NATURE AND NURTURE

Lesley McMillan, an interior designer with The City of Edinburgh Council, tells *Planning Learning Spaces* about the key things she considers with each new project and why incorporating nature into schools and nurseries is so important.

What kind of spaces are you involved in designing and what are your responsibilities?

I am involved with the architectural and technical aspects of interiors through to decoration and furniture specification.

Design projects include libraries, young people's residences, schools and nurseries.

Being involved in projects from the outset allows us to influence the building design, consider the configuration of the teaching space and how it will be used.

We work with teachers to give advice on how to support pedagogy in these new spaces or to use existing spaces more creatively.

Have any projects in particular informed the foundations of your thinking as a designer?

The beginning of my design journey at City of Edinburgh Council has been with early years environments; it really is about getting it right from the beginning.

The lessons learnt in these settings have had a huge influence on many of my other designs and are translatable through the different stages of education.

With a rising birth rate and an increase in the number of free nursery hours there is a growing demand for nursery places in Scotland. There have been numerous new builds and refurbishments as part of a building programme to accommodate this expansion.

In designing these spaces, we have taken into account research emphasising the importance of free flow play and creating a nurturing, holistic and natural environment to support children's learning and development.

We considered the forest nurseries approach, the benefits of biophilic design, best ergonomic practice and research on brain development and attachment theory.

IN DESIGNING THESE SPACES, WE HAVE TAKEN INTO ACCOUNT RESEARCH EMPHASISING THE IMPORTANCE OF FREE FLOW PLAY

What other things are important in the design of these learning spaces?

A key requirement in any learning setting is that it allows for flexibility, creating highly configurable environments.

Each group of children is different. The age and number of pupils - and what they do in that space - is going to vary. Also, we need to take into account children with additional support needs.

Flexible storage furniture and screens can create natural boundaries between activity areas, protecting children's play and supporting their focus.

Carpeted areas can sometimes restrict the possibilities for rearranging interest areas as the room's use changes. This is why I mostly use vinyl flooring throughout with the use of extra soft, tactile carpet area rugs for flexibility.

How to you take into account pupil wellbeing in your designs?

I was recently asked to chair the new Education Design Council, part of the Society of British and International Interior Design

I invited Jim Taylor and Oliver Heath, two experts in designing for wellbeing who I admire, to join me on the panel.

Oliver Heath is a biophilic design expert and founder of architectural and interior design practice Oliver Heath Designs.

His work is inspired by the idea that humans have an innate attraction to nature and natural processes. The term was popularised by the US psychologist Edward O. Wilson in the 1980s, when he observed how increasing rates of urbanisation were leading to disconnection with the natural world.

Regular positive interactions with nature allow children to feel comfortable and grow to love it.

Research has proven that our attention capacity, which is essential for our cognitive functioning, is restored when we come into contact with nature, improving performance and the wellbeing of both staff members and students.

Where a primary experience of nature is not available, experts say that installing tactile and visual references to nature can reduce stress responses. You could use natural textures, materials, patterns, colours and motifs in floor and wall coverings to achieve this.

Do you have any projects you are particularly proud of?

We received a commendation in the Scottish Play Awards and also the Education Buildings Scotland Awards for the Murrayburn Imagination Playroom.

The space, originally a library, was converted to create a playroom for children in the early years of the school, with the intention of softening the transition into primary 1 (4 and 5-year-olds) from nursery.

We designed it with no 'front of room', orientation and resources added to the magical, calm nurturing environment.

Consultation with the children led to a space incorporating some of their wishes such as blocks and wigwams, encouraging imagination and active play.

Pupils with additional support needs from the school's language and communication classes equally enjoy using this inclusive space. The nook, wigwams and playhouse provide a comforting place if a child wants some time out.

Is it hard to get the decoration right in a learning space – how much is too much?

One of the reasons I mainly use a natural colour palette is that it allows children's work to stand out.

It allows the focus in the environment to go on the colours inherent in the work completed by the children and staff.

Natural backgrounds give children the opportunity to learn about, compare, contrast and experiment with colour.

Natural holistic environments are also calmer inclusive spaces for children with autism and additional support needs.

One idea that has been a big success for us has been "velcro receptive pin boarding". I use it in early years spaces at low level to allow the child to stick their artwork on by themselves.

INTERACTIONS WITH NATURE ALLOW CHILDREN TO FEEL COMFORTABLE

CREATE THE MOST POSITIVE LEARNING ENVIRONMENTS POSSIBLE

Why is a sense of calm so important in classrooms?

I have been working on the interior of a newbuild SEN school, St Crispin's, which is due for completion in 2021.

Part of this project included a seminar with Phoebe Caldwell - an expert practitioner who has spent 45 years working with people on the autistic spectrum.

She stressed that people with autism need "visual and auditory tranquillity". Schools are difficult environments for children with autism: they are over- stimulating, triggering behavioural distress.

Sensory processing problems are triggered by environmental sensory overload so designers have to think carefully about lighting and visual hypersensivity, boundaries and space, storage and how many resources to have out at any one time.

How important for you is the idea that children feel "cosy" in their learning environments?

Research on brain development and attachment underlines the importance of creating opportunities for children of all ages to develop trusting relationships with practitioners/ keyworkers.

These help ease anxieties brought on by separation from parents and caregivers and create the most positive learning environments possible.

Suzanne Zeedyke, senior lecturer at the University of Dundee, highlights the need for children to have cuddles from a trusted key-worker, boosting levels of oxytocin, the feel good hormone, in the brain and lowering levels of the stress hormone, cortisol.

The English translation of the Scottish term *coorie-in* is cuddle up. Cuddle sofas with a low seat height for children to sit on but also deep enough for the adults to sit in too are a must. They have big comfy arms encouraging children to snuggle up with a parent, practitioner or friend for cuddles and cosy reading time.

Designed-in nooks and other small spaces can encourage reading, as can dedicated bedtime story areas.

Wallpaper (in many of my projects it's upcycled) can make a space feel homely; cubes and shelves allow staff to display seasons and themes.

Sometimes simply bringing a branch indoors and adding fairy lights can add to a magical calm environment.

How important is it to include young people in the design of their learning spaces?

When we were refurbishing St Margaret's we trialled learning space ideas for future school projects. During our consultation with pupils some ideas were coming up multiple times or along similar themes.

Pupils wanted to represent the school's sense of identity and they had many ideas about the sea, fish, boats and coral reefs. Blue was a favourite colour, too and all this inspired a design centred on the story of Saint Margaret.

We managed to incorporate references to St Margaret's Cave, the Forth Sea and Fingal's Cave into the school, which also featured a "learning shipwreck" and classrooms making reference to the land and local areas.

Developing a design journal can help the class understand the "design story" of their environment and act as a prompt for future pupils and teachers to understand and develop the space in the future.

In a current project I suggested the class formed a design team – with architects, interior designers, furniture specialists, M&E consultants, ICT & AV specialists.

The teacher led the class to think about the role they would like and had them fill out mock job applications.

How would you sum up the key principles of learning space design for you?

I aim to create natural, nurturing spaces that are non-prescriptive which stimulate or require imagination and which can be used in multiple ways.

The outdoor environment is important for all stages of education and should be an extension of the indoor environment with opportunities to free flow where possible.

Learning spaces should provide possibility.

A rich range of opportunities and furniture choices should allow and encourage children to move and create a nurturing yet exciting play environment which promotes creativity, imagination and flexibility.

Continuing to work as an in-house design team and client teams allows us to continually get feedback from the client and users of the spaces.

It's an amazing opportunity and extremely rewarding to see how these learning spaces develop over time. ■