Windows into Children's Thinking

BIALIK COLLEGE, EARLY LEARNING CENTRE **JOURNAL 2023**

Bialik. *Be your best.*

Bialik College

From the Principal of Bialik College

It is a privilege to introduce the 2023 Journal that documents a Window into Children's Thinking at the Bialik College Early Learning and Children's Centres. As you leaf through the pages of this book you will embark on a transformative adventure inspired by the wonders of childhood, the guiding principles of the Reggio Emilia philosophy, and the essence of magic itself. After all, 'magic' has been our learning theme this year.

At the heart off our approach to early learning, we recognise that the journey of education is akin to weaving a tapestry of enchantment. The Reggio Emilia philosophy, known for its emphasis on collaboration, creativity and respect for the child's innate curiosity, resonates deeply with our commitment to nurturing young minds. Loris Malaguzzi, the visionary behind this philosophy, once said **"The child has a hundred languages and a hundred hands."** Just as a magician wields countless tools to create wonder; educators harness the diverse languages and capacities of each child, fostering an environment where their thoughts, questions, development, growth and explorations take centre stage.

In the spirit of our theme 'magic', you are invited to witness the captivating transformation that occurs within and beyond our walls. Just as the magician unveils the extraordinary from the ordinary, our children discover the extraordinary within themselves and the world around them. Through their play, their laughter and their boundless imagination they conjure a symphony of learning that is as inspiring as any grand illusion.

As Jews we know that our own tradition is rich with symbolism and wisdom. The concept of 'Hiddur Mitzva', the beautification of a commandment, resonates harmoniously with our commitment to providing the most beautiful and stimulating environment for our young learners. In this space the magic of discovery intertwines with the essence of Jewish values; fostering a sense of wonder compassion and community.

As you read through this journal, you are invited to share in the marvels that emerge when childhood, Jewish values and the art of magic converge. Thanks to the incredible dedication of our inspiring staff, combined with wonderful and supportive parents, we witness the transformation of each child into a confident and capable learner, ready to embrace the world's mysteries with open hearts and minds. We celebrate the magic of growth, of connection and of learning as we embark on this shared adventure.

We are grateful to our parents for entrusting us with the privilege of shaping these precious early years of their children's lives. My blessing is that this journey should be filled with enchantment, wonder, community and joy that accompanies every magical moment.

B'Shalom.

Jeremy Stowe-Lindner
Principal

From the Head of the Early Learning Centre

"What is unique about learning is its dedication to possibility. When we human beings learn, the act of learning carries us beyond what we have encountered and propels us into the realm of the possible. The human learning process is not simply about acquiring knowledge about what we have encountered: it is dedicated to going beyond the information given. There is no other species on the face of the earth so dedicated to the pursuit of the possible." Jerome Bruner

The thought behind the whole ELC immersing themselves with one idea, is because of a willingness to create relationships and connections amongst the staff; to develop an even stronger community where everyone has a sense of belonging.

The big idea of 'Magic' became the catalyst for our whole ELC investigation during 2023.

Documenting what has been observed in our work together with the children is fundamental to our approach. It represents a tool for exchange; for sharing and valuing different points of view.

When we talk about making the processes of learning visible, we are constantly aware of the importance of reflection, analysis, interpretation and discussion by the teachers as a rich source of professional development. The documentation is fundamental to our work with our children. It makes the thinking, often very complex, visible, and open to evaluation and interpretation. We encourage our children and teachers to challenge their thinking, to ask questions without knowing the answers and to revisit their ideas and thoughts in new ways in an effort to launch and relaunch our investigations.

The investigations in our journal have taken place during 2023 and are examples of what can be achieved during collaborative group learning. Each one is authentic and purposeful. An investigation may have been fairly short, or may have continued over many months and may still be ongoing. What follows are not investigations in their entirety but are rather small vignettes, part of the processes, from every classroom in the Early Learning Centre.

The words of the children are written in italics, and many of the articles are prefaced by the words of the children. It is our hope that in reading this journal you will be able to construct your own meanings and questions as active participants of this process.

Daphne Gaddie

Contents

Bialik Children's Centre

3 Year Old Kinder

The conventions in this book

A number of styles have been used throughout Bialik College Early Learning Centre Journal 2023 – *'Windows into Children's Thinking'* to designate different voices.

Serif Italicised Font
Indicates the voice of a child

Serif Bolded Font
Indicates the voice of an adult

To access digital content of exhibitions

4 Year Old Kinder

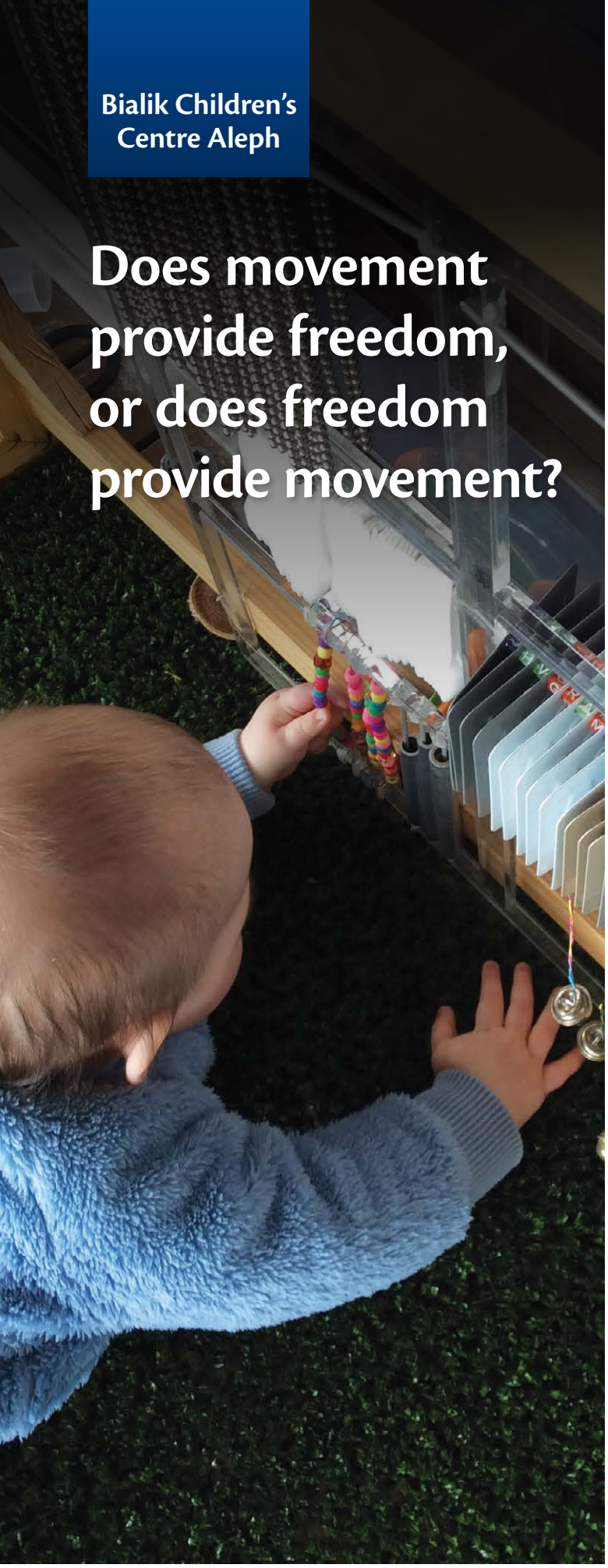
Prep

Year 1

Bialik Children's Centre

Bialik Children's Centre Aleph

Does movement provide freedom, or does freedom provide movement?



With the view that **"individuals learn and grow as a result of their experiences and interactions with the world"**,[1] what part does the educator play? Forming a sense of belonging by strengthening relationships between child and educator seemed like the obvious starting point in the Aleph room.

We should investigate what influence the educators have on the child's development and abilities. A nurturing environment provides a child with the developmental tools to move, however our observations show that nature also provides children with an innate understanding and impetus for movement.

We decided that by offering the best chance to experiment and explore the environment with their own bodies, capabilities and understanding, we could learn more as professionals. This had to be coupled with a consistent practice that enabled the child's choice, freedom, and interpretation.

A small group of children, who were developmentally non-mobile in the month of June were met with differing practices and pedagogies from their educators and families. Some educators strongly believed that placing the children in a seated position would make them comfortable, reassured, and happy. In retrospect this blinded our vision and ability to gage their potential of emerging movement, skills, and freedom to make physical decisions.

This made us question whether we have **"set views or beliefs that underpinned our work, determining what we actually do in practice"**.[2] We as educators needed to understand and witness how children move and to reflect on whether 'wonder' is central to all motivational action.

If the children have established close relationships with their educators, then they could also develop close relationships with their environment. If we focused not on **"internal processes but rather on what has caused the specific response,"**[3] we should be able to understand children's natural ability.

To challenge our practice, we decided to create firm rules for ourselves, not for the children. We would experiment with a new way of being and promote a freedom with the children's movement. We realised that it wouldn't be easy to question our own practice, however, with a willingness to question, be critical, and trust each other, we could create a reflective dialogue.

How could we ensure that all children within the Aleph room are provided with freedom to explore, freedom to be with a trusted

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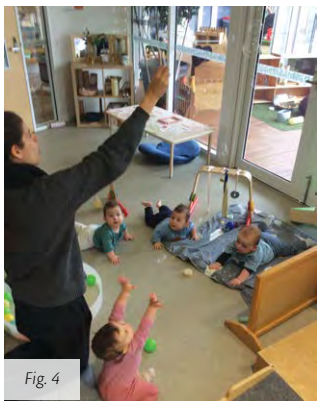

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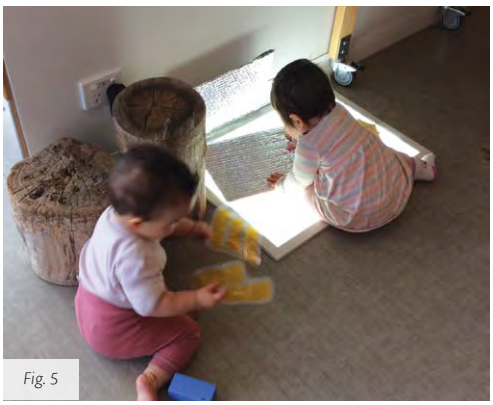

Fig. 5

Fig. 6

educator of choice and freedom to be in environments that they choose? (Fig. 1–2)

Positions that enabled movement after any transition in routines became a priority. From the meal table to play, nappy changes back to play. Purposeful routines that enabled the children to be close to an educator if they chose; for example, after a mealtime assisting a child off the meal table chair. Inviting the child to decide whether they were ready to leave or stay awhile to be close to others and social involvement. Educators were to provide natural opportunities that were child-led, so that the children could make independent decisions.

We approached the specific placement of non-mobile children in a purposeful way. By placing them on their stomach or back when transitioning from daily routines to the play environment, instilled a proactive engagement in movement. We restrained ourselves from instinctively picking a child up when they made a sound, instead offering different resources of interest, placing ourselves on the floor to interact with them which in turn led to an extended time for them to navigate their bodies.

After moments of reflection, the educators were inspired to build on the environment as the third teacher in ways that would inspire children to further explore their bodies with curiosity and wonder. How can we build an environment that enriches this desire?

We were initially met with verbal groans and moans from some children when following the golden rule of back or tummy on the floor. With an educator being there to support and continue to encourage the child to stay in these positions meant they experimented for longer with their own bodies. From being non-mobile only on their stomach or back, the children began to initiate their own next steps. On their stomach making push up movements with their arms, then bending their legs so that their knees touched the floor, and with a push back movement landed on their bottoms in a seated position, all by themselves. Some of these movements were tested out repeatedly first before applying the next steps.

A child lifted his head up for longer periods of time when resources such as bubbles were blown up high and then followed them with his eyes as they fell. This allowed him to continue placing weight on his arms and being engaged. Prior to this the child would rest his head on the floor making us think he was tired, but this could have been his muscles being tired instead. (Fig. 3–4)

Do all children have a desire to move or do some children prefer not to move? With the transformation from stationary play to travelling unassisted around the environment, we were privileged to be shown by the children when they were emotionally and physically ready and able to take their next steps.

Through observation, we discovered that some mobile children were exploring movement by crawling through different apparatuses, including under tables and through pokey holes. We listened with care and wondered how we could extend this curiosity. The idea of placing a long tunnel in the room with a lightbox to illuminate the experience within a dark environment ensued. How were they going to engage with this? Would they engage with it at all? (Fig. 5–6)

Over the first few days, the mobile children showed curiosity with the tunnel, however, some took more time observing its placement. A couple of children first began to look through the tunnel, realising that they could see each other at both ends. One child then moved to be with the other child from the outside of the tunnel, then both looking through again. After two weeks of the tunnel being in the room, the mobile children began to experiment with different postures and strategies. A child crawled into the tunnel just a little bit, and then crawled backwards to get out quite a few times until he crawled all the way through and out the other side.

The placement of the lightbox was so that the light would shine through the material of the tunnel, creating an experience for those non-mobile children as well. Would placing a child near the tunnel with the light spark a stronger desire to remain in a position such as their tummy, for a longer period of time? Could it possibly encourage them to move forward towards the light, or furthermore, towards the tunnel? (Fig. 7–8)

The tunnel enabled us to observe the children engaging with each other in a more complex and involved way. They used each other as motivation, observing their peers confidently move through the tunnel and assisted other children to move through the tunnel, who may have at first been tentative.

Does movement provide freedom, or does freedom provide movement?

Children were freed from a forced position usually given to them by their educators. They were now in a position that allowed them to be capable of achieving movement themselves. This strategy gave them the freedom to choose when and where they wanted to move rather than ordinarily being moved from place to place by an adult. The children indicated when they were ready to try complex approaches to movement, giving us clues about their next moves, as we observed and supported their choice. This would not have been achieved had the educators chosen the place and time. Freedom provides movement but in its own sweet time! We are the children's biggest supporters but were we unknowingly overly supportive? (Fig. 9–10)

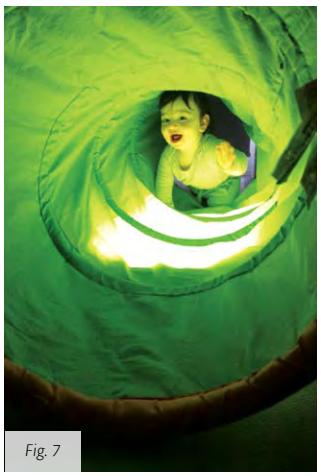

Fig. 7

Fig. 8

Fig. 9

Fig. 10

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Bialik Children's Centre Bet

The magical encounters with materials

As children's interests, comprehension, perspectives, and inquiries undergo significant transformations in the first few years, magical experiences of learning appear. Witnessing evolution in the Bet children ignited a pedagogical curiosity of encounters with materials.

We observed how children naturally engage with their surroundings, posing questions and expressing wonder as they ventured and investigated.

Children establish connections between various materials available to them in their surroundings.

As we delved into these inquiries, it prompted us to engage in reflective professional discussions regarding the influence of the environment on children's behaviours. We investigated the established routines of the day, and the children's reactions during these times. The children seemed to be speeding through experiences, resources, and spaces; so searching for moments to slow the pace down became a priority.

We started looking into how we could have smooth yet slow transitions during the day and realised that children needed the time during transitions to make decisions. Instead of announcing what will happen next, we started setting up the space/ environment so that the children could see what to expect next. Instead of creating expectations through conversations, we started to navigate through the routines, responding to their cues and capabilities. If we offered children options and choices throughout the day then we could change the perspective, allowing them to take control of decision making. This also creates a space for children to follow their peers and be influenced by other's actions when they make decisions for themselves. Reigniting indoor/ outdoor mealtimes provided children with alternatives and selection of environments. The emphasis was on all educators participating in the important task of engaging with children to create meaningful interactions and new findings.

During this time, we realised that the environment we were offering the children was not matching that of the children's evolving curiosity and required us to challenge how we create provocations into new learning. Creating all these changes within the environment and routines gave children more independence and an openness to see the environment through a bigger lens, exposing them to their individual curiosity. (Fig. 1)

The concept of the 'third teacher' described by **"Reggio Emilia identifies a 3rd teacher between child, teacher, and parent: the environment."**[1] Thus, we initiated the relaunch of our environments, bringing forth the questions that have surfaced through our discussions.

We questioned what insights could we derive from the children's actions during their investigative pursuits? What factors might encourage children to adopt alternative viewpoints during their encounters? (Fig. 2)

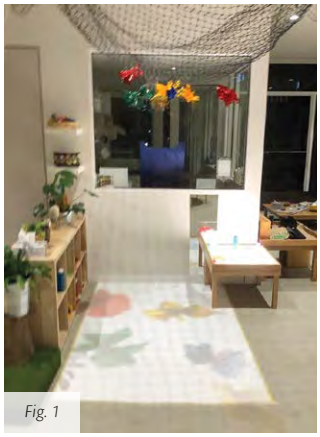
Incorporating an array of materials into open spaces, with a focus on the concept of 'magic', illuminated the need to include items with new possibilities and potential. Resources that could attach and detach, featuring diverse textures, visual qualities, and varying sizes; establishing an environment for children to investigate. Within this context, we encouraged their perspectives. This involved integrating natural elements such as leaves, bottle brushes, and tree components, along with a range of textured fabrics such as velcro, spongy textures, sparkling textiles, rubbery materials, and reflective surfaces. (Fig. 3)

The space led into exploration of light, shadows and colour. Introducing bottles and the use of a light table expanded and encompassed spaces that were illuminated with various colours. Within these spaces, materials were organised by their respective colours. The environment was intentionally crafted to induce reflections through suspended colour. Cellophane was hung from the ceiling, casting shadows using both natural and artificial light sources, and incorporating mirrors, all designed to inspire open-ended inquiries and discoveries. In these spaces, we observed how children reacted to reflections, colours, and lighting during various times of the day. Depending on the room's brightness, coloured reflections from the hanging cellophane were immediately noticed by some of the children. As a result, some children started to bring additional coloured objects and materials to place on top of matching colour reflections. They would arrange objects of the same colour, one after another, and continue to expand their collection. These occurrences also created moment of collaboration between children, joining efforts to discover and question together, at times abandoning some of their initial ideas. (Fig. 4)

The environment was set up with loose parts, non-consequential to one another and which could easily be moved and manipulated, all incorporated for investigation. Children were encouraged to explore and interact with these materials and objects without specific instructions or predetermined outcomes. They were free to use their creativity, critical thinking, imagination, and problem-solving skills to experiment and discover how the parts could be combined or used in various ways.

While observing children experimenting with various materials in different learning environments, such as the light and colours or the loose parts, we noticed that children exhibited diverse approaches to exploring these materials. They demonstrated multiple avenues of discovery and engagement with the various resources available to them. (Fig. 5)

An observation was made of a child who consistently chose a basket containing an assortment of textured fabrics. This child engaged in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an ongoing exploration, picking different materials to connect to a Velcro-textured board and other textured surfaces. Simultaneously, another child, selected a sponge with two distinct textured sides, running their hands along each surface and displaying various facial expressions as they did so. The investigations continued, day after another, and we noticed how children explored these materials against other materials, trying to attach or detach. (Fig. 6)

One of the loose parts, a hair roller, had become attached to a child's jumper. The child wearing the jumper was looking down and staring at the roller when another child approached and took hold of the roller and pulling it off the jumper, then they both looked at one another and the roller. The child then tossed the roller back towards the child's jumper where it attached and stayed once again. The two children smiled and then laughed as they repeated the actions and witnessed the roller sticking to the jumper. They had discovered something that attracts the roller and continued to experiment. (Fig. 7)

The idea that a child's actions mirror their thoughts became evident when we observed a child exploring a basket filled with an assortment of materials. With a discerning eye, the child carefully examined the contents, eventually selecting a shiny piece of material. She brought it closer to her, then moved it further away before finally positioning it at eye level.

The question of why this specific material was chosen over others remains a fascinating facet of our ongoing inquiry. If we look carefully and listen deeply, could we see what their thought processes are within these encounters?

Reviewing the evidence of the children's inquiry processes and research, we wondered what it was telling us about their encounters with different materials. Playing the role of a facilitator, by creating environments conducive to investigation and without imposing predefined ideas or guiding the children's inquiries, we were curious to understand the children's perspectives on this journey and continued to inquire by following the children's footprints. (Fig. 8)

We were being intentional in the design of our environment, finding ways to reflect on the children, their questions, our observations, and their perspectives. Creating environmental curiosity with reused, repurposed, and natural materials allowed children's creativity and imagination to grow within their investigation and research. (Fig. 9)

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Bialik Children's Centre Gimmel

When it can't be seen again does that mean it disappears?

What we thought might be a link to the concept of magic appeared when greeting the children one morning. One of the children requested the caterpillar book, which encouraged all children to listen to the story. Was it because they were familiar with it, or maybe it sparked their own curiosity? This became a daily request.

The concept of finding a caterpillar to observe and, if we were lucky enough, witness a life cycle, propelled us to explore this as an option. Was this what the children wanted to know about? Or was this part of our own intentional teaching? (Fig. 1)

This made us think about our own pedagogy as educators and researchers alongside children. We asked ourselves how children learn and realised that their curiosity has no linear way of thinking. Their interest was not the same as ours, so we needed to be **"open to ideas, the ideas of colleagues, the ideas of children and the ideas of families."**[1]

Often a sense of accomplishment is felt when we notice something sparking a child's interest in the learning environment. But one thing is for sure, when the children discover something on their own it is far more magical and wonderous than anything we could have prepared for them.

We discovered that there is magic in the language of children. There seemed to be a lot more meaning behind children's words, actions, and responses. Are adults' ears and eyes open enough to hear and see these secret messages?

Fig. 1

Fig. 2

Fig. 3

Fig. 4

We began to tune in with a higher frequency and clarity and welcomed the unexpected, by noticing children exploring the outdoor natural environment in search of caterpillars and other insects. A chorus of statements from the children about what they saw ensued. (Fig. 2)

Look a tiny spider.

Let's go for spider hunt.

Look, look, ladybug.

Butterfly.

Small caterpillar.

One afternoon, a group of children were climbing on a tree trunk when one child stopped to notice something. Gaining the attention of her peers, the children started to carefully observe the details of an insect on the tree trunk. As they moved around to explore the trunk, they realise that there were insects everywhere, hundreds of them. (Fig. 3)

The children made it their priority to look for more insects in the garden each day, looking high and low with intrigue to see what living creatures they could find. (Fig. 4)

Where is he going?

Look, ants, don't touch.

They going to have lunch?

Where the ants going?

They are going with mommy and daddy.

They need leaves.

One child observed a group of ants moving, as if they were making a circle. He watched as they mulled around the same spot, not going anywhere but following one another.

After lunch the child went back to the same spot to view the ants but discovered they were not there. Children began questioning why the insects they had seen in the morning were now 'hiding' in the afternoon. (Fig. 5)

The need to keep searching each day became the children's focus and made us, their educators, wonder.

One of the strongest connections children can make is when they involve themselves in exploration, navigating resources and responding to their own observations and experiences.

This encouraged us to help the children create their own stories, transferring what had been seen outdoors to discussions, helping them make sense of their experiences; in their own way, in their own time and with one another.

"Flexible environments allow teachers to be responsive to the interests of the children, freeing them to construct knowledge together, what children learn does not follow as an automatic result from what is taught, rather, it is in large part due to the children's own doing, as a consequence of their activities and our resources."[2]

A collection of play insects combined with tree stumps were displayed offering unique patterns, textures, crevices, and forms as a provocation to what they were experiencing outdoors. (Fig. 6)

Can I touch it?

It's not going here.

Pasuni need to take the spider outside? (This child remembered an educator taking a real spider out of the room!)

Don't grab it like that.

Is going to bite me?

Need to go outside!

One child started singing the first three words of the Incy Wincy Spider song when two other children joined in, all the while moving the creatures around the logs and grass. The educators

Fig. 5

Fig. 6

Fig. 7

Fig. 8

were not involved in these interactions, which made us critically reflect on the part we play in children's learning.

We listened to rich discussion and watched the children as they narrated their own understanding and collaborated with one another in search for more meaning. Sometimes their views were met with opposing points of view.

Look ladybug (as a child pointed to the spider).

No, it's a spider.

An investigation then ensued. Children had seen white webs in the garden and exchanged their thoughts on what lives in them.

I'm trying to take the spider out… 1, 2, 5 LEGS!

They are hiding from me.

Spiders inside the sand.

1, 2, 3 Legs, spider going inside.

Providing a large piece of white cotton wool with tiny plastic spiders inserted, the children felt, looked and inspected. They searched for spiders in the wool. We then added paper and black pens to bring their thoughts and reflections out both in dialogue and in drawing. (Fig. 7)

One of the plastic spiders was placed inside a cylinder and a child expressed concern that it would not come back.

It will be gone!

Then, a real spider was found in the children's room and was ushered outdoors by an educator. The children questioned what was happening.

Will it come back?

We will find it again.

The children looked around the classroom and furniture to see where the spider may have gone, even going outside to see where the educator had placed the spider. The children re-enacted the ushering of the spider outdoors using plastic spiders provided.

Were the children worried the spider would disappear and never be seen again? Or did they prefer to never see it again?

Insects cannot appear at a time the children would like them to appear, but if the children are lucky enough, patient enough and curious enough they will find some again. Creatures living outdoors are unpredictable and fascinating; they are part of the world we share and live in.

Encounters with nature have become cherished moments for our children and these may have previously been taken for granted. These encounters do not occur simply when we want them to. (Fig. 8)

The magic of the land **"has allowed us to understand how much nature pursues her own ends independently of our own wishes."**[3] If we look after our land then these encounters won't disappear, rather, they will continue to bring wonder and fascination.

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Bialik Children's Centre Dalet

Magic can be found in the formation of the land

We were given a gift, a plant with beautiful flowers, the colour shades varying from dark pink to light pink to white. We took this offering seriously as it was delivered with one instruction, keep it alive.

A child, whilst observing an educator watering the plant, asked why it needed water. The fun began. How does the plant drink after the water has disappeared into the soil?

Acknowledging that the children seemed puzzled and questioned how the water reached the plant, we thought it might be an idea to show them a plant that grew without soil, exposing the roots naturally. An orchard does just that! Various plant cuttings were introduced in glass jars for the children to analyse and reflect on what they saw. (Fig. 1)

A child examined the roots within the glass jar, then exclaimed *Fluffy!* This led to further provocations and handmade felt strips were sourced and twirled into root like shapes and formations. We also included branches that were entwined like roots and lights to illuminate the details of the growing root systems. (Fig. 2)

We used drawing as a language for the children to reflect and express their thoughts, ideas and questions. Paper and black pens were offered alongside the provocations.

"Representing our learning process and being able to share with others becomes indispensable for that reflexiveness which

Fig. 1

generates knowledge. Images and intentions are recognised by the subject; they take shape and evolve through action, emotion, expressiveness, and iconic and symbolic representations."[1]

I see that.

I see plants, do you want to see my plant?

It's the roots everywhere, five leaves on there.

Indigenous perspectives are embedded into our cultural responsibility as a community. We often take moments to go on place-thought walks to soak in the natural world we live in, **"based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts."**[2]

The children went in search of offerings from the land, finding gumnuts and Manna gum leaves on the ground. They collected these and we in turn included these in our research. This reminded us that we are all welcomed by first people **"our belonging is the Munna gum, you are welcome to everything from the tops of these trees to the roots of the earth, you are given freedom of the bush"**[3]

On our return from our walk, we viewed the welcome message from Aunty Joy Murphy to gain knowledge about ancestry, honouring the land and vowing to continue with the responsibility bestowed upon us.

The gatherings from the land were added to the children's drawings and investigation. One child drew in great detail, the bumps, indents, wrinkles, and textures observed.

I see green.

I see black.

It's brown and dirty.

With the addition of a microscope, the children were able to see the collected items up close; the intricate parts that make up a root, leaf, and gumnut. Almost like magic, where imagination and construction of secret worlds collide. (Fig. 3)

One of the children described their drawing, pointing to each plant.

They go around and around.

These little bits I'm drawing.

I need lots of gumnuts, I draw little dots in the middle of the gumnuts. (Fig. 4)

These illustrations of thought and understanding were transferred when we introduced the use of clay as a malleable and transformative medium. **"The history and evolution of humankind's relationship with earths most primal element, clay."**[4]

The children were experimenting and developing their skills with clay, recognising the capabilities of this medium, whilst comparing with other textures of the natural world; bark, stones, and pinecones.

It's bumpy.

It's smooth.

It's rough. (Fig. 5)

Evolving from the roots displayed and the children's drawings, pictorial provocations of larger root systems that grow above the surface of the land were provided. This inspired additional use of the clay and exposed further questions and thoughts.

It looks like a tree stump, it's the bottom of the tree.

Look I made lines.

Fig. 2


Fig. 3


Fig. 4


Fig. 5

Fig. 6

Fig. 7

Fig. 8

Fig. 9

To view these lines, rolls and textures, we began to build the clay up vertically as you would see on the land. (Fig. 6)

The children discussed and commented on the lines up on a tree. We then created coils from the clay that represented these roots, both in size and density, and this offered the children observations and comparisons between the roots of the larger trees and the smaller plants.

Roots are down low; tree goes up high. (Fig. 7)

A child transferred their drawing of roots to the clay experience; examining and paying great attention to the magic of the roots they had been investigating and the growth of our clay tree. This seemed like a visual acknowledgement, making clear connections with the environment through their work with clay. We therefore decided to use the children's drawings of root systems in our clay tree construction. (Fig. 8)

From listening to the children's voices and responding to our indigenous culture, a presence of life was discovered, starting from small roots systems to the larger growth of a tree. (Fig. 9)

The growth that the children witnessed in the clear jars invited expression about what they saw and they transferred their knowledge from one experience to another. They connected their understanding of the plant roots to the trees, whilst experimenting with the clay. The 'Welcome to Country' statement, acknowledged every day, led us to the discovery of what the land has to offer by giving us a plant to nurture. Our relationship and continual connections to Country emphasised community and gave us the ability to focus deeper and to strengthen our appreciation and respect for the land.

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3 Year Old Kinder

Kinder 3
Aleph

The individual and the group

As we welcomed a collection of unique individuals – children, family members, and educators – we navigated the challenge of building relationships that would be key to a cohesive and secure learning environment over the next two years. Relationships are at the heart of the Reggio Emilia approach and, in turn, the work that we do in the kinder learning environment. Further, relationships are key to cultivating an environment that honours children's unique identities as individuals and valued members of the group.

The developmental needs of our cohort were carefully considered; Jean Piaget theorises that children at this age are developmentally egocentric, with the child assuming everybody sees, thinks, and feels the same way that they do. In our eyes the challenge would be broadening children's horizons to the world around them and, in turn, supporting children's learning as active **"participants in different relationships and communities"**.[1] Founding Reggio Emilia theorist Loris Malaguzzi proposes that **"a child is born a first time, and then, through the long and difficult process of constructing his or her identity, it is as if he or she is born again"**.[2] Through the interactions with the world and people around them, children create their own identity, their 'me-ness'. And thus, as we began to reflect on the seemingly magical process of identity rebirth in the context of our newly formed kinder class, a thread of focus soon emerged; how is an individual shaped by the group they find themselves in? (Fig. 1)

Fig. 1

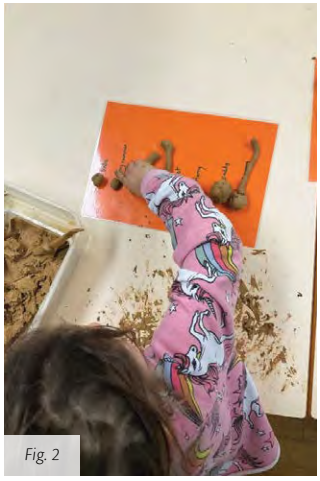

Fig. 2

Fig. 3

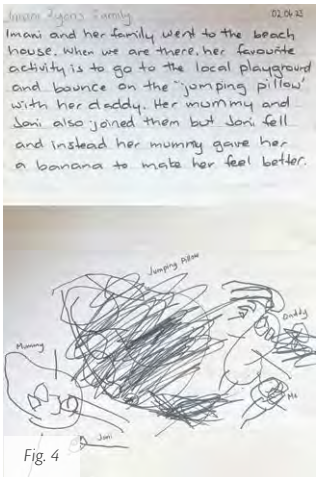

Fig. 4

Just as **"children can, and should, influence the world around them including the people they share it with"**,[3] they are influenced by the communities they inhabit. Children are born into communities, each with their own established culture based on shared values, faiths, experiences, expectations, and perceptions of the world. The communities' culture becomes the child's culture. As children grow, they become exposed to groups beyond their immediate family, and with each exposure to a new community a child forms their identity as an individual within these groups. An individual within their family – the child's first and primary teacher – within education settings, extracurricular environments. The child's identity is shaped at the intersection of their communities.

As our group of individuals started forming a group, a clear unifying factor continued to reemerge through children's play and art – families.

All my family will be my best friends.

Children approached this topic as experts in their own right – with incomparable knowledge of their own families, they had a wealth of knowledge to contribute to the group.

My daddy went out today. Out to dinner with some of his friends from work. Sometimes mum works from the office and sometimes at home.

With an innately meaningful area of learning being explored, children **"can contribute to the project from their own knowledge and suggest questions to ask and lines of investigation to pursue"**.[4]

The children's focus was on the everyday life, reenacting routines and roles familiar to them. The Reggio Emilia approach **"indicates that the process of unpacking or defamiliarising everyday objects and events can be deeply meaningful, interesting, and instructive to them."**[5] Through the investigation into the familiar topic of families, all children in the group had an entry point – unique knowledge and experiences formed into expertise on their own family.

With each child's individual contribution, the group's collective understanding of the concept of what family can be broadened beyond the walls of their own homes. Children and educators explored the uniqueness of each family, examining family members, events, holidays, music, and language, through the eyes of children. We encouraged the children to document their family through a number of mediums; the Reggio Emilia approach has a strong emphasis on the use of creative arts as a primary method of making thinking visible.[5] The use of graphic languages, including drawing, painting, and water colours, as well as play dough, clay, and photography allowed varied opportunities for children to document their perspective of their families and of their place within their family.

That's gonna be my mum's eyes. They're her ears. She likes to listen to fast music.

I drawed my dad spotty with a beard. (Fig. 2–3)

The Weekend Journal – a documentation kit which includes a sketchbook, digital camera and photo album – was established so families could themselves become active participants in this investigation, inviting rich discussion as children documented the magic in the everyday through photography, drawing and verbal narration. Together with the children, educators documented conversations about their families and revisited these ideas through the graphic languages. We then used these explorations as a prompt for discussions to deepen our understanding of the broader concept of family, engaging children in a continual process of reflection and relaunching.

Singing songs is a family.

Families are more precious.

Families are special and kids and sisters because my sister loves me.

Families can change babies or people or dads or mums of sisters or pets.

Thus, the voice of each child was captured in a way that meaningfully honoured the abilities and strengths of the individual within the context of a nurturing and diverse learning group. (Fig. 4)

We began thinking more deeply about the relationships between children, their peers, and educators in relation to our class structure. Reflections on the way the physical environment was shaping paired play and small group play, allowed educators to adapt the physical environment to support all children to feel connected to and comfortable in sharing their identity. Ensuring

Fig. 5

Fig. 6

school, educator and families' values were abundantly present in the learning space, through signs, symbols, and photos, to the respectful and relaxed manner communication was delivered, was crucial in creating an inclusive and welcoming environment that allowed children to see their individual identity reflected in the classroom. Seeing themselves reflected in the learning environment only strengthened the children's sense of belonging established through the building of secure relationships.

That's a family.

No, that's a person.

More people is a family.

Creating groups that facilitate an interchange of knowledge and opportunities adds depth of learning to the relationships being fostered between each child and the group. Seidel suggests **"the group that embraces the contribution of each member, however diverse or contradictory, may well provide exactly the right context for the emergence of strong individual identities."**[6] Just as the individual is influenced by the warm embrace of a nurturing group, similarly the group is defined by the individuals within and surrounding it. As we develop a comprehension of the impact of our actions and behaviours on the people around us, we endeavour to work for the benefit of the collective, understanding that we as individuals give to and take from the group.

Community is how you be in the Kinder.

Community is when you have to help your people.

Fostering this sense of community responsibility helps us see children as incomparable **"resources to each other's learning"**.[7] As the children engaged in this interchange of knowledge and understanding, we saw not only the discovery of magic in the everyday but also – perhaps more importantly – the magic in children's ability to be 'born again' in their continually evolving identity. From the beginning of the year, the children made clear the consistent strand of interest that bound them as a group. They came into their new kinder environment with an identity established through interactions with past and current communities; they openly offered their unique ideas, knowledge and perspective to their peers and, in turn, were open to hearing their peers' equally unique ideas, knowledge and perspectives. These interactions shaped all who partook in them, refining each child's 'me-ness', that is, the identity they construct for themselves. (Fig. 5–6)

Looking forward, our group have another year together to learn from one another's unique perspectives and experiences. How will the individual continue to shape and be shaped by the group? What will be the ongoing implications of consistent and secure relationships for each child's learning and development and the growth of the group as a collective?

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Kinder 3
Bet

Environment and relationships

"A child's self-identity is constructed out of relationships formed with people and things in the environment."[1]

As we began our year with the three year old group our responsibility was to create an environment that would make the children feel that they belonged to their class community. In order to do this we asked ourselves how do we create the magic that will foster relationships between this group of children, educators and the materials? How do we set up our classroom environment that will ignite curiosity and engage children as powerful thinkers and learners? What materials do we choose that will capture the children's interest, whilst simultaneously encouraging collaboration for deeper understanding and learning? How do we encourage interaction amongst the children that would be authentic and at the same time enjoyable?

Knowing the pliable nature of clay, we introduced this to the children to see how they would react with the material. Clay is an amazing medium to work with as it stimulates children's curiosity and fosters their imagination. It naturally engages the mind and hands simultaneously. Clay brings creativity, observation and relationships that can create a community of learners. They learn to problem solve, collaborate and hypothesise their own theories.

The children were able to poke the clay with their fingers, throw it on the table with a force to make it flat and smooth and mold it in any shape or form they wanted including making a ball, rolling a coil or making a flat piece. All of this was igniting curiosity and wonderings which led to some dialogue. *I am rolling mine to make it long. I will make small balls, lots of them. How did you make it so long? It looks like a big snake.*

"We sometimes forget just how astonishing it is to make something that wasn't there before… To make something appear on a surface – a mark, a line, a shape – is magic. Each mark is a surprise."[2]

Clay exploration became part of our daily routine. As the children worked in small groups, they were able to observe their peers with clay. Through the language of clay, the children were able to connect with each other. They were quite comfortable among themselves. Some children were not ready to touch the clay but they would come into the studio to watch other children and it was not long before they joined in. The children had created a culture where they could have fun with each other, laugh, giggle and enjoy the exploration.

The children made objects with clay. On one occasion, they joined pieces together and left these to dry. When they returned the next day they noticed that the pieces had not stuck together and the structure had fallen down. The children seemed a little disheartened. **I wonder what happened. How can we fix this?** The children were projecting their thoughts out loud to find a solution to their problem.

I think my tower was thin in the middle so it could not stand and it broke from the middle.

Fig. 1

Fig. 2

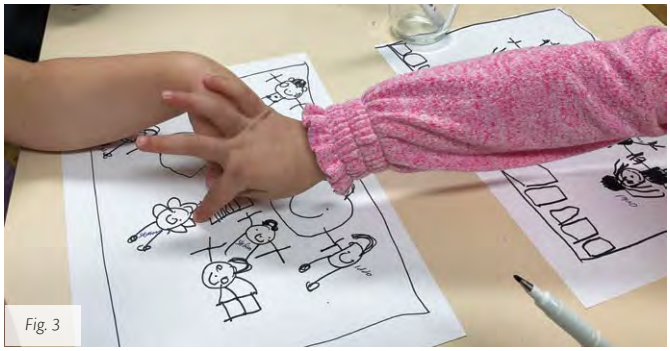

Fig. 3

When I made it, it was standing but when it dried then it is not standing.

Maybe you need to put more clay to make it strong in the middle.

Educator Amelia Gambetti writes, **"When children struggle with solutions and come up with different kinds of strategies or theories, their brain enters into action. If your brain is active, you think, you get a certain kind of power."**[3]

I know we can stick it with glue, the white glue.

If it works then it will be magic.

This was an opportunity to introduce slurry, a special name for clay glue. Some dry clay pieces were soaked in water to see what would happen the next day.

It has turned into wet clay.

Now it looks like a normal clay.

This is Magic.

It was clay before now it is a clay glue like we made before.

The children were introduced to the tools to help press clay, however some continued to use their fingers when joining the two clay pieces together. (Fig. 1)

During their exploration the children had learned that if they want their clay structure to stand it has to be flat and thicker at the bottom. Adding some tools and making slurry definitely ignited more conversations amongst the children while challenging their thinking and problem solving skills.

The children would freely go to the clay book which was set up as a provocation and browse the pages. One page demonstrated mark making. The children wanted to make marks on their clay and understood that they would need some sharp tools to do this.

I need something sharp to make lines.

I want some sticks to draw on my clay.

I want to make holes like in the book.

Can I make holes with the sticks?

I will make a ball and then press it on the table to make the bottom for my pot.

I will roll it and make a coil.

I will join the coils together and then it will be like a pot. But I need to put a flat piece first and then build on it.

Clay is like magic. You can do whatever you like with it and if you don't like what you did, you can fold it and start again.

Magic means when you can make something different from the same thing.

Magic is when you say abracadabra and something happens.

Upon returning from Term One break, we noticed that the children were more comfortable with each other. It was evident that before they were able to connect with each other they had connected with clay. This helped build the communication which was now flowing freely amongst the children and the material.

This presented us with an opportunity where children could work on a project towards a common goal. The children who were invested in exploring clay were asked: **Can you think of one thing that you can all work on together with clay?** One of the children began making faces using clay and called it a 'rock family'. Using this as a provocation we asked the children: **Do you think our class is like a family?**

We want to make our class family.

How are we going to do that?

Can we first draw what we want to do with clay and then we can copy that into clay?

Fig. 4

Fig. 5

Fig. 6

It was noted that when children were drawing or using clay to represent themselves or their family, they were only making faces. Was this because we are identified by our facial characteristics and the rest of the body is not significant to the children? Or is it because they could only see their faces in the small round mirrors on the drawing table?

"Piaget (2000) proposed that children learn by actively constructing their own knowledge and creating their own theories. Children learn best when they are creating their own understanding of how things work. A child comes to know something by physically or mentally acting on it."[4]

We will make a big square first. Then inside the square we will put all the children. We have twelve children and three teachers. But we need everyone to help us.

It will be like the Rock Family I made before. (Fig. 2)

We can call it a class family. Our class is like a family.

We need to be kind to each other.

After the discussion the children began to draw the class family. Their drawings were a mix of lines, faces, and whole body.

You made the flower face. How did you know to make the petals? (Fig. 3)

I didn't. Yes you did. Look this one. It looks like a flower. Ortal has long hair so I will draw long hair for her. Then sometimes she puts her hair in a bun, so I will make a bun too. Ranjna has curly short hair so I made curly short hair for her and Miri has long hair. My hair is long too. I made 12 children and 3 teachers. (Fig. 4)

The teachers are like our parents because they look after us. I have fifteen people in my drawing. I made music in my drawing because I can hear relaxing music. I made windows in my drawing because we have windows in our class.

When the children began using clay, they all made small snakes and kept joining them to make a big square. (Fig. 5–6)

"Materials can become inventive languages only as children develop relationships with the materials—relationships that develop over an extended period of time when the materials are intentionally placed in the environment. Once children have developed a relationship with materials over time, they find new ways of using them. Children experiment, investigate, and form hypotheses about the materials' potential uses. In an inquiry-based learning environment, these hypotheses about materials' uses can then spur children on to make creative connections about their topic of inquiry."[5]

Children sometimes just need time. The time for belonging, being and becoming. We sometimes forget that children need the freedom to be themselves. They need to be given the time to grow and to get ready to share their learning or explore their environment. As long as we are there to support and scaffold the learning they will learn to appreciate their environment and their relationships. Relationships need time to flourish and time is magical.

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Kinder 3
Gimmel

Fairies make magic… they have magic power…

Look, I found treasure, the fairies brought it to our garden…

Having observed the children searching in the dirt at the bottom of our garden tree, every single morning, we were inspired to explore further to understand the children's world of fantasy. (Fig. 1)

In their book, Britt and McLachlan[1] talk about the importance of asking and knowing why. Our three year old children have been constructing theories of fairies and magic and searching for the **"relationships between what is known and what is possible"**.[2] In light of this wonder, we opened ourselves up to conversations with the children, searching for an understanding of their perspectives about fairies and magic.

Treasures come from fairies… from fairy land…

They spread the treasure when they fly…

Fairies like the dark, so they fly into our kinder at night-time…

This one [blue stone] came from the blue fairy…

People of all ages need time and space to make connections between all the little things that our larger ideas are built from. This is a story about how providing time and space helps to unfold children's thinking skills. With unspoken invitation they claimed complete ownership over their learning. (Fig. 2)

Research shows that cognitive development emphasises the sophistication of very young children; and the belief in fairies and other fantasy figures remains a prominent feature of childhood from about three to eight years of age.[3] Our children's desire to learn and to communicate their understanding invited us to provide them with different techniques and choice of resources to help them make their thinking visible.

Fig. 1

What could help us to increase our thinking?

Thinking with our hands, and through the organisation of objects; thinking through metaphorical environments, and an aesthetic that invites children to ask questions. We found ourselves in a process of circularity, of constant forming theories and interwinding thoughts.

These are beautiful and shiny… we can make things with them, just what we like…

Look at my pattern, you can count it…

My pattern looks like the sky, the rainbow in the sky…

One rainy morning provoked further thoughts:

The fairies are too scared to come out when the rain comes…

Maybe they live in a house or a cave…

They must live in a house because in the cave there is a lion…

Maybe they live in a beanstalk cause it's higher than upstairs and they won't hear the thunder goes boom boom everywhere…

The rain fairy came to put some treasure under the bark…

When there is no rain, the rain fairy stays in a very big box until the rain comes again…

In her 2010 research, Boerger studied young children's (3–5 years) beliefs about the characteristics of several fantasy figures. It was found that fairies and witches were all entities that are typically represented as similar to humans in appearance, but as having powers, such as the ability to fly, that ordinary humans lack. Furthermore, Boerger identified an **"ability that pre-schoolers had of reliably identifying these powers as requiring magic"**.[4]

Fairies can do rainbow magic, with lots of colours. It looks like a rainbow but it's not… fairies make magic…they sprinkle all the fairy glitter… (Fig. 3)

The children continued to collect small pieces of shiny 'treasure', enthusiastically found in our garden, almost every day. The collection was growing in the studio space indoors where the children interacted with the material and each other spontaneously, as well as in small group learning. (Fig. 4)

Collecting is an extension of play, it provides an escape into other worlds. Our children's interest in collecting 'treasures' enlightened our curiosity. We interpreted their conversations and social behaviour over time.

How do children cross over between the two worlds of reality and fantasy?

The fairies did not come today because they needed to go to a different fairy land to buy more fairy glitter…

Fairies are magic, I know that… so this treasure IS magic…

They got magic wand and then they sprinkle everything out of the wand, and that's how they make magic…

It's because the wand is real, so it's called REAL MAGIC…

The children were forming beliefs and detailed theories about their fantasy figures. As our investigation proceeded, a new turn occurred. The children were ready to communicate with the fairies.

We need to look after the treasure so the fairies can see we are good…

If we will ask them very nicely, they will protect us if there is an emergency…

We need to write the fairies a note, that's how it works…

Maybe we can give the fairies a present, and they will give us a present back like a teddy bear…

We can draw them a picture of a fairy with lots of feathers…

A book that we will wrap and write 'thank you fairies' on it…

Fig. 2


Fig. 3


Fig. 4

Fig. 5

Fig. 6

How can we foster social justice through the lens of magical imagination?

Giving back to others can provide a number of mental as well as physical benefits. In their research, Aknin, Hamlin and Dunn discussed the first evidence that giving to others makes young children happy, even happier than when they are receiving treats themselves. Furthermore, **"children derived more happiness when giving involved sacrificing their own resources".**[5]

The fairies can be happy if we will give them back the glitter…

Fairies love only one colour of the rainbow, it's called gold…

I want to give the butterflies back to the fairies, because they are gold and fairies love gold…

I am going back to fairyland to give these back, but we need to go on an airplane…

Can you tell my mum and dad where fairy land is? I 'didn't' been there before, and I want to go…

The language of children's conversations revealed a desire to give as a collective, and a commitment to probe deeper into each other's ideas. The pronoun 'we' was used often, as this learning touched the roots of children's social interaction. We decided to take the children to 'fairyland' in Fitzroy Gardens, to give the gold treasure back to the fairies.

The children prepared messages (in a drawing format) as well as the 'gold treasure', and left these by the Fairy Tree, for the fairies. (Fig. 5–6)

It feels fluffy to be in fairy land…

We had to speak not loudly so the fairies won't get scared…

The fairies were hiding inside the tree…

Following this experience, we invited the parents to write a thank you letter to their child from a fairy of their choice. On our return to school the following day, the children found the letters, which fascinated their minds and provoked many questions as well as a new direction for our investigation. (Fig. 7)

We can pretend this kinder is the fairies' house… we just need to use gold, pretend trees, grass and mountains…

We need some magic wands… and we can be the fairies…

It was not long before a few sticks have been improvised into magic wands, with a new theory in mind.

Let's make a stick-land…

Stick-land is connected to fairyland…

Sticks got eyes, and they sound like took took took…

If you listen to the noise, you can hear the sticks speak… (Fig. 8)

This investigation was about cultivating a sense of wonder, amazement, inquiry, discovery and creativity among the children and teachers together.

Magic, like smells, sounds and movement, belong to that invisible 'something' which children use to establish intense, inquisitive and empathic dialogues, even on their own. Why do children choose the unknown over the known? Can they tell the difference? Accompanying the children on this fascinating path of knowledge building, preserved the complexity of their viewpoints and their perceptions of magic itself. And for us, entering the children's fantasy world helped us fly into the world of possibilities in a way that we have never explored before.

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Fig. 7

Fig. 8

4 Year Old Kinder

Kinder 4 Aleph

Did you know that there are hearts at the bottom of trees?

This year's ELC umbrella idea of 'Magic' had us as teachers thinking, what is magic? And more importantly, what is magic to a child? Exploring the concept of magic can be intriguing and insightful, especially when considering it from a child's perspective.

Magic, in a general sense, often refers to a phenomena or events that appear to be inexplicable or beyond the boundaries of the natural world, invoking a sense of wonder and awe. Viewing the world through the eyes of a child can indeed be a transformative experience, as children often possess an innate ability to perceive the magic in everyday occurrences.[1] Children have a unique way of seeing the world with fresh eyes, unburdened by preconceived notions and rigid beliefs. As we grow older, we tend to become more accustomed to the world around us, and our sense of wonder may fade as we seek rational explanations for everything we encounter.

Jean Piaget's theory of cognitive development suggests that magical thinking is most prominent in children between the ages of two and seven where they strongly believe that their personal thoughts have a direct effect on the rest of the world.[2]

According to the Reggio Emilia philosophy, the environment is viewed as the 'third teacher'. This suggests that the physical space itself, along with the materials and resources within it, can have a significant impact on children's learning experiences. Natural materials, like pot plants, are incorporated into our learning space to foster a connection with nature and creates a more inviting and stimulating environment for the children. By surrounding children with elements of nature, teachers aim to encourage a sense of wonder and curiosity, promoting exploration and discovery. The children can learn best when they are actively engaged with their surroundings and have opportunities to interact with materials that reflect the natural world.[3] (Fig. 1)

Fig. 1

One child's question, *Did you know that there are hearts at the bottom of trees?*, posed during a spontaneous discussion amongst the children, gave us pause to wonder. How does thinking about nature evoke a sense of magic and how can this enhance a child's learning? This creative thinking invited further curiosity and exploration. The child's words were presented to the whole group the following day. Their response was immediate and exciting:

They do.

Because there is a seed and it grows.

The hearts are the seed.

The hearts are magical.

The dirt is magical. To make it bigger.

Everybody needs to take care of the trees.

Maybe the tree needs to grow with love heart seeds.

There's magic in the seeds.

Both the children and the teachers were inspired by the discussion and eager to explore the magic of nature. Our investigation was beginning to take shape. As children grow and learn, this enchanting perspective of magic evolves, and the connection between magic and nature remains a profound influence on their understanding of the world around them. The magic of nature nurtures their sense of curiosity, creativity, and appreciation for the wonders that surround them.[4] Our research question became clearer; how does understanding the intricacies of nature help children develop a deeper appreciation for the land?

To enhance our connection between home and school, family members were invited to join us in our room weekly. During one heart-warming visit from a child's grandfather, he shared with the children the story of his life on a farm and his passion for the art of harvesting. He proceeded with thoughtful discussions and then generously gifted us with an assortment of seeds, igniting our collective curiosity. The educators were intrigued by the children's keen interest in the seeds as they investigated them. Why were the children so captivated by the wonder of a seed, and what might it reveal about their own growth and learning process?

Each child embarked on a personal quest, carefully labelling their recycled containers, permeating them with a sense of ownership. With enthusiasm, they pondered the diverse array of five seed variations, selecting their chosen ones to nurture and cultivate. With care, they embraced the role of caretakers, nourishing their chosen seed with life – giving a cushioned bed, water and a sunny spot; eager to witness the magic that would soon unfold. (Fig. 2–3)

They're our babies.

We can't take them home yet.

Seeds can't move.

Maybe when they grow, they move.

As an ongoing provocation for the children, a nature table was created by the window, which held the children's garden beds.


Fig. 2


Fig. 3


Fig. 4


Fig. 5


Fig. 6

They were supported with an assortment of magnifying glasses to take a closer look, some literature on nature and the remaining unplanted seeds. In order to document this process, the children were equipped with a shared observation book. In here, they recorded daily observations through the use of pictures, photos and words transcribed by an adult. The observation book, used in a collaborative way, was a tool for the children to make their own learning visible. (Fig. 4–6)

The nature table brought a new enthusiasm to the room. Each morning we observed the children enter the classroom and run up to the table, with great excitement and without prompting, to observe and investigate any changes. As educators, we were excited by the children's excitement and engagement in the project, and the considered comments and questions that evolved.

I want mine to grow into a tree.

Put it outside and the rain will come.

Careful! The possum might eat it… because it's food.

They watched and observed the seeds growing. Theories were developing. One child suggested: *if you don't give them water, it will shrink.* Another child responded: *I think I know how they grow, It comes from inside the seeds – like it's actually inside the seed.* This led us to introduce a digital microscope into the room so the children could zoom in.

The digital microscope was set up in the corner of the studio, together with a light table, in order to support the children's deeper

Fig. 7

Fig. 8

Fig. 9

Fig. 10

learning. Up to three children were invited at a time to explore. They spent time caring, observing, discussing and drawing the features that most interested them. In one example, a child found love heart leaves. This intrigued the child and she began drawing. (Fig. 7–8)

Mine's not growing.

Maybe it needs some more love.

The plants energy connects to the human heart and it grows bigger.

Exploring the growth of a seed into a plant furthered the children's wonder about the magic of nature. Through nature, children were able to develop a deep connection and appreciation for the world around them; a part of a larger ecosystem.

Loris Malaguzzi, founder of Reggio approach, said that **"Teachers – like children – feel the need to grow in their competencies; they want to transform experiences into thoughts, thoughts into reflections, and reflections into new thoughts and new actions"**.[5]

If our investigation is looking at the magic of nature, then nature itself should be the provocation. This inspired us to set off with the children on a nature walk around the school grounds. We proceeded in such a way that the children were not shaped by the experience but were the ones who gave shape to it. We were equipped with iPads, clipboards and pencils ready to document the learning. Our first walk was a success. The children observed various leafy trees, a vegetable and herb garden and an open grassy area, enclosed with boulders, trees and bridges for the children to explore. (Fig. 9–10)

Loris Malaguzzi proclaimed that **"The art of research already exists in the hands of children acutely sensitive to the pleasure of surprise. The wonder of learning, of knowing, of understanding is one of the first fundamental sensations each human being expects from experiences faced alone or with others".**[6] The teachers also documented the children's discussions. In one observation, a small group of children gathered at the foot of the bridge.

Nature is everywhere one child said. The next child paused and responded, *We are nature.*

Upon returning to the classroom, we posed this as a question to the children.

Nature moves and we move.

Trees move and we move.

Because it starts from a seed, then a plant, then a tree.

We actually started as an egg, then babies, then we 2, then 3, then 4, then 5…

Nature eats and we eat.

We grow, nature grows.

Nature takes care of the land and we take care of nature.

We love nature because it takes care of us.

In this rich discussion, the children brought a lot of prior knowledge, but now for the first time they were linking the growth of their seeds to their own personal growth. It was clear that the provocation of observing nature allowed the children to see and interpret the magic of nature within themselves. We continued our nature walks on a weekly basis, each time with a new intention of visiting places that had become meaningful landmarks to our class community. On one walk the focus was on changes in the environment and another the focus was on the connection between what we saw and the words in our daily Acknowledgement of Country. Having a focus fosters a deeper connection between the children and the natural world, encouraging their sense of wonder, exploration, and care for the environment.[7]

The sustained interest in this investigation is evident on a daily basis in our room. At the time of writing this journal article, it has been four months since the initial discussion came about. Only yesterday, a child brought in 'banana water' to kinder – a mixture of water and banana skins that she thought would help fertilize the ground. It is clear that the children continue to see the magic in the world around them.

Or perhaps the magic is watching children discover in their own time and drawing upon their own conclusions about the world around them and within them. Magic is the growth of the idea. Everything starts as a seed and then grows.

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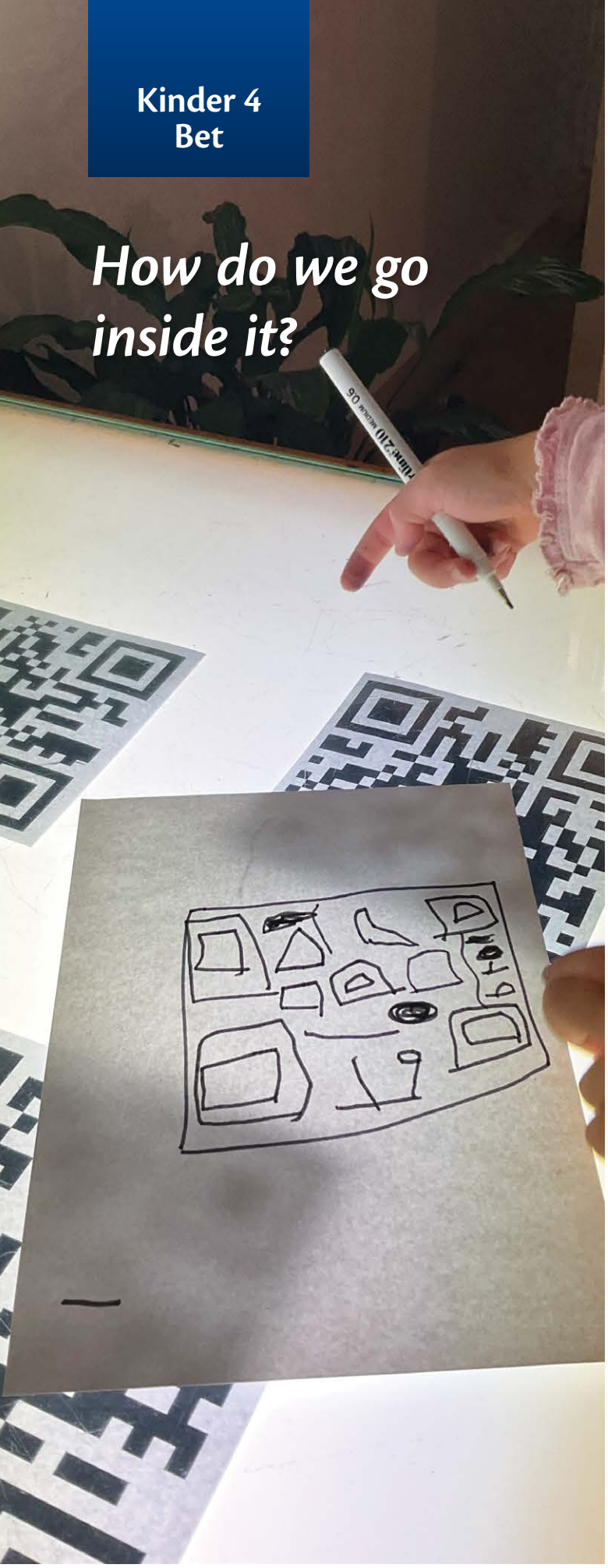
Kinder 4 Bet

How do we go inside it?



The wonder of childhood should include the 'magic' of engaging in the digital world. The digital world, which can be daunting for some early childhood educators, is where the future generations will be residing. In Kinder 4 Bet we have been exploring the digital world and how we can embed technology into our program. What are the wonders and what are the uses of technology and how can we develop this into the everyday language in our classroom?

When Loris Malaguzzi, founder and of the Reggio Emilia Approach to early childhood teaching and learning, discussed the concept of the hundred languages, did he envisage the inclusion of the digital world as a language?

"The child has a hundred languages and a hundred hundred hundred more."[1]

In 1984 Loris Malaguzzi was already discussing the connections of children and the digital world **"the meeting of Children and computers is in effect, the meeting of two intelligences"**.[2] The Reggio Emilia preschools were embracing simple digital technology in the 1980's. Now in 2023, could we bring this "language" to the fore and back into our classrooms with purpose? We encourage children to engage in experimenting with ideas, wonderings, social and language skills so why not using technology as a vehicle for this?

When we discuss technology we are talking about **"anything which allows us to get information, to communicate with each other, or to have an effect on the environment using electronic or digital equipment."**[3]

We began by looking at what digital equipment we could use and how we could embed them into the classroom. In Kinder 4 Bet we have access to iPads, projectors, computers and an interactive whiteboard and we use them all but we opted to focus on the iPad as **"the tool to support and enhance learning."**[4]

The next question was how much digital knowledge did the children have compared to the educators in the room? The Reggio Emilia Approach envisages the children as **"researchers into meaning, biologically predisposed to understand the world they live in"**.[5] The children's knowledge and predisposition is not being questioned. Rather one of the major hurdles for developing a digital language is the lack of confidence and knowledge the educators bring to the conversation.

Fig. 1

Fig. 2

Fig. 3

The children can be seen as digital natives, their identity is one who has grown up with technology.[6] The educators come from a different place; we are digital immigrants with reluctance to embrace technology mainly due to a lack of confidence and understanding of the many benefits and uses.

Our first purposeful digital encounter, in Kinder 4 Bet, was the QR code. Due to the Covid pandemic, the use of QR codes have become widely used… to check into venues, to log our movements in the community, just to mention a few. (Fig. 1)

What would the children, the digital natives, know about a QR code and how could this be used in the classroom as one of the one hundred languages? (Fig. 2)

A barcode to scan with your phone…

They are sort of square…

It's a ticket…

It does things you can see and find…

We recorded the children's voices and used a QR code to create a link to these recordings. The QR code was used as part of documenting the learning that was occurring in the classroom. The children were encouraged to scan the QR code and listen to their own voices.

If that is just paper how can it be possible to connect?

Paper cannot connect to the phone…

Maybe it's magic.

Magic is actually real…

When you beep them they go to the phone…

We, the educators, were using digital tools to document the children's work, making their work truly visible by interviewing the children; using their voices and their images to talk about their work. According to 'The Hundred Languages' documentation of the children's work **"is arguably the single most important educational strategy to emerge from the Reggio Emilia experience"**.[7] (Fig. 3)

Could we take these digital tools to the next level? Could we develop a digital language? A language being something the children use to construct concepts and to make sense of their world.

We discussed, as a class, how we could make this happen using iPads.

How do we go inside it?

We can make a movie, with the iPad, by using the movie in my brain…

You might think one in your brain and then you record it…

How can it record into the TV?

We can use our imagination.

We could make a space movie…

The challenge of making a space movie was accepted.

We could make a space ship and make windows and draw us in it.

You could build something, like a toy, and then you could record it.

In small groups we began planning rockets, drawing rockets, and building rockets. We designed space backgrounds and we painted backgrounds; with all of these learning journeys being documented using the QR code and digital media. The children could revisit their work and the broader community, including families, could access the QR codes to observe these journeys. (Fig. 4–5)

But as digital immigrants, the educators needed help! We needed to upskill to be able to make the movie. How could we do this? We consulted with a more experienced educator and called upon the e-Learning coordinator for the Early Learning Centre. The e-Learning

Fig. 4

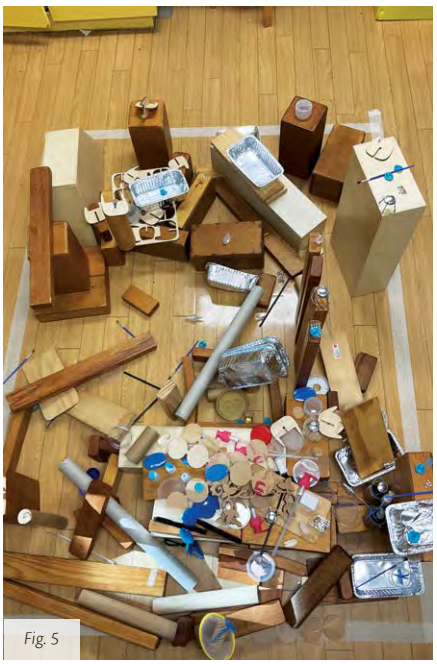


Fig. 5

Fig. 6

coordinator did not upskill the educators, but rather focused on the children. Working through Vygotsky's concept of scaffolding the children's learning by tapering off the instructions and allowing the children to be able to complete the tasks independently.[8]

The children, in small groups, were shown how to use the iPad application 'Puppet Pals', they then worked with each other to learn the required skills. The digital natives were then given the opportunity to show the digital immigrants how to use this application to make a movie, scaffolding the educators learning. (Fig. 6)

Together we have combined storytelling, mark making, loose part construction and digital literacy into making movies on the iPads, combining multiple of the "hundred languages" in the process. **"It is the shifting from one language to another, as well as their reciprocal interaction, that is the creation of consolidation of concepts."**[9]

We have used the images of the children, as well as their voices, to document their work by way of QR codes, making the processes visible, to the children, their parents and community, via digital language. Interweaving the digital presence through all the learning experiences occurring in the classroom.

Where to next? How can we further embed the digital into Kinder 4 Bet? Making it a tool that is an everyday language used to further our learning? A tool that is equally as important as using a fine liner pen and paper? Using technology does not necessarily transfer into a quality program, as educators we need to be able to use the tools effectively and with purpose.[10]

According to the children we needed to invite the parents to view their movie and we needed to include QR codes on the tickets because…

Then you come on a Monday you scan it. Then the guy gives you a place number. Then you sit on your chair…

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Kinder 4
Gimmel

How does time and space influence our creativity?

As we find ourselves in this fast-paced society where we are applauded for being 'busy', what are the implications on our personal growth? How do we buy back the time and space for our children to help shape the context and conditions with which creative thinking occurs?

We observed the children of Kinder 4 Gimmel, experiencing life to the full, engaging in everything the world has to offer, striving to move from one experience to the next. In contrast, the children leaned into their play as the week went on, delving deeper into their ideas and questions. We wondered if we could manufacture time and space to work for us, to create a moment in time where the children could just be, experiencing a state of flow.

Health Foundation Headspace describes 'flow state' as **"that sense of fluidity between your body and mind, where you are totally absorbed by and deeply focused on something, beyond the point of distraction. Time feels like it has slowed down and your senses are heightened."**[1]

The children created a space within our block corner as they worked collaboratively to combine a variety of materials to create their own construction of a rocket. It was through the choices of materials and the collective agreement of the build that saw the children explore new friendships to reach their own state of flow. As the children expressed the need to continue with their build, they revisited their building each day, adding and removing materials as they agreed on each new direction. It was the affordance of time and space that enabled the children to reach new directions and depth in their building.

"There is a fundamental difference between a child's and an adult's consideration of time."[2]

Could we apply our new theory to other investigations in the room? If instead of moving through experiences, we slowed down and took a step back and gave the children more time to explore, to revisit experiences and zoom in.

Reggio Emillia professor Carla Rinaldi writes, **"Is it legitimate today, when everything seems to go towards ever greater speed, in fact towards super-speed, to admire slowness, empty time, pauses?"**[3]

It was in our studio where we consciously created a space where the children were able to revisit their work each day, building upon their ideas and prior knowledge. Inspired by the abundance of flower drawings and paintings we started to explore the flowers brought in from the children's gardens and also from our garden at Kinder. (Fig. 1) Our studio became an exploratory space, an area of transformational creativity. We engaged in observational drawing of individual flowers, using black markers as we examined our flower with magnifying glasses. (Fig. 2–3)

We could find a flower and look inside it up close to see what's inside it.

Maybe we can use a telescope to see inside the flower up close.

Actually, telescopes only go to space so maybe binoculars. Binoculars help you to see things far away…

We then explored the flowers under the digital microscope, being able to project our findings onto the laptop, creating our own digital images. The children spent endless hours exploring, examining and revisiting the flowers in the studio. (Fig. 4–5)

"Together time, space and materials provide invitations to act."[4]

The children started to form their own questions and theories, bringing their ideas to the group to explore further.

You have to have the bloom bit to make a flower, if it doesn't have bloom bits it's not a flower it's just nectar on a stem.

I can see a part that looks like the flower… it's the daisy holder, it goes under the ground to hold it.

The sun is helping the flowers to not get dead and the flowers help themselves to not get dead. I'm not sure but I think they use a magical power to not get dead.

As a collective group the children zoomed in on the flowers looking close up at their similarities and differences. We wondered…

Do all flowers smell the same?

How do the flowers get their colour?

The flowers make their own colour with their own eyes and then the eyes disappear. The eyes come from the clouds. It only happens somewhere very, very, very far away from us. A person puts the eyes in the flowers when the flowers are sleeping. It's a flower person… he has special hands so he can put his hands in the flower. It's magic!

For languages to be heard, time and space is needed. The more languages we have to express ourselves, the more ways we can connect to the world.[5]

Could we look even closer at the flowers, looking piece by piece. We created a space in the studio to deconstruct the flowers. The children explored the flowers on a sensory level; tearing, ripping and grinding the flowers with a mortar and pestle. (Fig. 6)

This flower keeps all the smells and when it sees another flower it blows the smell into it, it actually gets taken by someone and they cook it and then they put it into flowers.

The smell comes in them from their colour… they have smell buds in them… they give out smell they are very small. You have to keep the smell buds upside down so the smell doesn't go everywhere.

I don't know how the smell got on my hands… I was just playing with the leaves… maybe it just broke off and came onto my hands… maybe I stepped on the leaf and smell came through my body and the smell now is on my hands and I smell like salad. It's in my blood…

Fig. 1

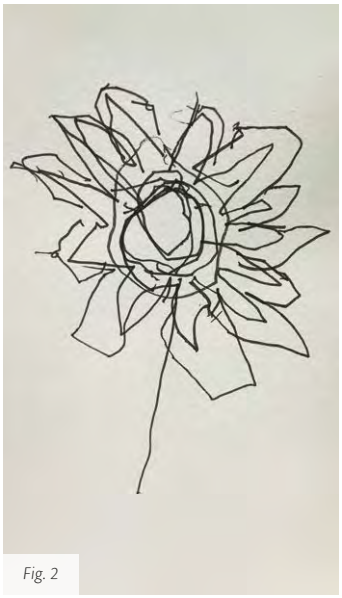

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Fig. 9

it went in my blood. The leaves have the power to make my hands smell like salad. (Fig. 7)

Prioritising time and space involves creating an environment that fosters exploration, creativity and a deep sense of connection with the world around them. It was through the affordance of time and space and the ongoing journey in the studio that the children were able to create their own flowers, bringing their unique sense of design and creativity.

Every flower doesn't come the same… the purple ones turn into yellow ones and the yellow ones turn into red ones.

It has two colours because the bug made it. Well first they get a leaf and then paint it… it's actually the bugs that make all the flowers.

Do flowers actually make people strong?

"It's the combination of unhurried and uninterrupted time, inviting spaces and materials that guides minds and hands, that invites creative thinking."[6]

What if we afforded not only ourselves but our children the opportunity of time and space to take a step back to find ourselves, our interests, our creativity? What would we find? Would our perspectives change? Would our path be the same or would we change focus; seeing things we have never seen before? If not for the step back, the slow down, perhaps we would see things we would have missed altogether by our endless need to live in fast forward. (Fig. 8–9)

Before the world growed… the flowers growed… then the grass and then the city and then the flowers all started to grow and come up through the cracks…

Actually, after the world was made the dinosaurs were made then the butterflies and then the people and then the mermaids… then the flowers bloomed.

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Prep

Prep Aleph

Launching and relaunching

When we as the ELC staff came up with our overarching theme for 2023 we spent much time thinking about where the investigation would go in our class. Whilst we might have our own thoughts in relation to this question, how do we ascertain what the children's real interests are when we begin with a broad topic?

"The words of children may at times seem strangely similar to our own, but they recall faraway and unknown worlds and meanings to which we as adults too often remain deaf and insensitive. Giving a voice to childhood thus means recognizing children's right to be the primary authors of their lives."[1]

When 'Magic' was chosen as the umbrella idea for this year, we thought about looking at the magic of nature and the magical world around us. With this in mind we chose books related to nature, animals, people and the planet to display in the classroom for the children to explore and discuss together in pairs and small groups. Mixed within these books were three books about the human body. What we discovered, by observing the children and listening to their conversations, was a fascination amongst almost all of them about how the body works. As a result we sourced many more books about the body for the children to share. Each time we gave them an opportunity to re-engage with these books they became totally engrossed in them, animatedly discussing what they could see in the pictures, what they thought was happening in the body and how amazing the human body is. **"As children communicate their mental images or theories to others, they also represent it to themselves. By moving from one language to another and one field of experience to another, and by reflecting on these shifts, children modify and enrich their theories."**[2] (Fig. 1–2)

When we breathe, the oxygen comes in and helps our body get healthy and strong and then we can do lots of things. The oxygen goes into our blood and the blood goes into all our veins and maybe that's what helps us do everything.

It is amazing that our spine is so strong that it is able to make our body stand up and move.

Fig. 1

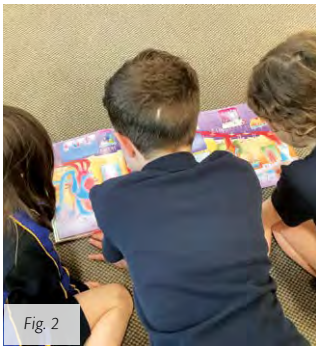

Fig. 2

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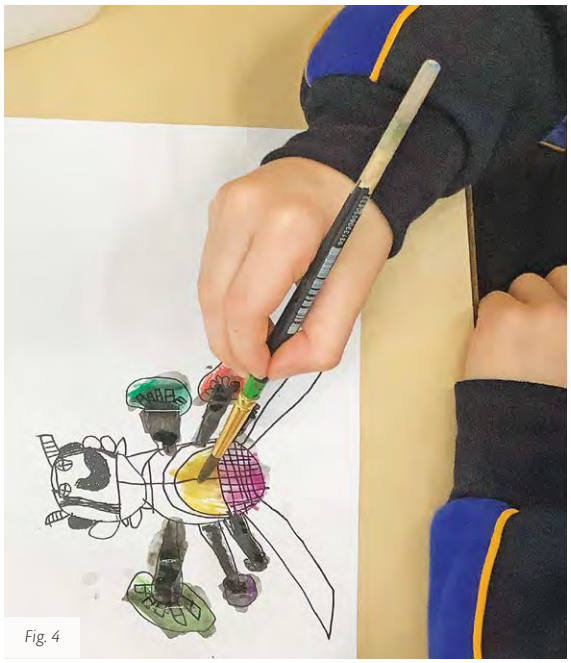

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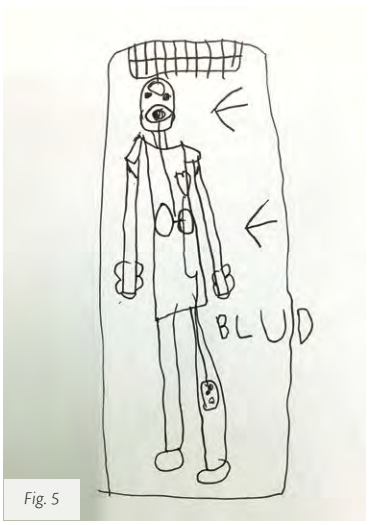

Fig. 5

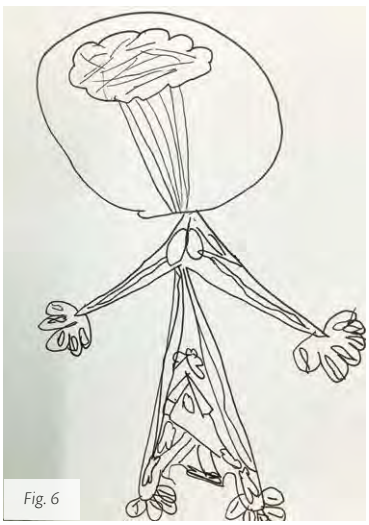

Fig. 6

Fig. 7

Fig. 8

We continued to listen to and observe the children closely to determine which avenue to pursue. Fortunately we were able to share the children's thoughts, conversations and drawings with our peers and discuss the options we faced during our seminar meetings. Having our peer's objectivity and their viewpoints helped us choose a focus for our investigation. As a result we asked the children to discuss and draw, what makes the body magical and what surprises them about their body?

Our body is magical because our spine can make us move, we can sit, bend our arms and walk.

When we eat we get energy and our body uses the food to give us energy to run and jump and think and that's what makes it magical.

It appeared at this point that the children were interested in the way different parts of the body moved. We thought about what sort of experiences we needed to provide for the children and looked closely at the way we needed to set up different spaces within the classroom to ensure that the children would have enough opportunities to create, test and refine their theories, as well as making sure that they had the time and experiences to collaboratively discuss their ideas and experiment to support a depth of thinking. (Fig. 3–6)

"The environment plays a foundational role in the process of making learning meaningful. When a teaching space is set up optimally, it facilitates and empowers children as they navigate this open-ended exploration of things that interest them. Children are seen as partners and collaborators in their own education and the environment stimulates, provokes and facilitates this learning."[3]

With this in mind, our research question became clear. We wondered, how does listening to children's thinking provide opportunities for launching and relaunching? As a response to this, different areas were set up within the classroom providing the children with a range of materials to further their understandings of the movement of the body. This included the use of wooden people and clay, transparencies of different areas of the body and interactive books where the children could move different body parts to gain an understanding of the body including; muscles, bones and organs. (Fig. 7–8)

As the children continued to explore the body further we as educators continued to research 'where to from here' by rereading the documentation of the children's discussions, highlighting comments that resonated with the majority of the group. We discovered that the children were changing or adjusting their thoughts and, at times, adding more complexity to their ideas and

Fig. 9

Fig. 10

theories based on their peers' contributions. We saw them working collaboratively to learn more, develop new skills and teach each other something they already knew.

"In the Reggio Emilia philosophy, the environment is seen as enabling children to explore their own interests and learn from their experiences. Teaching spaces are welcoming spaces that spark joy and a love of learning, and where children are encouraged to collaborate, communicate, create, experiment and explore."[4]

Once again by listening closely to the children and reviewing the documentation, we found that the children's focus had shifted once more. They were now fascinated by how amazing the body was at healing itself.

Our body is magical because when we are sick our body takes out the germs and makes us feel better.

When I am sick my body tells me to go to sleep. My body tells me that sleep will make me feel better. When I sleep I breath good air in my chest and I breathe the bad things out and when I wake up I feel better.

When I feel sick I have mostly bad germs but some good germs in it. When I cough a lot it tells me I'm sick. My body gets better when my body makes more white blood cells than bad germs and the white blood cells defeat the bad germs and then my body feels better.

Once again we looked carefully at the spaces within our classroom and spent time recreating and changing these spaces and resources to provide the children with new materials to enhance their curiosity and develop and test their theories and ideas. Researcher and writer on the Reggio Emilia approach, Stefania Giamminuti reminds us to listen to and observe the children and then create/recreate and change the environment to further their curiosity. She calls this 'Relaunching', as it enables the children to continue making sense of their world through their own interpretations.

"Teaching spaces and resources are changed regularly in response to the evolving needs and desires of children."[5]

To explore what captivated the children about germs and the way the body removed the germs and healed itself we asked the children, how germs got into the body and how the body got rid of the germs.

Germs are very small and you can't see them and they go into your body without you knowing.

When you breathe air, if there are germs in the air they go into your mouth and then into your tummy or your throat and that makes you sick and then you vomit and the germs come out in the vomit.

Your body tells you when you are sick because you get a sore throat or a sore head. You need to rest and sleep and take medicine to kill the germs. (Fig. 9–10)

As our investigation has evolved we have discovered the importance of listening to the children and then relaunching our investigation, playing close attention to the way we set up the environment and the resources we provide, so that the children can continue experimenting and testing their theories to make sense of their world. That is, the significance of the exchange between listening to the children and then providing the environment and opportunities so that this reciprocal relationship can continue occurring.

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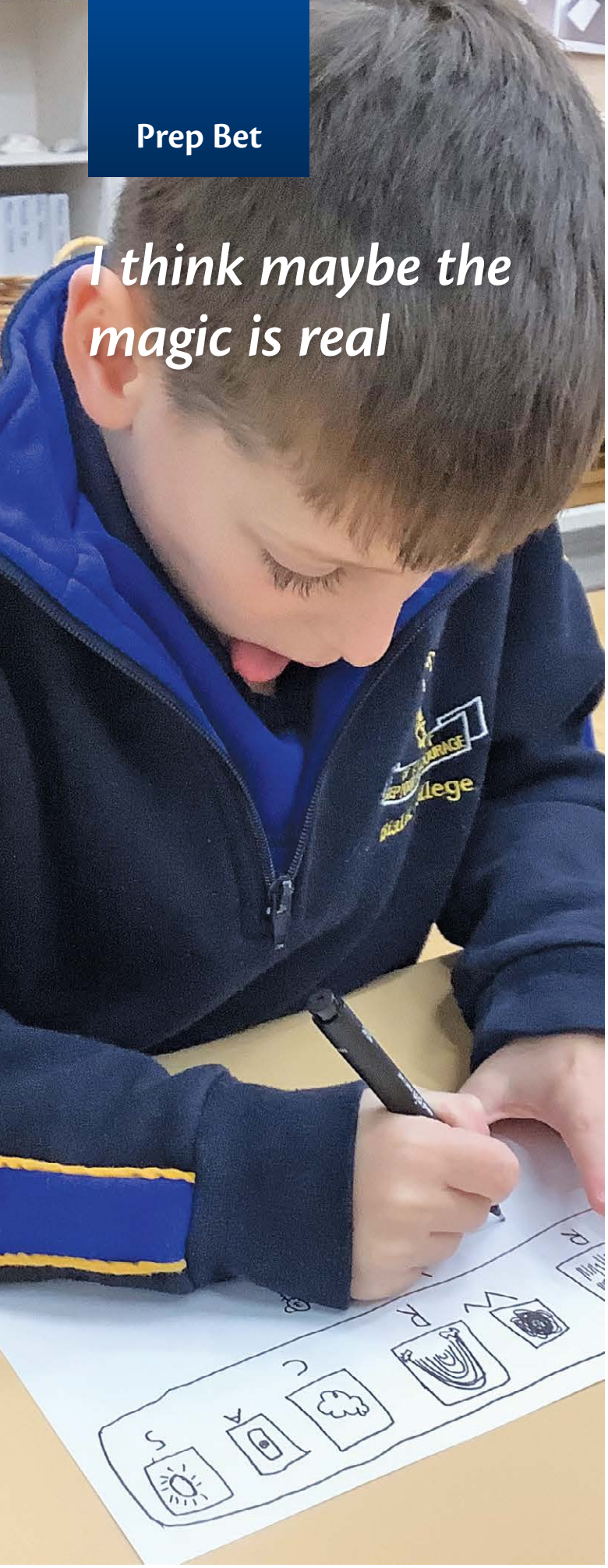

Prep Bet

I think maybe the magic is real

At the beginning of the year, whilst exploring the classroom, one child created a spaceship using plastic shapes on a mirror. His thoughts were documented in writing on the mirror.

He noted excitedly; *When you write on a mirror it is like someone is inside the mirror; it looks like someone is writing under, it looks double.* Sensing his excitement, the children's curiosity led them to gather around, looking on with interest at what had occurred. The children were provided with time to discuss and draw their observations, and as they shared their theories, the concept of 'reflection' kept reoccurring.

I think it is happening because there are powerful beams of sunlight that are reflecting off, so it is making a projection that is at the bottom as well.

It reflects from the sunlight on the mirror.

What makes you say this?

Because mirrors reflect things, and it can reflect sunlight onto the mirror.

Something that reflects itself to something else. It reflects back to the thing that you are looking at.

If you put a book on the mirror, you can see double because it makes it for small children that the top is the floor, and the floor is the top. It is fun, it is magic. It is in the air.

I think maybe the magic is real. I feel like there may be an alien that comes out every night to look at Jacob's spaceship.

On reviewing the children's discussions and explorations it was evident that their thinking was both scientific and the imaginative.

Dr C Britt Early Childhood lecturer at Macquarie University believes, **"Learning to wonder, wondering out loud, and wondering together are powerful ways in which curiosity and a desire to research phenomena [e.g., reflection] can be encouraged."**[1]

An overhead projector with an image involving light, colour and a mirror image was set up in the studio to further explore the children's theories on reflection. Using the Project Zero thinking routine See, Think, Wonder.[2] provided the children with time to investigate this concept more deeply. (Fig. 1–2)

I can see an endless pathway.

I think it looks like doors behind each one that you can see the other door behind each one.

I wonder how the reflection is coming from the machine to the wall?

That's easy I know how it is projected. This picture goes up to this mirror and then it projects onto the wall. (Fig. 3)

Fig. 1

Fig. 2

I wonder how rainbows reflect off from the sun? I think it is the same as this reflection. They both reflect off the mirror and the light.

Through these conversations the children's intrigue in rainbows became apparent.

One child asked, *I wonder, how does it make a rainbow?*

The children were given the opportunity to discuss and draw their theories of how they thought rainbows are created. (Fig. 4–5)

I wonder why rainbows don't have black, white, grey and brown?

The sun projects onto a mirror or window and the rain projects onto the sun and it creates a rainbow. The sun and the rain mixed together and instead of projecting onto a mirror or the window it projects onto the sky.

Their interest now lay in the reflection of the colours in rainbows and how this occurred.

As conversations continued in our class, it was clear that the children's thinking had extended beyond the classroom environment and that their own life experiences were shining through their explorations.

I wonder if rainbows come out at night?

The sun brings out the colours in the sky because its light enough to show all of the colours. If there's no sun there are no colours, The clouds bring out the rain and the rain is blue.

You need to put acid with fire into water, and then rain and clouds and the sun. The fire has colours in it. The sun mixes with the clouds to make colourful clouds and you need the leprechauns to make the rainbow appear with all the colours.

The children's interest continued to follow the magic and the science in their quest to gain understanding.

This made us wonder if the introduction of a time-lapse of a rainbow forming, would provoke more scientific thinking or generate interest in the magic of a rainbow, extending their imagination.

The rainbow time-lapse intrigued the children and sparked new wonderings and enhancements of their imagination.

I wonder if we can see all the colours of the rainbow if it's only a short rainbow? Do we always see all the colours?

Once I made a picture of the sun and I took it outside and the sun came out. When it saw the picture, I threw water and a rainbow came in my garden. When I threw the water when the sun was shining on my picture, I thought I would like to slide down the rainbow, but I thought it would be too slippery. Then I got my sticky shoes and I slid down the rainbow.

Rainbows are made from leprechaun kisses because they are magical, and he protects a pot of gold.

By providing the children with time and opportunities to follow their curiosity and investigate their own theories using mirrors,

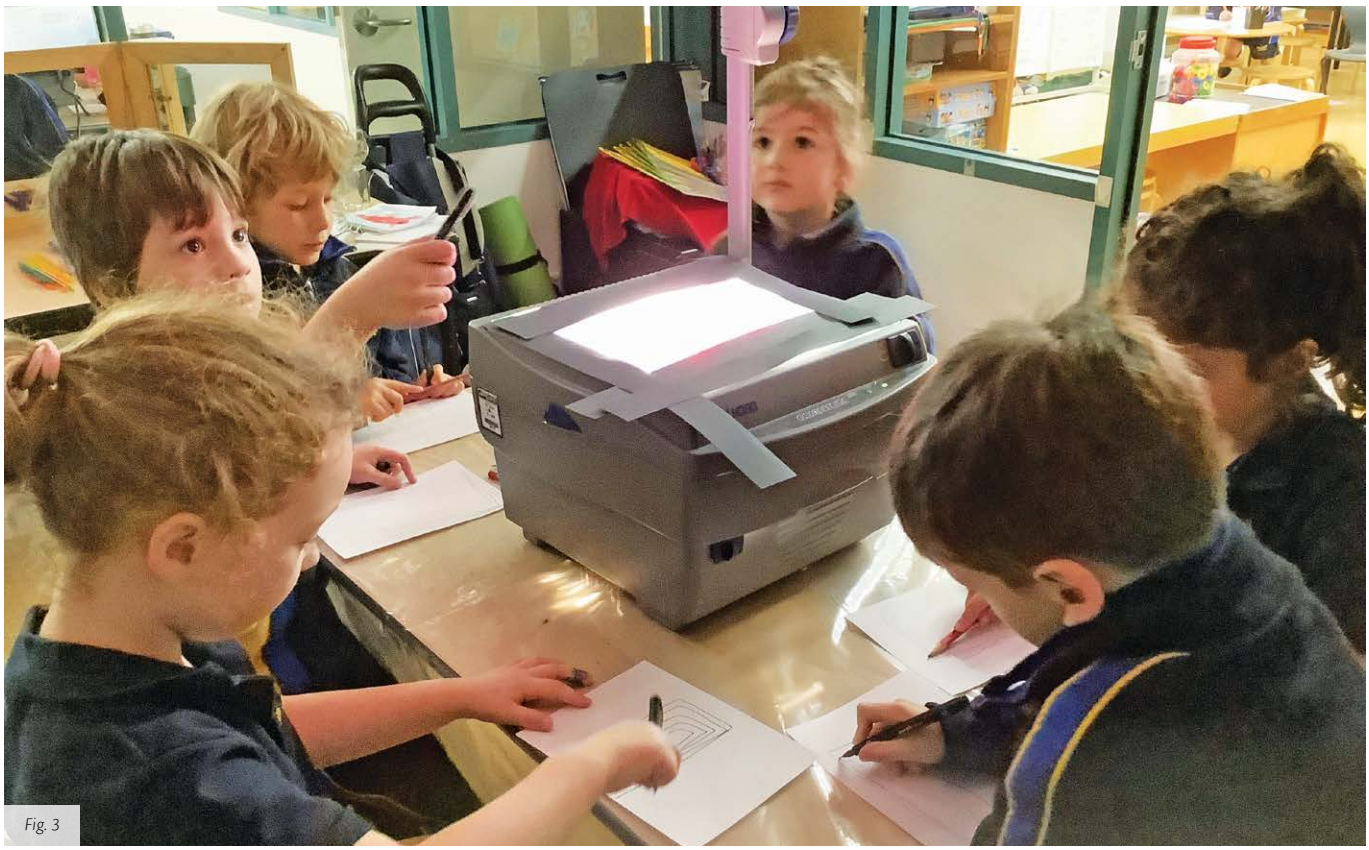

Fig. 3

water, light and reflection, they were able to explore and share their understandings towards making sense of the world around them.

Our children showed us that science and magic undoubtably raise interest in the unknown and the desire to uncover the invisible. The opportunities to explore and theorise about reflections and rainbows certainly provided the children the experience to do this. As the children continue to explore the magic of science and nature and the world around them it is hoped that their theories and curiosity continue to support them as they search for the invisible.

Fig. 4

Fig. 5

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Prep
Gimmel

When are we truly listening?

A conch shell, a fascinating piece of nature that immediately inspired a deep desire to learn and listen.

As 2023 began, it was time to meet an excited group of children who were about to embark on their first year of formal schooling. With a new umbrella idea of 'Magic' voted on by the teaching staff at the end of 2022, we as teachers began the year wondering where this concept would take us.

As a class, connections with each other and the environment quickly began to grow. The children would bring items from their personal lives to share with their classmates. It was through this sharing that a conch shell entered our classroom and the magic of nature and the world around us began. The well-known Irish poet WB Yates states, **"The world is full of magic things, patiently waiting for our senses to grow sharper."**[1]

The children looked at the shell turning it around in their hands, when one of the children put the shell to their ear. (Fig. 1)

I think when you put the shell to your ear it tells the story of when the shell went on land.

The reaction of the class was one of both excitement and wonder. The conch shell provided us with many opportunities to further investigate the children's thoughts and beliefs about what they were hearing. What story was the conch shell telling us?

Fig. 1

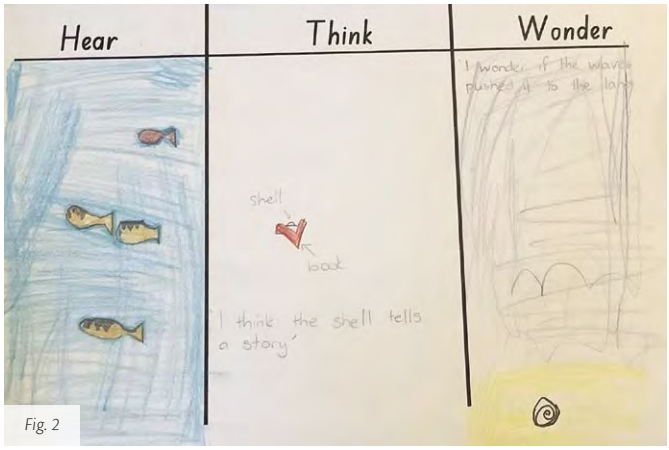

Fig. 2

Trying to sharpen our senses the children spent time listening to the shell. What could they hear? Using a modified version of the Project Zero thinking routine 'See, Think, Wonder', the children completed a 'Hear, Think, Wonder' routine.[2] (Fig. 2) This routine helps to unpack a concept for deeper inquiry. The children heard different sounds within the shell and documented these sounds in drawings. (Fig. 3–4)

I've drawn the sky and rain and the thunder. I drew the trees because I heard some wind, and I drew the sea because I hear some waves.

The children continued to discuss and share what they were hearing within the shell. As the conversations developed the children began to wonder how the sound got inside the shell. Initially the children found this hard to articulate and needed time to think about how what they heard was in the shell.

I think it is because when it was in the water it caught the sound inside the shell. Then you listen to it you can hear the sound.

Maybe because the waves are near the waves, so the water gets into the shells.

I think the shell got water in them because they were on the sand and the water got in them.

Trying to delve deeper into the children's thoughts and understanding we used another Project Zero thinking routine: 'Think, Puzzle, Explore'.[3] Using the thinking routine, the children were able to use pictures along with words to help explain their understandings.

I think the shell went down very deep into the ocean and after many days it came back to the top of the ocean and the sound was there.

The sound had a little bit of breath in it and when it saw the shell it got into it and went down the bottom.

At a crossroad with our investigation, we were torn which way to go. Do we look more scientifically at how and why we hear sounds within a conch shell or was it the art of listening that was really at the core of this investigation? Conversations with colleagues reminded us to be mindful of not stifling the children's belief in magic and being conscious of skills that would support their learning. A child psychologist Maureen Healy reinforced this when she stated, **"A child's belief in magic can contribute to the development of a playful mindset and a creative energy."**[4]

Experiences, observations and documentations highlighted that the children were fascinated with listening, and this gave us our new direction. We wondered how does one specifically investigate listening? What does listening really mean? How do we know what listening looks like and when are we truly listening? Does listening help us see beyond the physical? Thoughtful provocations and literature were set up and used within the classroom to explore and continue to build on the concept of listening.

The Victorian Aboriginal Child Care Agency states, **"A special quality, a unique gift of Aboriginal people is inner deep listening and quiet still awareness – this is Dadirri."**[5]

With this in mind, the children were provided with the opportunities to listen to Little Yarn podcasts, which explore the diverse languages, stories and countries of Indigenous Australia.[6] The children listened to a song by Gamilaroi woman, musician and journalist Loren Ryan. Through this experience the children discovered that listening is not only done with your ears. You can listen with your heart and listen with your eyes. The children drew


Fig. 3


Fig. 4

Fig. 5


Fig. 6


Fig. 8


Fig. 7

and shared what they thought listening with their eyes looked like and meant to them. (Fig. 5)

Listening with my eyes means looking at stuff really thoroughly.

Listening with my eyes is picturing it in my mind.

As the children were provided opportunities to stop in the moment to listen and reflect, the children started to realise there was more to hear than those immediate things around them and these things impacted on how they were feeling. This was evident in their conversations and reflective drawings.

Reggio Emilia educator, Carla Rinaldi believes that listening must be the basis of the learning relationship that teachers seek to form with students. Listening conveys a sense of respect for and an interest in the learner's contributions. When students feel this respect, they are more willing to share their thinking and put forth their ideas.[7] She states, **"Listening means giving value to others, being open to them and what they have to say. Listening legitimizes the other person's point of view, there by enriching both the listener and speaker."**[8]

Listening within our classroom; between teachers and students and between students and students was indeed enabling the children to make connections between shared thoughts and to scaffold their knowledge based on the thoughts of others.

With listening becoming more of an important focus within our day-to-day classroom. The children started to share observations of when they felt listening was really occurring.

While taking photos one child commented, *This photo shows really good listening.* (Fig. 6)

Following this we posed the question to the children, **What might this look like?**

It could look like us really focusing on the teacher and focusing on what we are doing and focusing on what the teacher is teaching us.

She was doing good eye contact with me and she didn't say anything. She was listening with her eyes, heart and head.

The children used an old dial telephone to continue to have conversations and hear what they wanted to hear. In just a short amount of time the phone was used to call the wind, the Head of the ELC, the school principal and their parents. (Fig. 7–8) The children showed fascination and wonder as their conversations allowed for their imaginations to develop. The children engaged in conversations with each other about who they were calling, why they were calling and shared the answers they heard albeit from their imagination. The children were continuing to discover that listening can take on many forms.

The concept of listening is visible in different aspects of the children's learning. They are noticing it in their everyday interactions. As we continue to listen to the voices of the children and learn about the importance of truly listening, we wonder where the magic will take us next. Magic is in our classrooms every day we just need to be open to listening and, subsequently, seeing what is truly before us.

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Jewish Studies

The power of imagination is magical

Every year, in Jewish Studies, our children at Bialik College learn about 'The seven days of the Creation of the World' in Prep and 'The Garden of Eden' (Gan Eden) in Year One.[1]

The umbrella idea of the ELC each year encourages us to view these phenomena with a different lens. In 2021 our concept was 'Beginnings' and of course our focus was on the creation of the world. Other years yielded subjects like 'Stories', – what better a story than one from the Bible, especially 'The Creation'. Last year, our common theme was 'Connection'.

What was our focus going to be this year?

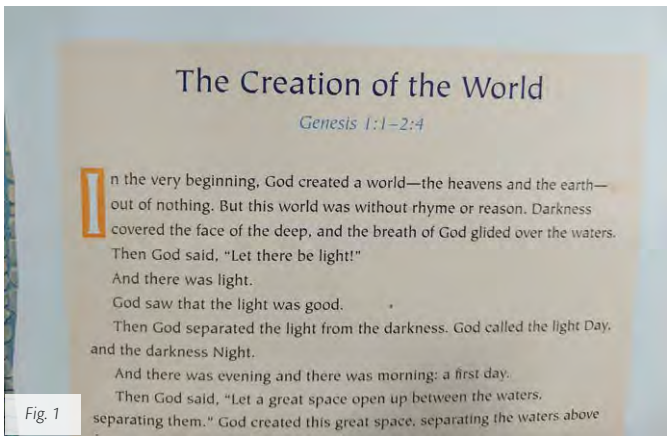
Our big idea for 2023 is 'Magic'. Haven't we done this before in some form or another?

The stories from the Torah are magical; every time you read them you learn something new and that in itself is magical. One of our team suggested we focus on the 'Magic of imagination'. We breathed a sigh of relief, we had a new idea as our focus, from another perspective. We decided that this time we would not show the children any photos or videos of The Creation or of Gan Eden. We would allow the children to use their imagination to allow themselves to formulate their own ideas of what the narrative might look like.

We have noticed that at this age (five to seven years old), children often engage in imaginative or pretend play. They use their own imagination to create scenarios, act out roles, and explore different situations. What better platform for them to do this than from the stories of the Torah? (Fig. 1)

We explained that in the days when God created the world there were no cameras, hence their own imaginative pictures were as accurate as those of anyone else.

Physicist Albert Einstein said: **"Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world, stimulating progress, giving birth to evolution. It is, strictly speaking, a real factor in scientific research."**[2]



The Creation of the World

Genesis 1:1–2:4

In the very beginning, God created a world—the heavens and the earth—out of nothing. But this world was without rhyme or reason. Darkness covered the face of the deep, and the breath of God glided over the waters.

Then God said, "Let there be light!"

And there was light.

God saw that the light was good.

Then God separated the light from the darkness. God called the light Day, and the darkness Night.

And there was evening and there was morning: a first day.

Then God said, "Let a great space open up between the waters, separating them." God created this great space, separating the waters above

Fig. 1

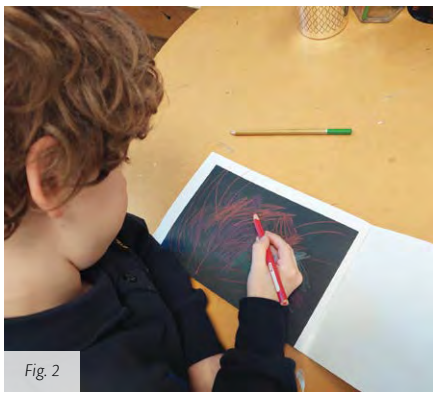


Fig. 2

Fig. 3

Fig. 4

LET THE MAGIC BEGIN!!

In order to demonstrate the concept of 'tohu va'vohu' (chaos) before the world was created, we the teachers turned our Prep classrooms into a huge mess, with chairs turned upside down and games and pencils randomly thrown on the floor. (Fig. 2)

Enter, the children.

Who did this? It was you, I saw you do this.

The children started blaming each other and their teachers, until one child said:

I think it was an earthquake. (There had been a slight earthquake in Melbourne a few days prior.)

The amazing thing with this group of children was that all the while that they were wondering who did this, they were tidying up and creating order again without having been told to do so by their teachers.

Eventually the teachers admitted to creating this 'balagan' (mess) and asked the children why they thought that it was their teachers that had created the mess? A few children, after they had been given some clues said:

I know! You were trying to show us that the world was in a mess before God began creating some kind of order.

And so we spoke about how the children were feeling when they entered the class to find this mess.

I felt confused. What is happening here?

I felt sad.

My mum gets very sad when our house is messy and sometimes she even shouts at dad 'cos his socks are on the floor.

Maybe that's how God felt when he saw that the world was in a mess. So He tidied up and had a beautiful world. Only then could God carry on making the world.

I think that this is just a story – I believe in 'The Big Bang'.

I believe that Bungil, the eagle created things before people believed in God.

But I don't think that God is real.

But He is real because He created the whole world.

Anyway I think that the world was messy because Aliens were throwing trash everywhere.

No, a meteor made the world messy, it crashed into the world.

What was interesting was the fact that the children were exploring different situations in an incredibly respectful way. They listened to each other and expressed their thoughts and ideas in an engaging manner. They drew the 'balagan' in the classroom on one page and on another page, the 'balagan' of the world as they saw it before The Creation. (Fig. 3)

The story continued, which in turn sparked more imaginative discussion. On day number one of The Creation, God created light which He called day and darkness which He called night. **How can there have been light when the sun had not yet been created?** The children's imagination was fired.

Maybe God had a torch, or he could have lit a candle.

But torches hadn't yet been invented and there wasn't any candles then.

Maybe it was like the dimmer that we have in our lounge, you can make it less light and more light.

Maybe God is the light. (Fig. 4)

What makes you say that?

God is the whole world.

The children were feeling 'the magic' and were expressing themselves with clarity and imagination.

On day two, we read that God had pushed the sea to one side and the sky to the other side and was creating some kind of order. We also discussed that there is water in sky too. How come?

My mum told me that the moisture goes from the sea up into the sky into the clouds and that when the clouds are very full, they will burst and then we have raindrops.

So the sea never dries up and the sky is sometimes dry and sometimes wet.

Some of the children were familiar with the scientific facts and some were still trying to fathom how the world works. It was at this point that we could see how the magic of imagination

contributes significantly to children's cognitive development. It enables them to sequence events, stimulates their curiosity and expands their knowledge about the world around them. It was clear to us that the word 'Magic' could well be used as an adjective describing wonder and enchantment. The enchantment was clearly visible in our classroom.

On day three of The Creation, God had pushed the sea to one side and the land to another side. We provided the class with one big piece of paper, blue cellophane, sand, dirt, leaves and paper and colours. We asked them to depict day three with these materials.

The children first had a discussion about how they would like their day three to look like and then they got to work; organising, collaborating and negotiating who would do what. The teacher stood back and allowed the children the independence to come up with their creation. It was certainly a 'magical' moment seeing how involved each child was and each class came up with a spectacular creation. (Fig. 5)

Howie Dietcher, Professor at the Hebrew University of Jerusalem, talks about gaps in Bible stories. He argues that the Torah gives us many opportunities to use our imagination. We read parts of what God did, what man did, but with not too much detail. Over the centuries, many Jewish scholars and Rabbis have created their own interpretations in order to fill in the gaps of the Torah. For example, reading about what God created in one day, we have been led to ask, how was time determined in the beginning? Was one day 24 hours, or one month or even one year?[3]

The children in Year One came up with their own interpretations about Gan Eden and for us as teachers, they created magical moments.

They asked many questions:

How come was Adam the first man if chimpanzees were first and Man comes from chimpanzees?

Yes, but chimpanzees were created a day before Adam was.

It had to take thousands of years for man to develop from chimpanzees, but in this story it says that man was created the day after the big animals, like the chimpanzees? Does this even make sense?

Does the Torah tell us exactly how long one day was?

It could have been any amount of time. Watches weren't invented yet.

Yes but God had invented the earth and it takes one day for the earth to go around the sun, so a whole day then must have been the same as a whole day now.

Maybe Adam looked like a chimp. We don't have a photo of him because there were no cameras then.

The children drew their own interpretations of how they pictured the first man, Adam. (Fig. 6)

The next question we asked was, **what clues in the Torah do we have about the difference between Adam and the animals?** We read from the Torah text that **"God blew into Adam's nostrils the breath of life."**[4]

Man and animals are almost the same, but man has a bigger brain. My dog knows about ten commands, I know so much more, that is the difference.

God was clever. And his cleverness was blown into Adam. Now Adam was clever too and had a big brain.

It is interesting to note that at this age the children are still egocentric. Their world revolves around themselves and their own experiences. Psychologist Jean Piaget calls this the 'preoperational stage'. This stage is usually from two to seven years old. **"In the preoperational stage, children use symbols to represent words, images and ideas, which is why children in this stage engage in pretend play."**[5]

During our ongoing discussion of Gan Eden, we asked the students to close their eyes and to imagine their own picture of Gan Eden. We reminded the students to include the climatic paradise, that a mist rose from the ground keeping the plants and trees watered.

Fig. 5

Fig. 6

Bialik College

Also that there was no conflict as man and animals both ate plants and fruit for food and there was perfect peace. We asked the students how they would view a perfect garden. What colours and symbols would they associate with Gan Eden, a perfect place, paradise? We made sure that the children understood the concept of 'symbol' and they used the routine from the Cultures of Thinking philosophy, 'Colour, Symbol, Image' and created images and colours as well as a symbol for Gan Eden. The ability to use symbols demonstrates the power of the children's imagination and helps foster cognitive development. (Fig. 7)

We discussed Adam's role in the Garden of Eden. In Bereshit it is written that Adam named all the animals. Adam's responsibilities in Gan Eden were not spelt out in the Bible. The story in the Bible briefly mentions Adam's activities in the garden but does not explain his experiences. Here again we find this 'gap'. The children were left to imagine the games Adam played and what adventures he had as well as the discoveries he made. They imagined the joy and wonder that he felt, the curiosity he had about his surroundings and the relationship he had with the animals.

Maybe Adam played 'hide and seek' with the animals.

Adam had to play with the animals. He didn't have a human friend yet. He could have been lonely.

I think that Adam loved the animals in Gan Eden.

This encouraged the children to empathise with the characters in the story. By acknowledging these gaps in the story, children were invited to use their imagination, to fill in the details and to explore their own interpretations of the events. From our discussion about Adam's responsibilities in the Garden of Eden, the children made a list in their Torah Books: responsibilities to the world, responsibilities at home, responsibilities at school and responsibilities to myself. (Fig. 8)

We asked the children what they thought Adam's responsibilities might have been.

Adam would have to name so many animals.

He would help the animals that couldn't reach the fruit to get it for them.

He had to make sure that the animals all stayed in their own area, just in case they would attack another animal.

The animals would help Adam too. The horses and the elephants would let him ride on their backs.

The magic of imagination in children of this age is a wondrous force, which creates fantastic stories and unlocks endless possibilities.

We believe that through imaginative play, storytelling and symbolic representation, children learn to think creatively, problem solve and navigate the complexities of the world around them. Their imaginations allow them to explore and understand their dreams and fears. Imagination creates a new platform of learning. It encourages questions to be asked and to seek answers. As educators, it is our role to nurture the magic of imagination in

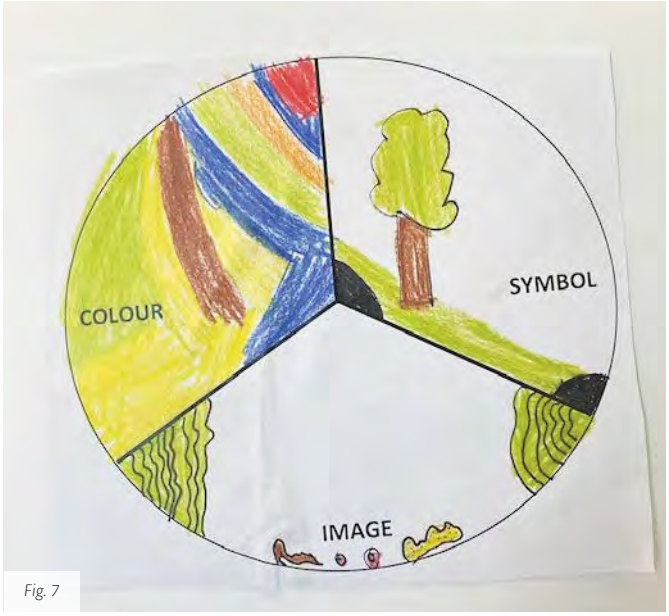


Fig. 7

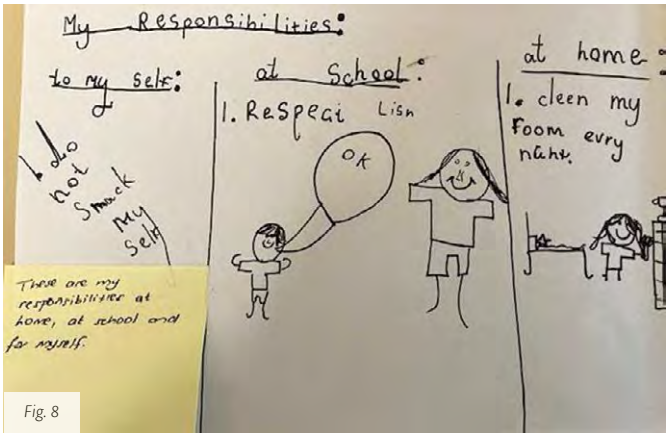


Fig. 8

their young minds as well as to empower children to become individuals who can shape the world with their ideas and dreams.

It was clear to us, the teachers, from all the discussions that we had with the children that we don't need to create miracles, but that we can create moments of MAGIC! Our learning is by no means complete, we are always adding new facts, stories and the imaginations of the children are endless and different and fun. Surely this too, is MAGIC?

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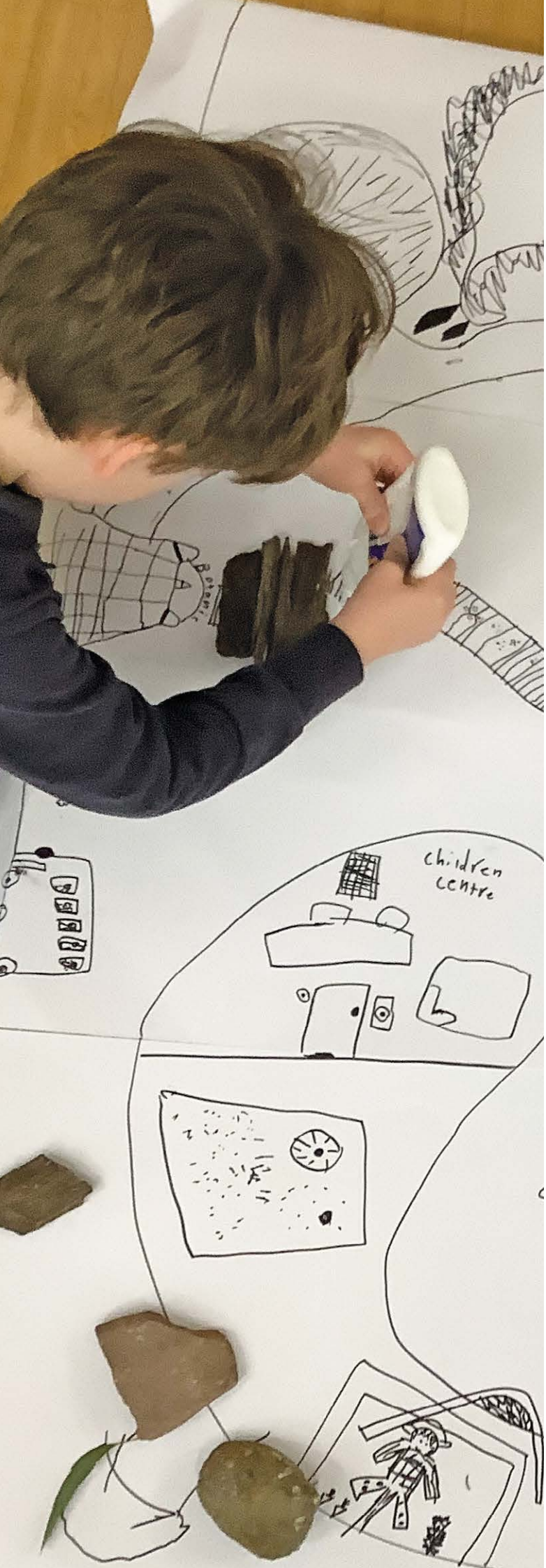

Year 1

Year 1
Aleph

Seeing the hidden magic

"I'm always seeing the world with magic eyes." he said. "I'm exploding with childish wonder…"[1]

Contemporary author Gabrielle Zevin's words from her book, Tomorrow, and Tomorrow, and Tomorrow, reminded us of the 'Magic Eye', a phenomenon from the 1990s and its potential as a provocation for introducing our children to the idea of seeing beyond the literal.[2] This initial provocation sparked curiosity and interest, even before the children knew what was hidden within. (Fig. 1)

Their experience and exploration of creativity and imagination in Prep fuelled their learning and we had a strong feeling that this provocation would hold their interest, but we were unsure of where it would lead.

The children showed a curiosity in an initial image of the 'Magic Eye' and the Project Zero Thinking routine 'See Think Wonder' was used to unpack their thinking.[3] The children could confidently identify what they thought they could see, such as colours, shapes and patterns, but also made connections to the notion of looking at what objects the image resembled.

I see walls covered with pink, yellow, purple, hot pink and black.

I think there are a lots of different pictures in it and people see different things in it.

I think it looks like Spring. It looks like flowers.

I think it looks like when the weather data comes in and comes out. When it goes in it looks like lots of particle dots.

What became apparent from the documentation was the way in which the children jumped between using the term 'looking' and 'seeing'. We couldn't help but wonder what the difference between seeing and looking is and how the children perceived this difference in more detail.

The difference between looking and seeing… when you are looking you stare at something but when you are seeing you see things.

When you are seeing something, you are just seeing something… when you are looking at something… you are looking closely.

Fig. 1

Fig. 2


Fig. 3


Fig. 4

When you are looking, you are looking for something but when you are seeing, you just see something and take a picture and look closely and then take a picture if you want.

After time and opportunities to explore the literal 'Magic Eye' images, the children learnt how to see the hidden pictures within.

It is magic because when they make the patterns, they are trying to make an invisible picture.

You have to use your eyes to see the magic.

This seemed like an authentic connection to our ELC 2023 umbrella idea of 'Magic'. Could our children's learning and thinking be enhanced with encouragement to use their eyes to see the hidden magic in the world around them?

Our research question became clearer. How can we give the children opportunities to look and see (with their eyes) whilst also exploring the role that personal experience has on one's perspective?

Gabrielle Zevin continues to write, **"How many times can you look at something and know everyone around you is seeing the same thing or at the very least that the brain and eyes are responding to the same phenomenon? How much proof do you ever have that we're all in the same world?"**[4]

The children engaged in a diverse range of experiences to explore perspective. They were given opportunities to draw live models, wooden models and objects outside from multiple perspectives. (Fig. 2–3) They were asked to reflect on their observations and experiences. Following their drawings, the children became accustomed to going on a 'Gallery Walk' and shared thoughtful insights about what they noticed in their detailed pictures. They observed that when people look at the same object from different angles, they see different things.

This made us wonder what would happen when the children looked at an object from the same perspective.

Since people aren't the exact same people, their eyes are different. Even if they are in the exact same spot, they might not see the same.

If you change eyes, you will still see the same because it is in your body. If someone else looked at it then it will look different because they are not you.

You may be in the same spot, but the [object] might be on a different side.

None of us see the same. We will see the box, it won't be exactly the same because we all have different eye sight.

The cubist painting, 'Weeping Woman' by Pablo Picasso in 1937, inspired the next phase of our investigation. The Cubist Art Movement began at the turn of the 20th century where progressive artists such as Pablo Picasso and Georges Braque pushed the boundaries of perspective in painting. **"Their motifs are not only portrayed from various perspectives simultaneously but also fragmented into smaller forms which let them become set pieces of a physical whole."**[5]

These works were presented in workshops and independent learning time using the added elements of projection and light to engage and spark both curiosity and creativity. Educators from Reggio Emilia and Harvard University Cultures of Thinking Project regularly refer to the importance of 'disrupting' the space and adding incongruent elements to engage learners.[6]

The children were captivated by this art form and their observations and replications of the works enabled them to understand the messages the artists were trying to convey and the importance of understanding the full picture by acknowledging the smaller components. (Fig. 4)

Fig. 5

Fig. 6

The notion of one image with multiple perspectives intrigued the children and so we decided to relaunch the idea of what the eye sees. The children 'stepped inside' others and nature in their writing, they constructed spaces 'as far as the eye can see', they looked closely at their own eyes and represented these in watercolour. (Fig. 5–6) They used nature as a medium to further explore this concept; what could they see in nature from different perspectives and how could zooming in with a microscope enable them to see within. (Fig. 7) The experiences continued to grow and broaden as their fascination persisted. They wrote love letters to nature demonstrating their understanding of their perspective of the natural world. Through these experiences, space and time were continuously given to conversations about how the eye works and how we may see differently.

Maybe the light made the eyes look more lighter so that's why they look certain places likes seas and trees.

I think the part of the eye is the iris, because irises have the colour of your eye.

An authentic opportunity to introduce the concept of research emerged. The children clearly had a lot of knowledge and had many opportunities to share their theories. However, we felt that with more knowledge and scientific understanding of the eye's inner workings we may have more meaningful wonderings.

We are constantly reminded of the importance of authentic research as part of an investigation. One educator from Reggio Emilia explains, **"Throughout this research cycle, the notion of investigation itself became meaningful to the children, including the idea of extending their knowledge by using local resources."**[7]

The children created diagrams and glossaries of the eye which incorporated their prior knowledge. They enthusiastically shared with one another what they had discovered.

The eye lashes wipe off the dust.

The cornea is the transparent window of the eye.

They confirmed or tested their theories with non-fiction texts and online research. (Fig. 8) The excitement of learning about how their bodies work was powerful, but we wanted to ensure that the children maintained the magic of wonder that threaded throughout this inquiry.

"Short term projects contain within them all the seeds for long-term projects to eventually flourish".[8]

The children's wonderings deepened with more complexity. They asked questions that challenged our learning community.

How is the eye so small but we can see such big things?

How do eyes not grow but you see more?

At this time, the ELC took part in the school's Indigenous immersion week, reuniting the children with Indigenous artist Angie Cleaver whom the children had met the year before. The children's engagement with Angie sparked a conversation in our class upon the ideas of 'elders' and 'elderly'. The children perceived elderly as *old people with grey hair, who like to take walks and drink tea.* The stereotypical view of being old shone through but at the same time their understanding of what is old and who is an elder needed further exploration.

Fig. 7

Fig. 8

Fig. 9

Fig. 10

This connected seamlessly with another Year One project 'Yad B'yad' (hand in hand) where our Year One students were building connections with residents from Emmy Monash Aged Care. (Fig. 9) After the residents first came to our class, the children were asked, why do you think the residents are visiting us?

They can teach us how to be an old person for when we are older.

At this point, a natural progression for our learning became apparent. Our children had learnt so much about looking, seeing, perspective and the eye. How would their understandings of perspective shift if we added the element of time? Furthermore, how would the perspective of time and ageing enrich their understanding of the perspective of others and themselves? In a sense, we were returning to one of our initial questions, what is hidden within?

The children were asked to 'Step Inside' their 93 year old selves and imagine the world using all of their senses.

Today I woke up as a 93 year old. I could smell strawberry and chocolate coffee waiting for me downstairs (my daughter made it). I couldn't see very clearly so I had to wear glasses. I had a walking stick because I couldn't walk on my own. I love relaxing all day long. I feel calm and warm in the summer breeze. When I taste a strawberry I don't taste it at all because I don't remember what it tastes like. I don't remember going to school and seeing my teachers Zoe and Nat. I like smelling roses in my garden. I have three granddaughters and two grandsons. I have lines next to my mouth and wrinkles all over my cheeks. My hair is light grey. I don't have teeth. I can't hear very well.

The children's writing anchored our thinking in this notion of seeing through the eyes of the 'elders'. This provocation led to other experiences such as drawing self-portraits of the future and representing these in clay. (Fig. 10) We wondered, can we see the now differently by looking from the perspective of our future?

The children will soon embark on a transition to the Primary School. They will move from being the eldest of the ELC to the youngest; a new chapter of their learning journey. What will they see and how will their perspectives change? What knowledges and curiosities will they take with them to see multiples perspectives and look at what lies beneath the surface? How will their 'childish wonder' live on in their 'magic eyes' and how will these experiences influence their perspectives as they grow?

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Year 1 Bet

We are constructors of knowledge and learning

Children are active constructors of knowledge and they express their learning through '100 languages'.[1]

As the teacher of Year One Bet, I have had the privilege of witnessing the growth of the children through embedding Reggio Emilia principles in my practice. This journey has been a profoundly personal and enlightening one, as I observed these young learners evolve throughout the year.

At the start of Year One, our class community welcomed three new students alongside myself as a new teacher at Bialik College. Having previously worked in International Baccalaureate schools, my transition to this new educational setting was a notable adjustment. It was a challenge that I willingly embraced as I sought to recalibrate my pedagogical approach.

The dynamic rapport between the students and myself, as well as between students themselves, became pivotal in shaping the conducive classroom climate that emerged. Trust, empathy, and mutual respect became the cornerstones of a compassionate and supportive learning environment. These bonds, woven both individually and across the classroom community, played a starring role in creating a space where children could thrive and flourish.

During Science Week, near the beginning of the year, the children were given the opportunity to look closely at the brain alongside one of the middle school's science teachers. As scientists, the children dissected cows' brains and learnt more about the brain's parts. Following this experience, the children's curiosity into their

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Fig. 6

Fig. 7

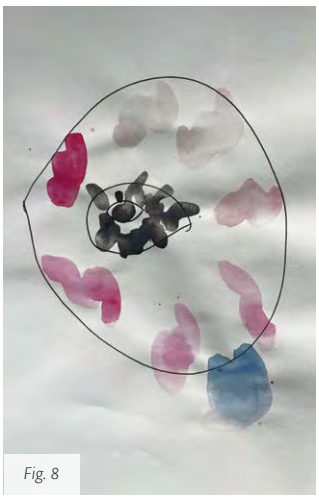

Fig. 8

own learning capabilities and the mechanics of their bodies and brains took centre stage. (Fig. 1–2)

We use the brain the most in our body.

Ya, and the brain tells us what to do.

Blood goes to the brain so it can work then it talks to the other body parts.

In class conversations, the children delved into understanding how the brain influenced their daily lives and physical movements, sparking wonderings about the human body.

How does it work when we are learning?

How does the brain connect to your organs?

How does the brain send messages (to other parts of the body)?

To nurture this sense of inquiry, the students were provided with models of the brain and a full-body exploration. The creation of our class 'Wonder Wall', where their questions and discoveries were proudly displayed, made their wonderings tangible and accessible, fostering a sense of ownership amongst the children. (Fig. 3–4)

Loris Malaguzzi writes about the importance of documentation to make thinking visible, saying **"children become more curious, interested, and confident as they contemplate the meaning of what they have achieved".**[2]

The investigation continued as the children embarked on creating life-size versions of themselves on paper and drawing internal organs based on their existing knowledge. They actively sought more information through non-fiction books as well as online articles, all in pursuit of deeper insights into their chosen topic. They developed their own theories about how the brain communicated with the rest of the body and organs to ensure proper functioning. Their ideas were shared, discussed, and expressed through drawings and painting. (Fig. 5–6)

The brain is pink and grey. The blood in the brain is actually red but it becomes pinky because the grey is the messages that the brain is sending to other parts of the body and it change the colour of the blood in the brain. (Fig. 7)

The eye is the one in black. Some squiggly lines are red and pink and grey because the brain sends the messages for the eye to see so we can see. The blue behind the eye is the messages that the eye sends to back to the brain. (Fig. 8)

It was clear that the children's conversations and drawings often shared ideas of messages and traveling information from one entity to the next. And so this concept was embedded in several different learning opportunities within the classroom to deepen the children's understandings of how messages are expressed and received. How are messages passed on? What is the 'magic' that

Fig. 9


Fig. 12


Fig. 10


Fig. 11

allows messages to travel? In what ways do we communicate? In small groups, the children looked closely at braille language, Dreamtime stories and the Australia-Post organisation. Their theories continuously made visible on the Wonder Wall. (Fig. 9–12)

Throughout the following months, the concept of messages anchored both the children's learning and my understanding of the Reggio Emilia philosophy. During this time, author and researcher Stefania Giaminutti was invited into our ELC as a guest speaker at the Cultures of Thinking Conference held at Bialik College. This was an enlightening opportunity, giving me an even deeper and broader insight into the Reggio Emilia approach.

In her book, Dancing with Reggio Emilia, Stefania emphasised the importance of the children's voices and context as an invitation to encounter the complexity of their learning and engagements.[3]

This resonated with me considering the interactions and theories developed by the children throughout their learning journey this year. They discovered more about the magic of messages, not just by consuming knowledge, but by making sense of their knowledge already known and building upon these in a meaningful and thoughtful encounter with their environment.[4]

This investigation into magical messages underscores a much more profound message of my own professional development; that is the value of the Reggio Emilia approach in a classroom environment. Rost and Wilson stated that **"by nurturing curiosity, providing space for wondering and valuing the image of the child"**[5], we have empowered young learners to construct their knowledge and understanding of the world around them. This approach nurtures a love for learning and reminds both teachers and children alike that the sheer joy of authentic discovery has the power to empower young thinkers to learn and grow into the future.

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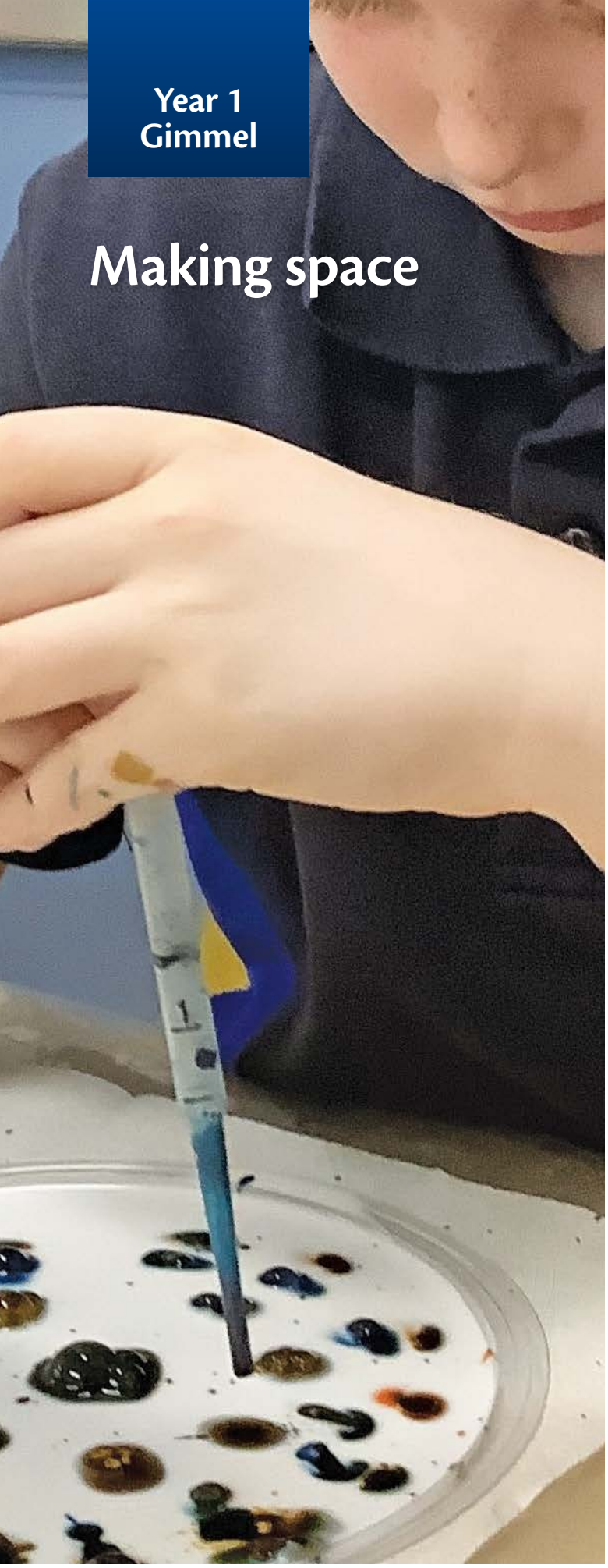

Year 1
Gimmel

Making space

How do we provide and approach learning opportunities in order to nurture independence, curiosity, creativity, and active learning?

Our umbrella concept in the Early Learning Centre this year was 'Magic'. Magic evokes concepts such as wonder, mystery and curiosity. When thinking about these concepts and about introducing magic into the classroom, the Northern Lights was chosen as the platform to investigate, observe, and reflect on the opportunities in our classroom. It is a natural event full of wonder, mystery, and awe.

Within a Reggio Emilia inspired approach, we prioritise hearing children's voices throughout their learning and work from our image of the child as competent, capable, and curious. Educators are always looking for that sweet spot that allows the child to be co-constructer of their knowledge, while still honouring the requirements of the curriculum. **"The school and the culture separate the head from the body. They tell the child: to think without hands, to do without head, to listen and not to speak, to understand without joy, to love and to marvel only at Easter and Christmas."**[1]

There is a constant balance we attempt to achieve as educators. Constantly trying to weave our commitment to child centred practice with external expectations. During a recent professional learning opportunity, Dr Stefania Giamminuti from Curtin University, shared the idea that educators must attempt to open space and place for children to reach for the unmeasurable, and that the measurable is needed to get there. Taking this approach to class learning, the research journey followed the thinking and theories of the group and the individuals in the classroom and the curriculum was one of the many tools used to enhance and enrich these experiences. (Fig. 1)

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Our research was now to investigate how opportunities could be provided for all our children, to scaffold and encourage them to be more independent learners. How do we ensure those opportunities support and encourage the children to be met where they are, allowing their ideas, questions, and understandings to develop further? (Fig. 2)

Keeping the investigation around the concept of magic an authentic investigation the educator did not research the Northern Lights prior to bringing it to the class. Instead, the educator and the children entered the exploration of the Northern Lights full of awe, questions, and wonder, without a set learning outcome such as science or art. Embarking on the investigation without having all the questions answered meant the possibilities for exploration were limitless.

The journey began as the children watched a time lapse video of the Northern Lights.

How is it happening?

Who did that?

Sky did it.

It's the sky not people.

I know how they do it a lot of light connects.

Will they have it this year?

Is it every year?

No, it's rare. (Fig. 3)

The 'Thinking is researching' idea of John Dewey corresponds to the image and role of children as researchers in the school of Reggio Emilia.[2] Children are natural researchers who research by asking about what they see, making hypotheses, making experiments and discoveries. Children have opportunities to discover, question, discuss, establish hypotheses, and verify their thoughts by participating in project works.

Reflecting on the initial documentation of the children we wondered how their words, questions, and wonderings could guide the next learning opportunities. What opportunities would elicit more questions, support new skills, encourage the children to take risks, share their existing thoughts and understanding and encourage new ideas? The children were encouraged to individually ask questions about the Northern Lights. These questions were reflected upon and discussed to form a singular class question. How are the lights and colour pushed into the sky? (Fig. 4)

This question enriched the conversation and investigations to the interaction between light and colour in nature and in space, the forces at play in the sky within the earth but also the forces in space and how that interacts with the earth. The children were fascinated by the geographical aspect of where the Northern

Fig. 5

Fig. 6

Fig. 7

Lights could happen and the corresponding weather conditions in those places.

I thought the moon, the stars and the sun were making it (the Northern Lights) and I thought the clouds were just telling us that it doesn't happen all in one day.

It is so cold in the north, the stars the moon and the sun bang together and the ice and it makes it colourful. (Fig. 5)

The learning experiences provided were much wider than anticipated at the initial stages of the investigation. The range was influenced by the fact that there was no specific agenda set as to the knowledge the children needed to have at the end of the investigation. Making space for the learning opportunities to be dynamic and fluid with no fear of returning to ideas or concepts. Returning to the children's questions, their recorded conversations and theories brought in different perspectives and understandings. (Fig. 6)

This also meant many in the class could experience sitting in that uncomfortable, curious place of not knowing and enjoy the thinking, hypothesising, and theorising before even contemplating the knowing. (Fig. 7)

"This feeling of wonderment is the source and inexhaustible fountain-head of his desire for knowledge. It drives the child irresistibly on to solve the mystery, and if in his attempt he encounters a causal relationship, he will not tire of repeating the same experiment ten times, a hundred times, in order to taste the thrill of discovery over and over again… The reason why the adult no longer wonders is not because he has solved the riddle of life, but because he has grown accustomed to the laws governing his world picture".[3]

There were those amongst the children who were more adamant about their ideas. Having said this, those who were sure of their understanding were excited to delve deeper into explaining and supporting their thinking through construction, drawing, writing information texts, digital technology, art installations and science experiments.

The children thrived while deep diving into the learning, creating richer experiences. The real magic was how invested the children were to keep coming back to the concept of how the Northern Lights were happening, sans boredom, exhaustion, or apathy. Driven by their wonderings, imagination, and words the research went on for many months because the investigation wasn't limited by knowledge already set.

The sky is amazing it shows us the Northern Lights and it has heat go through it, so we are warm. It's amazing the heat doesn't freeze. Because space is freezing.

At different times the Northern Lights change colours. In the day it was green but, in the night, it was different colours because there is darkness, and you can see more.

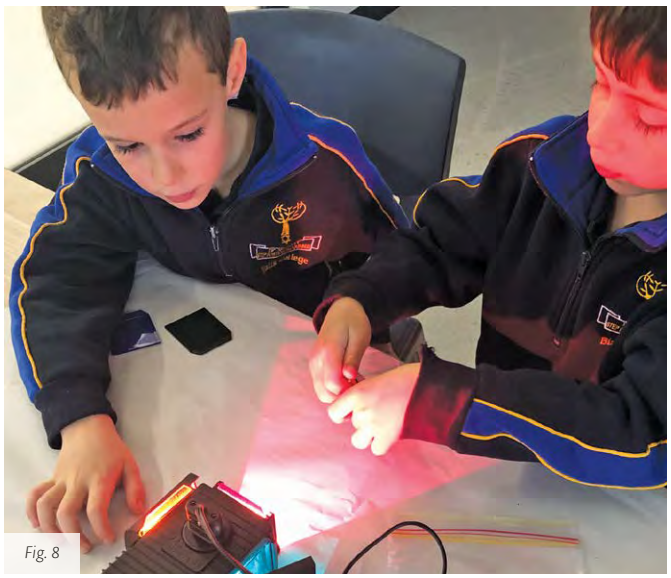

Fig. 8

Fig. 9

Fig. 10

I think that at nighttime there are more colours because there are not many people…

The investigation of the Northern Lights brought us to discuss the experience of time, the difference between magic and magical and our relationship with the sky. We were even able to go to the High School science lab and experiment with a resident expert, to play with colour and light. (Fig. 9)

Magic means something like happens today, means something magical yesterday.

Magic and magical have different meanings. Magic is something you can see and magical is something you can think.

The stars in the sky are always there. They all mean something. When a person dies their star in the sky will fall down…

In this research the educator focused on providing opportunities to nurture independence, curiosity, creativity and active learning using the children's natural curiosity and interest as the main driver of the learning. **"Research, in this sense, is used to describe the paths of individuals and groups in the direction of new universes of possibility. Research as the disclosure and the revelation of an event. Research as art…"**[4] (Fig. 10)

This in turn brought up the question of how to enrich opportunities for educators to engage in deep and rich discussions that nurture the teacher as a learner, facilitator and investigator who is able to sit uncomfortably in the learning opportunities alongside the children?

To attempt to reach for the unmeasurable we need the measurable to get there. The measurable is made up of many things like the curriculum, the Cultures of Thinking project, and an overall classroom culture.

We are left wondering how we can ensure that the children continue to reach for the unmeasurable in a world that highlights the measurable. How will their experience exploring the Northern Lights remind them to look for the magic in the natural world? How will it encourage them to ask questions and create their own theories as they explore possibilities?

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Bialik Children's Centre

Bialik Children's Centre Aleph

Does movement provide freedom, or does freedom provide movement?

Monique Janssen, Ana De Moraes, Joanna Li, Tal Barzel

Bialik Children's Centre Bet

The magical encounters with materials

Shalika Halihinga, Erika Pimentel, Serene Wangmo, Ericka O'Sullivan, Tal Barzel

Bialik Children's Centre Gimmel

When it can't be seen again does that mean it disappears?

Valery Carias, Pasuni Kudahetti, HongLing Zhai, Richard Mercado, June Kilsby, Tal Barzel

Bialik Children's Centre Dalet

Magic can be found in the formation of the land

Melania Patrassi, Sam Cashen, Sarah Heng, Grace Nguyen, Meshie Bargi, Meg Johnston, Tal Barzel

3 Year Old Kinder

Kinder 3 Aleph

The individual and the group

Natalie Kirley, Pazit Spring, Megan Jay, Amy Pickard, Mandie Teperman

Kinder 3 Bet

Environment and relationships

Ranjna Najat, Ortal Erez Bennett, Miri Sheffer Waterson, Talya Erenboim

Kinder 3 Gimmel

Fairies make magic... they have magic power...

Gali Sommer, Tali Carmi/Judy Blumberg, Rajitha Subasinghe, Danielle Taouk

4 Year Old Kinder

Kinder 4 Aleph

Did you know that there are hearts at the bottom of trees?

Amy Jacobs, Adi Barzilay, Chris Georgalas, Julia Rogers, Nikki Kausman

Kinder 4 Bet

How do we go inside it?

Megan Miller, Mira Ziger, Rosemarry Barry, Robyn Winograd

Kinder 4 Gimmel

How does time and space influence our creativity?

Sarah Downie, Ayana Shavit, Gail Bousi, Deb Nirens

Prep

Prep Aleph

Launching and relaunching

Roz Marks, Nikki Kausman, Danielle Taouk

Prep Bet

I think maybe the magic is real

Linda Baise, Deb Nirens, Talya Erenboim

Prep Gimmel

When are we truly listening?

Melanie Woolhouse, Yael Shaul, Sandy Sher

Prep / Year 1 Jewish Studies

The power of imagination is magical

Des Kaye, Etty Ben Artzi, Shlomit Rubinstein

Year 1

Year 1 Aleph

Seeing the hidden magic

Natalie Kluska, Zoe Winograd, Yael Shaul, Talya Erenboim, Chris Georgalas

Year 1 Bet

We are constructors of knowledge and learning

Lena Hallion, Robyn Winograd

Year 1 Gimmel

Making space

Bianca Singer, Mandie Teperman, Sandy Sher


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