspires them. Invitations are widely used in Reggio pedagogy; they aim to stimulate the child's creativity.

Materials used: Tuff Tray, Acrylic Stones



Transient Art Tray

A transient art painting activity with two objectives. Set out the activity in a Tuff Tray or similar to bring a playful dimension, allowing you to work on a large space and erase and start over as much as you want. Show the production of a piece of artwork and in particular the reproduction of a model.

Material used: Tuff Tray, Paints



Discovering organs

A playful way to discover the human body: to operate a cardboard mannequin in which are positioned felt organs. During this activity, we also practice fine motor skills.

Material used: Tuff Tray, Mannequin Head, Doctor's Set, Tweezers



A Sensory Journey to Space

A sensory den to play astronauts and set out to conquer space. Bright objects will make it possible to propose a Snoezelen environment that seeks the right balance between stimulation and relaxation. This experience allows the child to feel a sense of well-being while exploring these senses.

Materials used: Pyramid Den, Sensory Glow Construction Blocks, Illuminated Glow Roller Shakers, Glow Stack and Build



Mirrors and reflections

An invitation to observe the reflections in mirror pebbles on a mirror tray, to explore the visual senses. An optical game that can also be used for a counting activity.

Materials used: Tuff Tray, Silver Mirror Tray Insert, Mirror Pebbles, Squidgy Sparkle Shapes



Deliver the Crown Jewels

A fun activity to support fine motor skills. Diamonds are trapped in an icy crown. Children are given the task of releasing them by using pipettes, hot water, salt and a hammer. Once freed, the jewels can be placed decoratively on pre-cut crowns.

Materials used: Tuff Tray, Acrylic Stones (diamonds), Colourful Potion Bottles.

Social Snapshot



Educators around the world have been busy creating the most magical environments for their little ones. Here's a selection of our favourites!



The Magical Effects of Light
@paolalopez_kinderoo



Magical Potion Bottles
@paolalopez_kinderoo



Sensory Castle
@mavietrepidantedemaman



Develop logical thinking
@elenaestrainfantil



Creates Spaces with Purpose
@montessori_en_tu_casa



Let There Be Light
@ja_ni_la



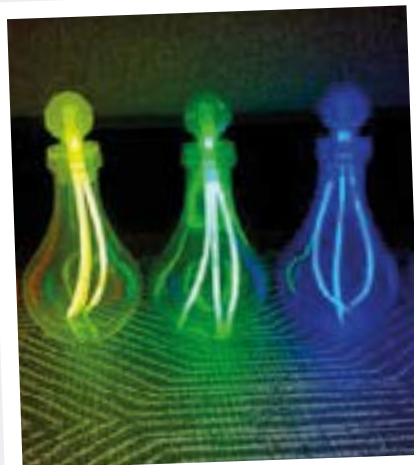
Light Panel & Artificial Snow
@sandramaternelle



*Glow Construction
Autumn Garden*
@@nyckelpigan.hedemora



Light & Shadow Play
@guldgruvantoreboda



Sensory Activity
@playingwithprimrose



Connecting Glow Tiles
@create_make_and_play

*For more inspiring content or for a chance to feature in our next edition of
The Learning Atlas, check out our instagram page and send us a DM! @_ttsinternational*



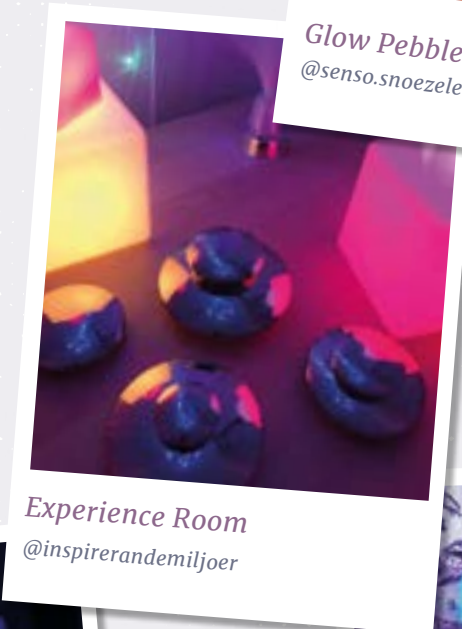
Motion Experiment
@digitalpedagog



Glow Pebbles
@senso.snoezelen



The Dark Den
@digilandet_kyrkslatt



Experience Room
@inspirerandemiljoer



Sense of Peace
@centrosferabianca_snoezelen

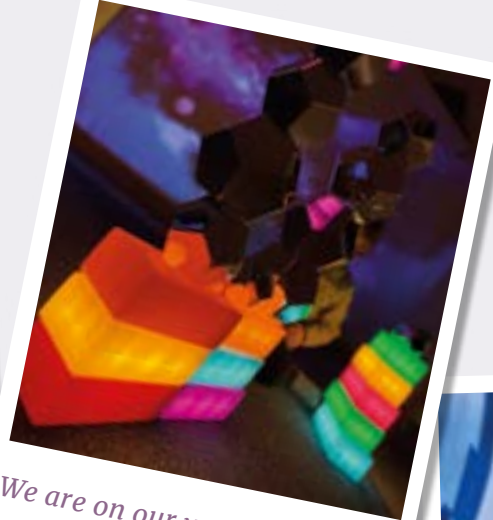


Exploring a Winter Landscape
@pedagoginspiration





Glow Roller Shakers
@ooo_rene



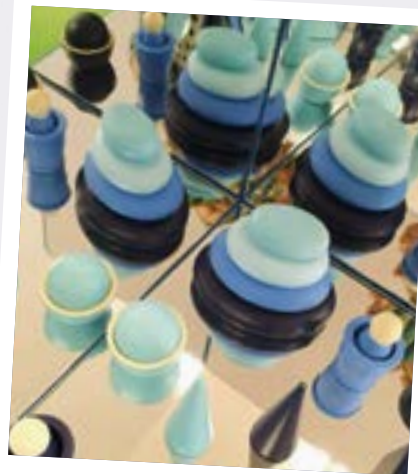
We are on our way to SPACE
@digitalpedagog



Sensory Shapes
@lamaitressenbaskets



Creating and Exploring Reflection
@iktlyckebby



Wooden Tonal Collection Meets Reflection
@maestraentusiasmada



Eduspace Opening Ceremony
@insplay_haridus



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I wouldn't change
you for the world,
but I would

change
the
world
for
you



