Children's Perceptions OF COLOUR AND SPACE



THE ULTIMATE FLOORING EXPERIENCE



How does colour influence our well-being?

Colour doesn't just offer decorative value. It directly affects our emotions, behaviours, and well-being. It is therefore essential to take its powers into account and to master them in order to create quality spaces.

" Many studies confirm that colours produce different effects that are physically perceptible, including in tension, heart rate, breathing, body temperature, and brain activity. " Lennie Scott-Webber, director of educational environments, Steelcase¹

How is this important in childhood development?

Among other things, colour affects the development of psychomotor skills and contributes to personal fulfilment. Colour and spatial perception are built and evolve as children grow. Whatever a child's age, the environment — and especially the chromatic atmosphere — contributes to development and education even more than other factors.

For the harmonious development of a visual system, there must be light and colour stimulation that is adapted to each age group.

How can we work with colour and apply it within recommendations that are adapted for flooring?

In making colour choices the debate often centres on personal preferences. However, this document — the result of research and of expert interviews — shows how to approach colour in a reasoned and functional way. In architecture it's not unusual to call on specialists in acoustics, light, and air quality. But what about colour? Where there is a lack of mastery, the choice too often ends up landing in neutral palettes (whites, greys, and beiges), and this is even more true in floor coverings. Meanwhile, we see real demands on colour for example in household appliances. **Elements that have gotten 'colour attention' have a greater influence on well-being.**

arkett, through its design team, has built up a **centre of expertise** in **colour** in order to develop its understanding of colour's emotional and behavioural impact on users in a way that goes beyond trends and personal tastes.

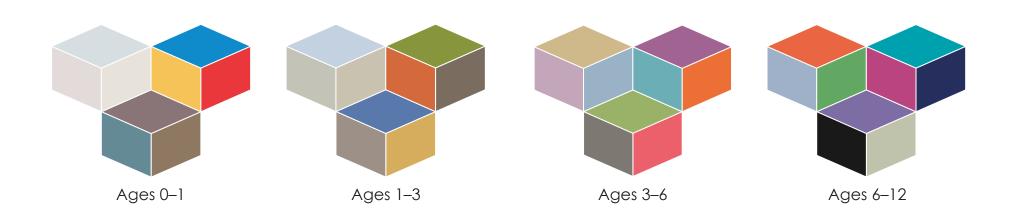


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WORKING PRINCIPLES

A proposed palette of nine colours was created for each age group. Each of these palettes is consistent with children's development of visual capacities, their emotional states, and their needs for stimulation for psychomotor development. These choices come out of research by experts in colour and in early childhood, to whom we are quite grateful for their contributions.

These colour suggestions are to be used as a basis for projects, and to be adapted to each one. This document also shows the alternatives and the nuances that come out of these base palettes. Each context and also each individual is unique; each can have needs for colours that change according to environments, times of day, and physical and mental states. Generally, **children should be in direct contact with colour, but each one's colour sensitivity is not the same.** In this report, we have sought to focus on the specific needs of children who are more introverted or extroverted. Thus, each base colour palette is adapted to three environments: calm, medium, and stimulating.



We have developed the colour ambiances in line with expert feedback. These proposals can be **easily applied in various spaces: schools, hospi**tals, and private homes. They promote development within chromatically adapted environments. These principles are not just for use with children; many lessons from this report can be applied to the adult world.



THE DEVELOPMENT OF CHILDREN'S VISUAL SKILLS



Ages 0 – 1

Ages 1 – 3

1/10th to 6/10th visual acuity

Crawling or just able to walk, and touches everything that he sees

Coordinates visual and motor information

180° (the same as an adult)

Visually detects objects of interest

Evaluates depth, relief in surfaces, and form

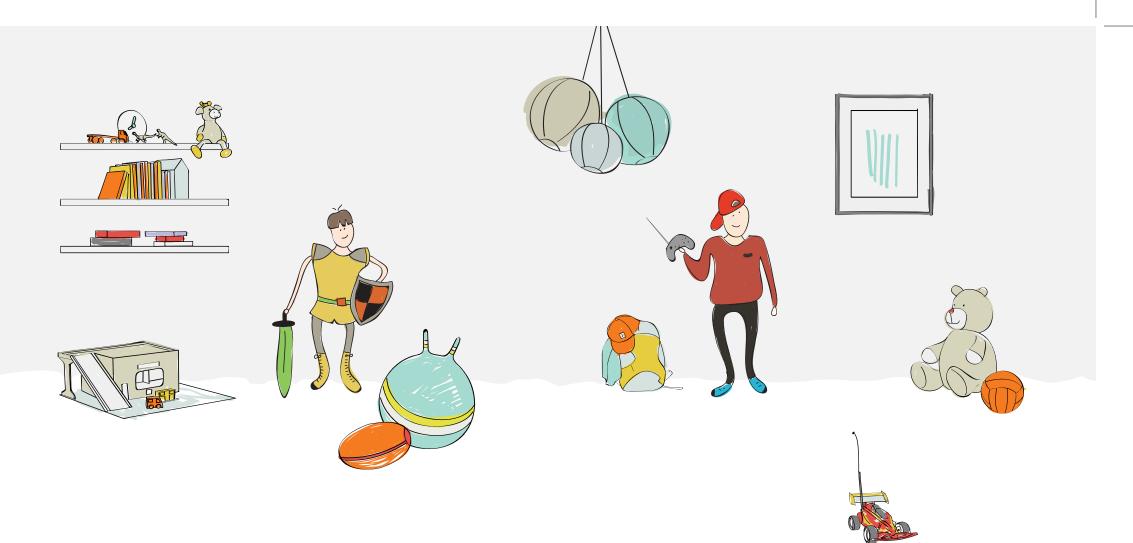
Identifies nearby and faraway objects

1/40th visual acuity at birth

At birth, can perceive nearby objects (at 20-50cm) and stable images

The visual field is reduced by 60° on the horizontal axis and 20° on the vertical axis

Sensitive to light intensity and contrasts



Ages 3 – 6

Ages 6 – 12

Develops sense of observation Focuses attention on a set of elements

Collects visual information indiscriminately

Adult-level visual acuity (100%)

Employs full visual capacity in learning at school

Uses visual short-term memory



CHILDREN'S PERCEPTIONS OF COLOUR



Ages 0 – 1

Colour is a visual stimulus; an **'emotional' sensation**

Reacts to red and white at two months, to green at three months, and to blue and yellow at 6 months

Doesn't distinguish purple, blue, or even blue-green and pastels In order to be distinguished from white, the colours must be very saturated

Does distinguish shades of grey



Ages 1 – 3

Colour represents an **indicator**

Colour is a cue that facilitates differentiation

Perceives strong, saturated colours (red, blue, green, yellow, black and white)

Can name the primary colours



Ages 3 - 6

Colour is a **communicative** signal

Able to name somewhat more complicated colours like pink, purple, grey, and brown



Colour can be chosen, and appropriated, which promotes **identity processes**

Colour has a meaning and is progressively enriched with educational, social and cultural references

Refines perception, and is able to distinguish between close shades such as brown and beige

CHILDREN'S UNDERSTANDING OF SPACE



Immersive space

Lives in space through relationship with parents

Circadian rhythms are important



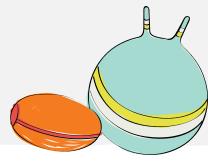
Lived space

Moves around space and manipulates things

Begins to intuitively adapt to distances and to the environment

Learns to place objects in relationship to himself

The child perceives **his house as a second skin**; it is protective and adapted to his needs



Ages 3 – 6

Perceived space

Experiences space egocentrically (relative to himself)

Finds pleasure in diverse spatial experiences (throwing, jumping, climbing)

Establishes topological relationships according to his own experience (near, far, opposite; distinguishing of shapes, sizes; alignment of objects; inside; under; between...)

Organizes space according to his needs



Ages 6 – 12

Known space

Capable of perspective and transferability

Can consider space from someone else's point of view

The child can fully grasp space and discovers the relationships of dimensions

He **becomes an architect** and builds forts suitable for his size



THE INFLUENCE & IMPACT OF COLOUR

In General:

C olours have a dramatic impact on our memory; they improve learning from 55 to 78%². The colours that children love are the ones that have the most impact on their performance³.

Children like light and saturated (intense) colour while teenagers prefer somewhat darker and softened colours⁴.

Consideration of preferences, however, must be moderated by context. One colour might be preferred for an object or article of clothing — but this doesn't necessarily apply to a space, wall, or flooring.

" It is the characteristics of a shade (saturation, brightness) more than the colour itself that impact preferences, emotions, and behaviour. "

Professor Oberfeld-Twistel, Department of Experimental Psychology, Johannes Gutenberg University-Mainz



Children (like adults) are less attracted by achromatic tones (whites, greys, and black).⁵



Light grey: Reduces the overall effect of daylight and helps reduce the intensity of a highly colourful room

Dark grey: Brings character to interiors for older children when coupled with their personalities

BROWN



Light brown: Brings warmth and soothes in a colourful environment

Children don't enjoy browns as much.

Dark brown: Conjures natural materials (wood, earth), creating a warmer and safer environment



Children enjoy shades of yellow much more than their adult counterparts.⁶

Light yellow: Lends enthusiasm and cheerfulness

Intense yellow: Symbolises the sun, generates optimism, stimulates motor skills

Dark yellow: Closer to earth tones; generates self-confidence, encourages sociability



Children love all of the shades of green.



Light green: Relaxing, conducive to concentration

Intense green: Promotes learning and lends a healthy and balanced atmosphere

Dark green: Creates a link with nature; evokes strength and hope



Children are very attracted to reds.⁷



Light red (pink): Promotes learning,⁸ particularly for nursery-school-aged children

Intense red: Encourages exchanges and sharing with others and symbolizes, among other things, primary emotions such as joy, hate, love, etc...

Dark red: Better liked by older children

Children love orange tones.

BLUE

Children love bluish environments.



Light blue: Calming, associated with fresh air and blue skies

Intense blue: Refreshes and reassures, even at its most saturated

Dark blue: Lends a sense of peace and tranquillity, particularly through its association with the night

PURPLE

Children love environments made up of shades of purple, from reddish to bluish.

Light purple: Stimulates dreams and the imagination

Intense purple: Promotes creativity in the classroom

Dark purple: Creates a mystical and magical environment

ORANGE



Light orange: Subtly stimulates activity while maintaining concentration

Intense orange: Brings warmth and optimism, and stimulates motor skills

Dark orange: Strongly linked to earth colours and improves social behaviour

" Are our colour preferences innate or acquired? Up to the age of two, colour doesn't influence children's choices in toys."
Then, from the age of two, girls' preference for pink and boys' for blue appears. This predilection appears to be acquired through education rather than to be innate. "

Jean-Gabriel Causse, colour designer, author¹⁰





S 1050-Y10R



Infants' environments should be punctuated by contrasting colours, accented by primary colours and tactile materials that promote polysensory awakening. In parallel, a cocooning sensation is promoted through natural materials: soft wood, muted flat tones, and colours that reference the earth. It is important to create a reassuring space, particularly for the parents. And indeed, they are the ones who choose what is best for their infant. Their preferences lean toward elements that are of higher quality and are pleasant and reassuring. The colour palette includes contrasts but without moving into extremes like black and white. The contrasts are subtle: lightly tinted whites combine

with subdued and primary colours.

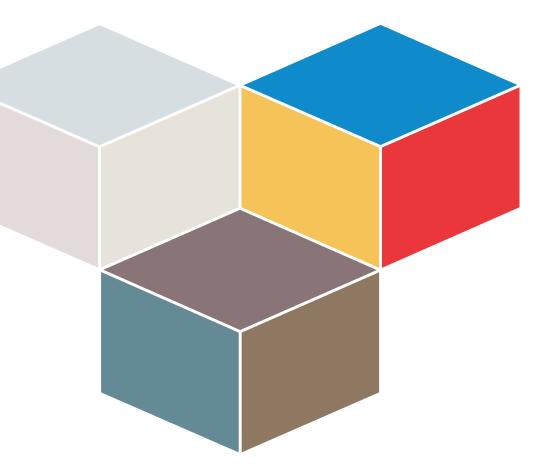


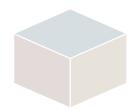
Ages 0-1

The colours proposed offer a reassuring emotional environment for the babies as well as for the parents. In order to work with both periods of wakefulness and rest, the colour combinations go from soft to stimulating.

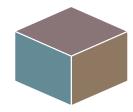
At this age, babies are quite sensitive to the space's stimuli. They have a direct relationship with the floor when playing on all fours or learning to walk. They prefer 'focal colours', i.e., those considered monochromatic: blue, green, yellow, and red.

They particularly like saturated colours and those at the far blue and red ends of the spectrum. They are less attracted to mixed colours because their visual acuity is not fully mature.





These are not true whites, but rather lightly tinted whites. This more subtle approach gives spaces more character, charm, and depth. In contrast to basic white, this is a true, professional take on whites.



In order to create contrasts that are appreciated by infants, these greys are meant to be combined with the tinted whites from the first cube. This is a more elegant alternative to the customary black and white combinations.



These are the colours that babies can best distinguish. The strongest contrasts are between the primary colours. The direct use of these colours can be harsh; to avoid a Lego-like effect, it is worthwhile to soften the hues that are too strong in order to create quality spaces.



Parents are very involved in preparing this space for the arrival of their baby; it must be both qualitative and respect circadian rhythms in sleep and wakefulness. A serene environment with stimulating touches is

recommended, because babies learn about the world through the objects around them. Colours and light bring sensations of which they are an integral part.

" The baby reacts to global sensations; sounds and colours correspond. A sound like "Bouba" gets linked to blue and "Kiki" to yellow. "

Ann Bessemans, professor of graphic design

Three environments that correspond to parents wishes, going from a calmer space to a bolder space, all the while conserving the ideal harmony for baby development.

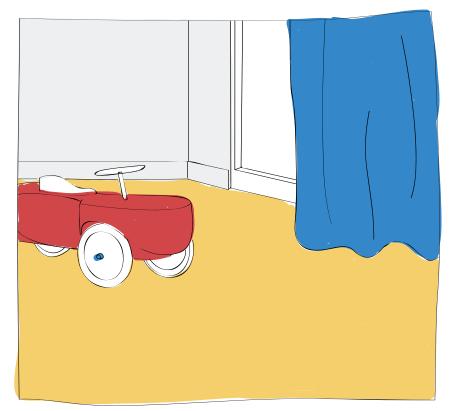


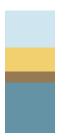


Pastel flooring and walls are calming. A light flooring reflects light in an ideal way in order to respect circadian rhythms.









The variety of blue tones provides a calm and peaceful feeling, both for the baby and for the parents.

The combining of primary colours creates enough contrast to help the baby to recognise shapes.

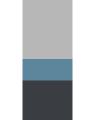


Children have a special relationship with the ground that extends until late in adolescence. Infants are in constant interaction with flooring; for them it's a play ground. **The flooring's colours and patterns are a land to be discovered**, **as much so as toys.** But children react differently to these stimuli according to their development and the time of day.

" In a childcare centre that can easily get noisy - with so many children, never enough staff, and toys everywhere it's necessary to create boundaries, order, and structure through nuanced spaces that are very perceptible to the young ones. "

Marc Detiffe

Doukje Sel, child psychologist



A high-contrast tiling pattern helps babies recognize their own space and to find their toys.







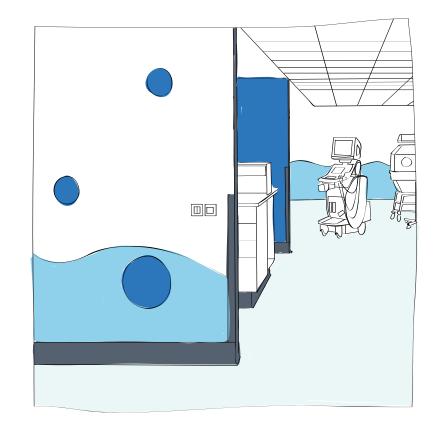
A childcare centre's daily activity alternates between calm and lively moments. The combining of calm and dynamic colours in the same space gives children choices so that they can find their places according to their temperaments.

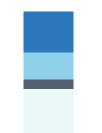


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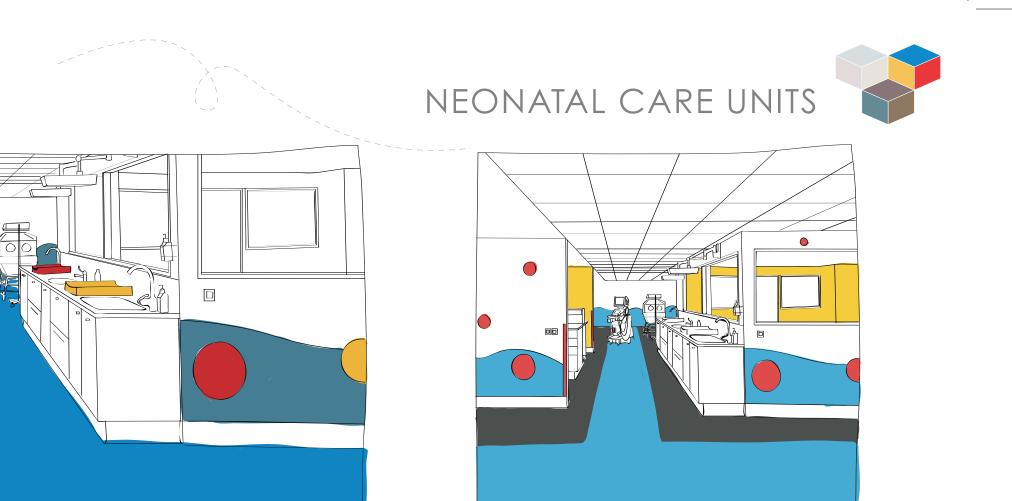


Experiencing a neonatal care unit isn't ever easy for parents. The environment must therefore be reassuring for them. And babies, who aren't actually aware of the concerns of hospitalization, should not be overwhelmed by their parents' stress. The spaces should be welcoming, of course, but also sufficiently stimulating for the care staff, so there must be a balance between comforting and dynamic colours. Harmonious and modern tones are reassuring for parents and a source of pride for the staff.





A blue tone-on-tone environment and light flooring produces a hygienic, calming result. Many studies have shown that blue lowers blood pressure and thus reduces nervous tension.



Blues, even when used at their most intense, are never dominant. On the contrary, they provide freshness and calm.



Using a layout with contrasts offers rhythm for moving through the space and suggests a path for visitors who are eager to find their babies.



S 6005-Y20R



For children at this age, their environment is all about exploration. Patterns, designs and shapes drive this discovery and stimulate the senses.

" Toddlers set out to discover the world. They feel and touch with their bodies and mouths. " Mathieu Gielen, professor of industrial design

The development of these senses occurs through the use of attractive elements; they are attractive visually, or in a tactile sense, as is the case with wood and grains of sand. At this age, children are developing their motor skills, and need to be anchored by the floor, and to have that contact be reassuring and stable. A dark colour should therefore be favoured to aide children in the stages of standing, walking, and running.

The colour range is broadened with **the introduction of secondary colours**. Primary colours are not as attractive for this age group, which is enlarging its area of discoveries. Natural shades — earthy colours, greens, and beiges — are here to bring a sense of harmony. Taken as a whole, this is more subtle, and with diminished contrasts.

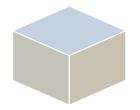


Ages 1–3

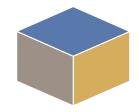
Various colour harmonies aim to help children in their discovery of their environments. At about the age of two, perception of colour is no longer purely sensorimotor. Children acquire object permanence, which means that they understand that something (like colour) continues to exist even if they no longer see it. The proposals vary from calmer to hot/cold combinations, and are of two colours with a neutral or earth base for stability.

" My ideal bedroom looks like a princess with a canopy and a lot of beautiful dresses and a lot of dolls. I imagine the walls will be pink and the floor with colorful flowers. "

Yaëlle, 3 ans



Light pastels and subdued tones (with added black, the tones are more greyish). Pastels tend to spread light out from the base colour.



Alternating cold and hot colours. Secondary colours are associated with a natural shade associated with the earth, providing a harmony that can be described as soft and feminine.



Complimentary contrasts with blue and yellow in subtle shades (a reworking of primary colours), which go in harmony with a neutral shade. The matching notes are more substantial and almost masculine.



Children's bedrooms begin to reflect their personality, even though influenced by the family environment. There is decoration that reflects personal expression. Individualised spaces — little corners of self — allow for an emotional investment in the bedroom.

" At this age, the colour and decoration of the room become more important for the child. "

Simone Sorber, interior designer specialising in environments for children

Walls are an opportunity for creativity. They represent a favoured surface for expression for a child who is now standing. They are adorned with the child's drawings, paintings, and other things that can be stuck or hung there.

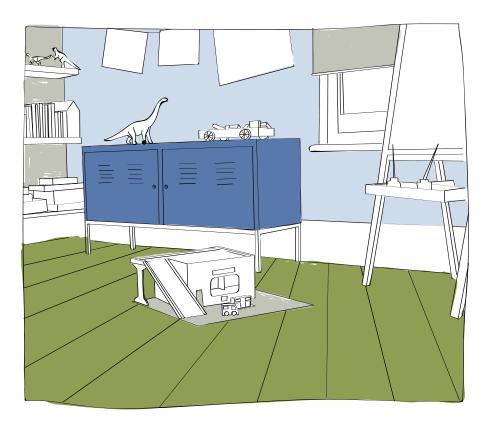
" Ideally, the ceiling is coloured. Light blue is perfect; like fresh air, it brings calm and happiness. "

Fabienne Bruyninckx, colour designer



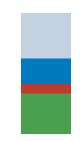
Neutral tones associated with the earth will give a feeling of security and well-being.







Greens on the flooring, like grass, and blues on the walls and even on the ceiling, to symbolise the sky, give a very natural air to a child's bedroom.



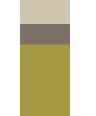
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To create a space that encourages sleep, the décor must take a step back. Here, the goal is above all not to call one's attention but rather to provide a harmonious atmosphere.

Shades of blue and wood tones are recommended because they offer a sense of tranquillity and rest. Darker tones should be chosen, in particular for the ceiling, as they don't reflect light. Flooring should likewise not be of a colour or material that reflects light. Be careful not to create an environment that is too dark, as entering into the space should still be attractive to children.



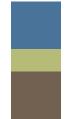


The combination of wooden and green tones gives children a better rest in a nap area.

CHILDCARE CENTRES' NAP AREAS



Yellows and oranges create a warm atmosphere. The ceiling, which is darker, works in contrast to the floor.



Green, wood tones, and blue conjure a sense of water and create a very natural mix so that the children can rest. The blue ceiling opens the space to dreams.

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Beautiful, colourful spaces are an ideal aide for activities at this age. Lively colours promote creativity, emotions, and the unconscious.

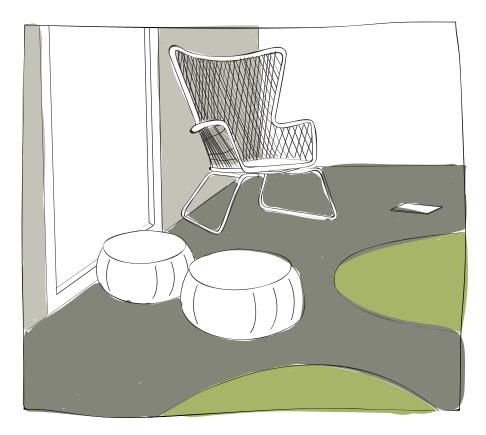
" Use yellow flooring, or floors containing some yellow as well as greens and oranges in order to stimulate motor skills ! "

Simone Sorber, interior designer specialising in environments for children

This is the age when children explore opposites and contrasts, like shiny alternating with matte surfaces, as well as shifts in scale and depth. It's also when they learn about the ordering of things.

" It's better to favour colours that are not too strong in order to create a calm framework that contrasts with the jumble of toys, drawings and children's activities. This also contributes to more calm for the staff who are working with the children. "

Simone Sorber



Grey tones with a hint of green combine superbly with the intense green of the rounded patterns on the floor.

CHILDCARE CENTRES' ACTIVITY ROOMS





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A palette with higher contrast and accented in blue, a creative colour that offers a touch of dynamism to play spaces. A combination of two warm colours, saturated yellow and orange, stimulates optimism and motor skills in this play area.

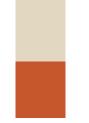
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In a childcare centre or preschool the staff should have access to a space that allows for rest from prep activities. It's important to create a physical and symbolic boundary for adults.

Marking off the space with wooden parquet flooring separates the children's world from that of adults.



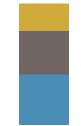


A dark orange accent warms the atmosphere and gives it a more subdued appearance. The parquet flooring helps to symbolise the use of the space, which seems more like a private residence than a workspace.

CHILDCARE CENTRES' STAFF ROOMS



The shade of wood is not left to chance. The flooring's colour should be in harmony with the colours on the walls and the furniture. Wood with a greyish tint works well in contrast with warm colours, whereas wood with a warmer tone is in perfect harmony with colder colours.



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This is a space that welcomes children of every age as well as adults, so it should appeal to a wide audience. The wait is sometimes long, and at times a source of worry, especially for adults.

> " It's a space that should aim for calm and reducing stress. "

Ellen Cools, nurse

The environment should therefore offer sufficient distractions for the young and old alike. Happy colours and shapes can offer, if not a little fun, at least a pleasant and positive environment. Particular attention should be paid to the overall décor — furniture, toys, and flooring — which should be of quality, in order to provide reassurance concerning the effectiveness of care.

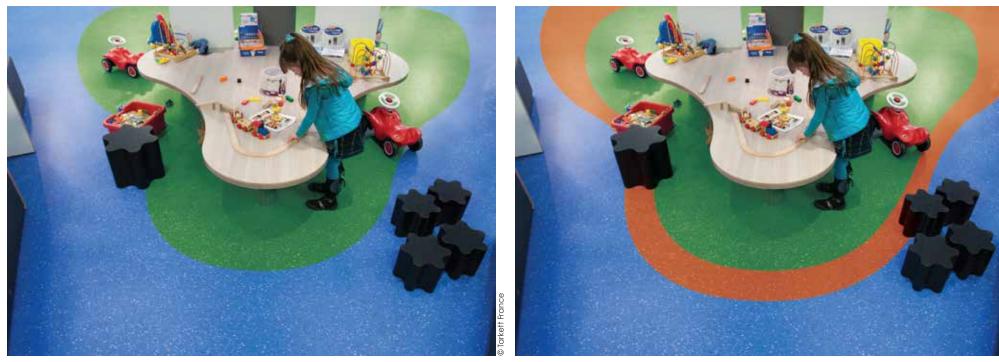
" It's important in medicine that the environment doesn't appear dated. Evidence of aging materials should be dealt with. When one introduces a new piece of equipment it is often white, and thus points out the age of the other equipment, whose whiteness has aged. It's better therefore to opt for off-whites or to play with contrasting colours "

François Lenfant, global design and user experience manager, GE Healthcare



An intense blue colour decreases adrenaline in children and leads to calmer behaviour.





By using intense but close colours, different zones are created in the space without insisting on contrasts.

The introduction of saturated and contrasting colours can help mark off zones in a waiting area, for example, the demarcation of a children's area from the rest of the space.



S 1070-Y60R



At this age, starker taste differences in boys and girls are observed. **Children now clearly express their colour preferences**. Their environment is less linked to nature and introduces **more technical and synthetic material**. Children's imagination is nourished by cartoons, toys, digital things, and brands. They love anecdotes, stories, and signs.

This palette moves into **tertiary colours with sometimes somewhat surprising combinations**, and digital references combined with a slightly greyish brown as a compositional base. Pink comes in different shades in order to adapt equally to both boys and girls.

" In a pink environment, children's drawings are significantly, even — much more positive. This is a sign that children see "Ia vie en rose", a cheerful life in a pink classroom. "

Gabriel Causse, colour designer, author



Ages 3-6

At this age, children begin to predominately show either a calmer or more lively behaviour. It thus becomes more important to have spaces that correspond to each one's personality. The combining of complementary colours helps bring in diverse harmonies that enrich the children's sensory experiences. This is also the age when the first signs of colour blindness and autism are detected.

" I love blue, green and red, it gives me energy. But I don't want black because the night is already black! "

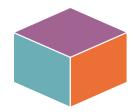
Bastien, 5 ans



A tender harmony is attained through the use of tertiary colours but with less pigment. These shades have the same tonal levels, that is, they have the same amount of white and black. This palette works for calmer children and in particular for autistic children, who don't tolerate contrasts well.



The combination of two complementary tertiary colours (red and green) along with brown lends a calmer balance to the whole.

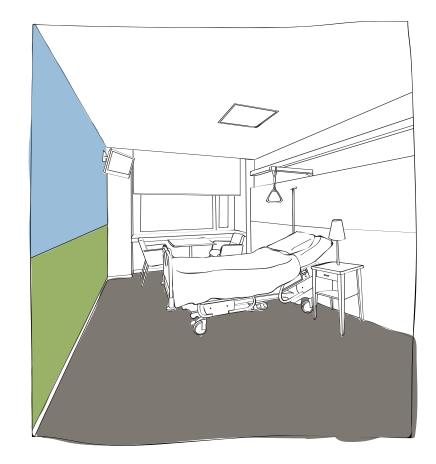


Contrasting tertiary colours. A lively ensemble that is inspired by the social and media-infused world of children (friend groups, brand marketing). This proposition works for lively children and stimulating environments.





In order to de-dramatise the time spent far from home, children's hospital rooms should seem as much as possible like their family environment. The idea of hominess should be expressed through materials and colours. The flooring should not be too light and a parquet-like pattern can lend warmth, or a rug-like flooring pattern can offer distractions and stories that appeal to children of this age. Walls can likewise be a helpful escape for young patients.

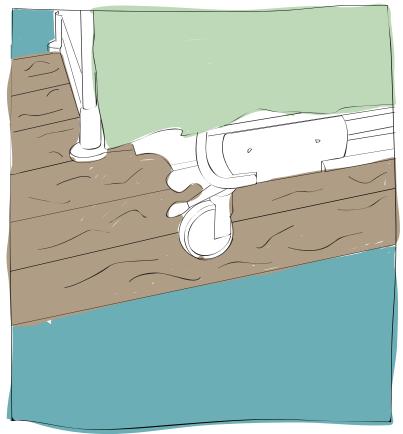


Dark flooring creates contrast and brightens the environment of the room. Light colours evoking nature on the wall opposite the patient can help in healing.





The use of warm, welcoming colours on the wall behind the patient and at the head of the bed offers a pleasant greeting to the visitor.



Light, cool colours can help ensure cleanliness. It's also important to combine them with materials like wood in order to make the space more welcoming.

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Whether in a hospital or a doctor's office, consultation rooms should welcome children by offering 'stories'.

"Once we set up stories around our medical devices we saw about a 40% reduction in the taking of sedatives. And more precisely, it's the parents who are soothed by this environment, and who then transmit less stress to their children. In a global way, it's all about integrating private and impersonal space "

"The impact of appearances is also very relevant. A hospital expresses the image of its technical prowess through the careful setup of its spaces."

François Lenfant of GE Healthcare





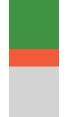
A frieze of characters, playful clues, or small patterns can be enough to help a child dive into an imaginary world, and thus forget about stress or pain.



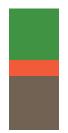
MEDICAL CONSULTATION ROOMS



red Couzy



Darker flooring lends more stability to the space and reduces the risk of reflected light, which can affect the comfort of the medical staff. The use of dark flooring also allows the other colours to stand out more brightly.



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The quality of environments has a direct influence on educational results.

" Schools that have had special attention paid to light and colour are the same ones that have the best testing results and IQ scores (according to the 1983 study by Harry Wohlfarth). "

Lennie Scott-Webber, director of educational environments, Steelcase

" 'Achromatic colours (whites, browns, and greys) should be avoided in classrooms, but are unfortunately the most often used. They are not liked by children, and don't encourage their activity. "

Jean-Gabriel Causse, colour designer and author

It is therefore important to **create a harmonious space that stimulates children's creativity while being careful not to distract them. A firm creative commitment is necessary for classrooms.** It is advisable to chose a maximum of two strong colours. If there are patterns (particularly on the floor), take care that they don't become too present.

Delineating Zones:

" At this age, children need different areas for playing and for working at a table... "

Johan Van Helden, director of design, Eromes



Colours based on yellow pigments stimulate children's motor skills. Flooring is an indispensible part of the demarcation of spaces. Spaces are distinguished by playing with different patterns and contrasts.





For a harmonious result it is essential to create a balance between the colours of the floor, walls and furniture. Sufficient contrast needs to be created between each one of these elements in order to make the space intelligible and accessible to everyone.

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There is a notable difference in the relationships to reading of children aged three and of those aged six. The younger children experience books as objects and touching them is as important as the story. This is the age when we love to touch books! The older children can appreciate reading by itself, and focus on the words and the content. **Reading areas should offer the** calm necessary for concentration.

" Points of light in a darker environment stimulate concentration, whereas diffuse lighting is distracting."

Anne Bessemans, professor of graphic design and researcher



A minimalist setup. Yellow and green bring light into the space, creating a warm and pleasant atmosphere.





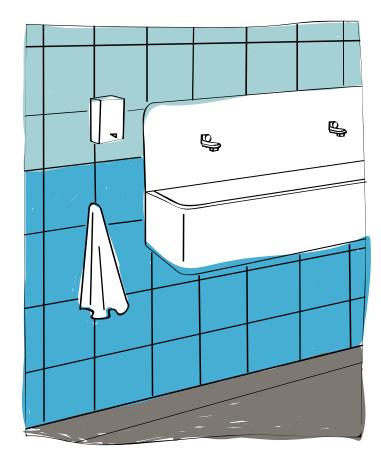
Marc Detiffe

It's possible to mark off a reading area within a classroom by playing with the patterns of the flooring; the two spaces are created through contrasting colours that are in harmony with the existing materials and furniture.



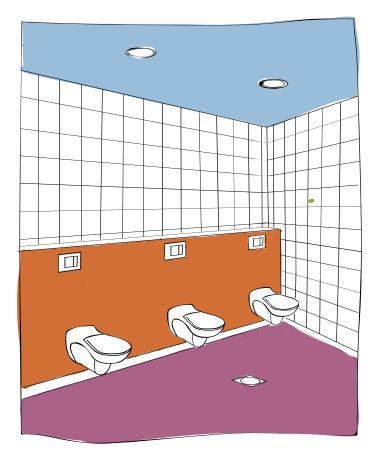


In general children have a lot of apprehension around the question of toilets. Looking beyond just hygiene, it's necessary to reduce the stress of that moment. A playful element should be brought in, such as through the use of light colours, or those similar to children's favourite toys or to fashionable clothes...

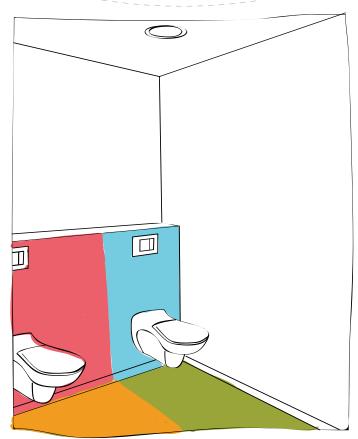


Dark flooring has the advantage of lightening the colour of the tiling and of the restroom installations. This assures children that they are in a light and clean place.





A combination of cold and warm colouring produces a both hygienic and comfortable appearance.



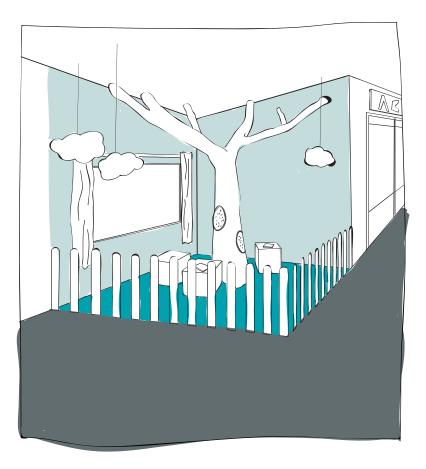
RESTROOMS

The use of contrasting colours can help each child to have the feeling of having his or her own space in this moment — while it is very personal and difficult for each, it becomes less traumatic.

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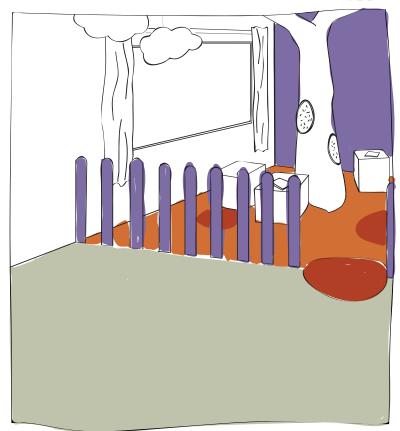


More and more commercial establishments, such as stores, shopping centres and restaurants, are offering areas dedicated to children. Shopping is often done as a family, and **it helps to distract or occupy the younger ones** along with their parents or while the later are doing their shopping. **The development of these spaces creates the opportunity to come up with imaginative flooring**, as it is through flooring that these spaces are first distinguished.



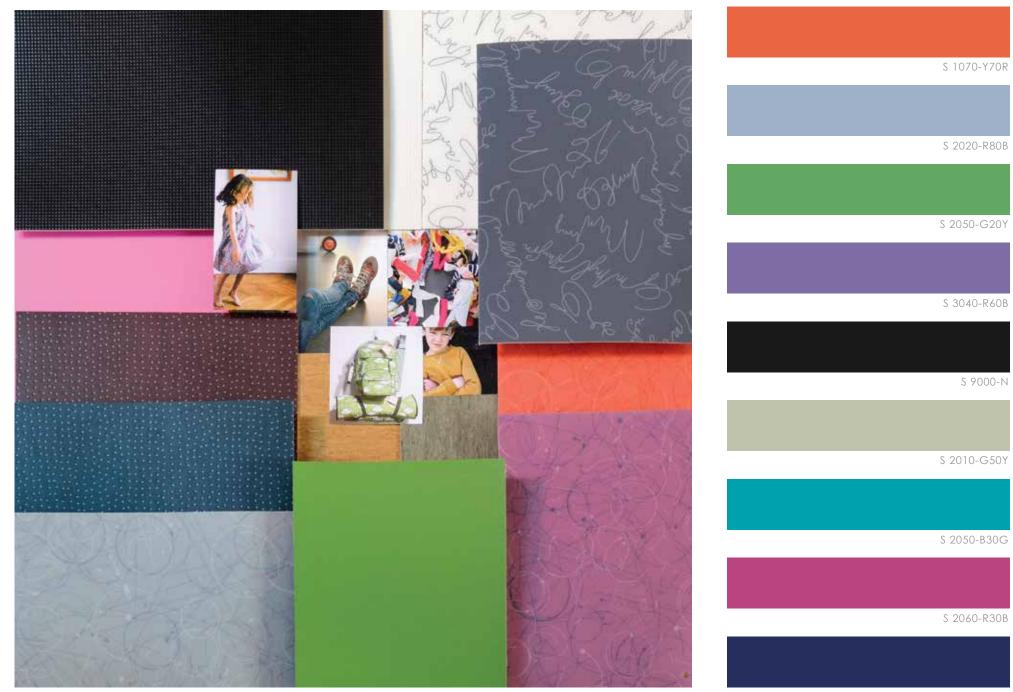
The play area for the children is accentuated by the combination of a dark colour that marks off the space with a contrasting colour on the interior.





Natural flooring around the children's area and a combining of attractive colours help to guide children toward the play space. Light flooring around the area - and a juxtaposition of intense and complementary colours for the whole environment including the walls and ceiling - all help parents and children to easily find the children's area.

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Ages 6

By this age, children begin to have more pronounced tastes. They seek to express themselves through choosing more original colours.

"The qualities of colour for children of this age should respond to their needs for aesthetics, affection, and functionality." Johan Van Helden, director of design, Eromes

More assertive and intense colours show the world of emphasised preferences of children at this age

(a world of manga, fantastical stories, magic, and militaries). There are more complicated geometric designs as well as symbols in the patterns.

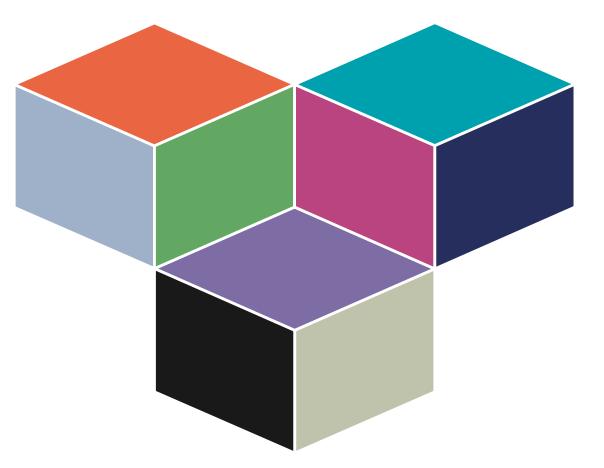
The range of colours is enriched with a true black and with anthracite. The tertiary colours are made up of more lively shades. The colours are cosmic, disco-like, and mystical — as expressed in a dark blue/purple.



Ages 6-12

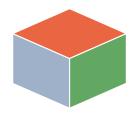
At this age children enter the rebellious pre-teen years. This rebelliousness is also expressed in the rejection of imposed colours. **Children would rather build their own personalities.** They are more 'adult' and want to leave behind childhood references but yet without fully entering adolescence. But they are still more than ever influenced by the media, especially advertising. They have stronger visual memories and absorb fashion — whether to associate themselves with it or reject it.

Colours are significant and directly linked to children's worlds at this age.

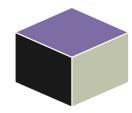


"I would like some pink and blue jean blue on the walls, silver flakes on curtains and pale pink sheets with fluo green writings."

Estelle, 11 ans



A scientific representation of nature, sky, and grass seen through a fluorescent filter; an intense, remarkable nature. Orange, grey, green.



The combination of purple with black calls up a mystical world. These shades go with the fantastical tales that delight children of this age. By combining them with a light, almost whitish grey, we get a greater effect from the contrast.



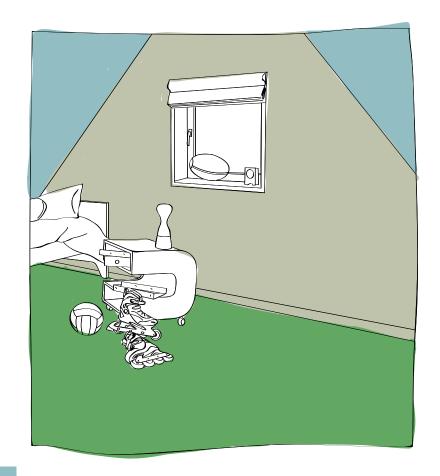
A synthetic, pop-music style ensemble that is also close to video games. The hot and cold contrasts of the three colours recall southern cultures and signify a mix of origins.



At this age, the bedroom is the part of the house to have just to oneself. Children should have the opportunity to express their own personalities at the risk of entering into conflict with their parents. It's an expressive space where children are proud to invite their friends.

The proposed combinations are equally available for girls or boys. Associating pink with black cancels out its feminine side and it becomes acceptable for boys who associate it more with the pop music and manga worlds. The delineation between what is good for girls or for boys doesn't have meaning anymore. Each child should decide his or her preferences and

colour combinations.



Grey with touches of green and blue is an ideal base to combine with blue and intense green. And, blue on the ceiling lends freshness and light to the room.





Hot and cold contrasts are very popular with young people at this age, and create wonderful combinations that are a source of energy and dynamism.



Midnight blue is an extreme colour. It lends itself to combinations with a lot of character and that show off children's personalities.



A school's entrance is a presentation of its image. This 'branding' is even more important since parents have taken up the habit of choosing their schools according to various criteria. It's therefore important to make a good impression with contemporary facilities. A colour palette that is both functional and original to the school is therefore indispensible in signalling the quality of teaching.

The entrance should be welcoming and reassuring, as it makes children want to go to school and to be proud of their establishment. The 6-12 age group should be able to see itself in the choice of colours.





The school's entrance is its business card. Neutral colours in grey tones with a touch of colour are used as guides to facilitate movement through the different parts of the school.





A hallway that is too long can be broken up with a bayadere (pattern of strongly contrasting stripes) to make it not seem as long and become more pleasant. It's important that the choice of colours for the school entrance come out of reflection on the vision and uniqueness of the school itself.



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Allways are often too dark and are dreaded for their crushing crowds; they merit special attention for colour. Light colours, by reflecting more light, can counterbalance a lack of brightness or of natural light. Varying and playing with shades can make spaces more enjoyable and pleasant.

"Directional lines on the floor serve both as decoration and as an aid. An aesthetic that plays between the floor, the walls and the doors will give an exact image of the character of the school. "

Simone Sorber, interior designer specialising in environments for children



A dark floor suggests stability and trust, whereas green adds a sensation of freshness and nature. This colour can also signal directions, secondary routes, and the location of doors.



Applying a light colour to the left side of the hallway and a dark colour to the right side offers an ideal balance for moving children. Rhythmic touches of colour shorten the apparent length of the hallways.



The hot/cold contrast directly appeals to the emotions. A cold colour on the floor lends calm to the foot traffic, and a warm colour on the wall lends a pleasant sunny touch.



It's important to encourage children's concentration and learning by bringing in colours that reflect their emotional world.

"Young children are attracted to warm and lively colours. Nevertheless, while these light, saturated shades are useful for focusing attention, they're not the best vehicles for learning."

Lennie Scott-Webber, director of educational environments, Steelcase

The ideal is to alternate neutral shades with those that are more inspiring for children.

"I recommend painting just one out of the four walls in a classroom: the wall at the students backs. This allows for very strong colour choices on this wall while leaving the other three walls neutral."

Jean-Gabriel Causse, colour designer, author

Introducing colour also incites greater respect for the subject matter.

Note the neutral, nearly white wall behind the screen; a colour contrast that is too strong around the screen would distract children from the contents, and moreover there's a risk that the colour would create an afterglow effect when looking afterwards at white paper. A lightly coloured wall that tends towards grey is a good solution.



Flooring is an ideal medium for lending warmth and cheerfulness through colour. It's best to opt for discrete motifs and to not choose colours that are too light, so as to avoid reflecting the lighting.







It's necessary to find harmony between the furnishings and the flooring; a light-coloured table on dark flooring will call students' attention to their schoolwork - and the opposite would have a reverse effect.





A wall painted in intense colours can be ideal for putting things away. The contrast with the objects and the wall encourages this process. It's important that such a wall not be situated directly facing the students.



Fortified colours can stimulate children's appetites ! There are areas with various ambiances so that students who wish to can have their meal in a calmer area, in a small group, or in a larger group.

Colours have polysensory properties that are very useful for encouraging or mitigating certain feelings, especially in food service. Some colour groups for example evoke sweet or acidic tastes, or calm or noisy environments, or sensations of dryness or humidity.

" In a cafeteria environment, wooden and warm tones stimulate the appetite. A coloured ceiling makes it feel like a real restaurant. "

Johan van Helden, Eromes



A large cafeteria that is set up into different sections gives off the air of a restaurant. The demarcations can be done with colour, materials, and furnishings. Yellowish shades will stimulate children's appetites.





The layout and colour selection should be thought out in terms of harmony. The wooden pattern on the floor is warm and has red tones combined with warm anthracite. The contrasting of orange and dark grey (with a hint of orange) creates a warm atmosphere.



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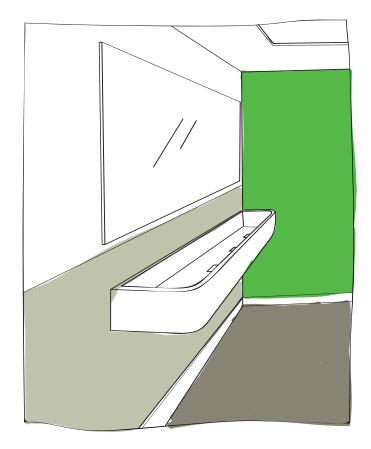
This is a space that can be a cause of just as much fear at this age since children are now coming here on their own. **Cheerful colours can provide enough distraction to let this apprehension go.** The floors are light so as to reflect light and make the space brighter. A lighter-coloured space is more reassuring. In creative terms, it is a space that can express all kinds of whims. In particular, we can be inspired by the restrooms of 'trendy' spaces, which offer challenging surprises !

" For this age group it is recommendable to use unique and surprising combinations in restrooms. "

Johan van Helden, Eromes

" Giving a sense of freshness, clarity, and hygiene is also important for this age group. We can add the most surprising things in quite subtle ways. "

Simone Sorber, interior designer specialising in environments for children



A palette of intense and subdued greens produces a fresh, natural feeling in a restroom.







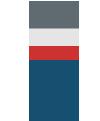
A very dark floor gives the lively colours on the doors more character. The light blue on the ceiling opens the space up and produces a fresh, clear feeling. Doors adorned with unique colours have more personality and thus mark off private spaces. The floor, ceiling and walls are light-coloured in order to reflect light and make the space brighter. The more light, the more reassuring the space is.



This is a space for teachers' work, relaxation, chat, and more personal tasks. It is where teachers draw up the energy to go back to their classes. **Relaxing colours and natural light create an atmosphere that is conducive to rest**. Various light ambiances are offered up to adapt to different personalities. The space that is devoted to posting information can be emphasised with colour for a better layout and to give a sense of order.

In this space a different colour palette is used than that for the children.





A darker ceiling and careful lighting give the space a cosy vibe.





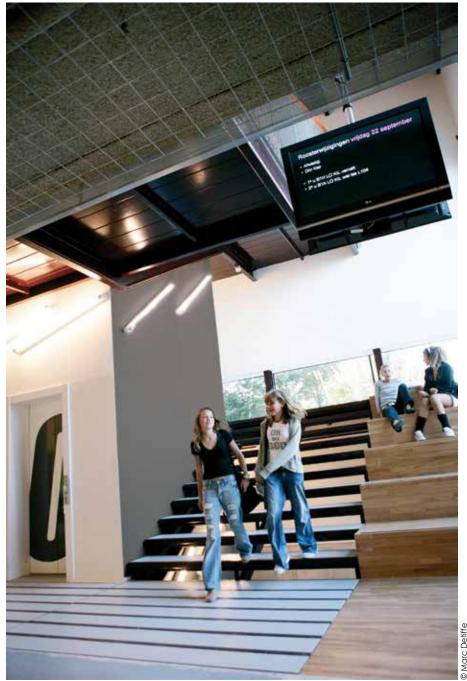




A light grey-blue wall produces a peaceful and relaxing feeling in the lounge area. The strong colour change on the floor signals a clear separation between the lounge and working areas.



A green back wall brings a sense of nature inside. This use of intense colour doesn't take away from comfort, as this is a space in which one doesn't stay for too long.



Ages 12 and up

As adolescence starts, young people's relationships with colours get more complex. They are strongly influenced by fashion and brands, and have very emotional reactions to colour. They love something, then don't love anymore; they want to differentiate themselves from everyone by adopting the tastes of a group....

More than ever, spaces therefore should take into account their environmental and aesthetic preferences and expectations in order to promote their development.

Careful consideration of the spaces that welcome them shows a consideration for the young people themselves.

They are particularly responsive if they are involved in the choices or even the installation of some decorative elements.



Experts' Recommendations For The Best Flooring For Children:



Prof. and Dr. Daniel Oberfeld-Twistel,

Department of Experimental Psychology, University of Gutenberg-Mainz

" Vary colours, saturations, and brightness within spaces ... so as to give every child the opportunity to feel great in a particular space. The question of favourite colours is central. What kind of environment do children want to be in? It's necessary to give them choices, which in turn spark the discovery of preferences and the creation of their own tastes... "

Lennie Scott-Webber,

Director Of Educational Environments, Steelcase

"What would be good for children is if interiors where thought of as envelopes, or cocoons. The flooring is part of a whole; it should be harmoniously integrated with the other elements within the space."

Jean-Gabriel Causse,

Colour Designer And Author Of L'étonnant Pouvoir De La Couleur (The Astonishing Power of Colours)

"I recommend alternating hot and cold colours in classrooms, particularly if children change rooms for each class."

Joke Visschedijk,

Product designer, children's playtools

"We now have more projects that are being co-created with children. This allows us to follow children's tendencies and to not just use stereotyped colours."



François Lenfant,

Global Design And User Experience Manager For Emea, Ge Healthcare

" It's important to set up specific flooring environments ! We can see flooring as a source of information, and use it to coordinate the effects of light and colour. "

Elisabeth Brémond,

Colour Designer And Author Of L'intelligence De La Couleur (Colour Intelligence)

"Flooring intelligently and sensitively coordinates colour. Flooring promotes activity, facilitates finding one's way, organises space, stimulates attention and memory, broadens sensory perception, and develops aesthetic sense and vocabulary."

Hidde Van Dijk,

Leading Product Designer JUMBO

"To not use colour would be a lost opportunity to improve the functionality of play and educational spaces, restrooms, etc. ... Flooring should be seen in a playful way, with sufficiently varied colours and materials. "

Mathieu Gielen,

Professor Design For Children's Play, Tu Delft

"Toys are chosen according to the desires of a particular moment, and for spaces we often choose solutions with a long-term vision in mind - in general for an empty result. This is a mistake!! Diversity should be encouraged in both colours and materials, as this stimulates and inspires children. "



Johan Van Helden,

Director Of Design For School Furniture Products, Eromes

" It's important to explore different combinations of colours and textures in order to enrich experiences with the furnishings. These combinations are envisioned from active or passive standpoints, according to the use of the furnishings. The furnishings' relationship to their environment is not neutral. Colours and textures must be balanced for overall harmony in work spaces. "

Dr Vincent Ramaekers,

Neurologist And Department Head For The Autism Centre In Liège

" If we want to take autism into account, it's recommendable to use soft contrasts and colours with links to nature. The different colours should have the same composition, that is, the same colour strength — the same amount of white and the same amount of black. "

Simone Sorber,

Interior Designer Specialising In Environments For Children

"Remember that children live close to the floor ! These spaces deserve quality treatment; they should be solid, hygienic, familiar, and comfortable — and likewise for their acoustics. These interiors are to be balanced and to intelligently combine the chosen colours and materials. "

Ann Bessemans,

Professor Of Graphic Design And Researcher On How Children With Low Vision Read, And How This Is Affected By Design

" In order to boost children's reading, it's recommendable to avoid black lettering on white paper, and rather to opt for grey lettering on lightly coloured paper, as that helps limit fatigue. The colour gives the stories more clarity. "



Doukje Sel, child psychologist

" It's necessary to ensure that a balance is struck between ease of upkeep, brightness, warmth, safety, and freedom. This is achieved through a good combination of colours, materials, and objects. "

Marij Voeten,

Primary School Teacher

" An orderly classroom creates a calm atmosphere both for the children and for the teachers. This order can be achieved through the colours on the floor, walls, ceiling, and furnishings. This also promotes concentration. "

Ellen Cools,

Head Of The Maternity Department

" The choice depends on the child's situation. The ideal floor for a baby is a discovery about life: colours, contrasts, and tactile material. "

Dr Jean-Louis Delgado,

Paediatrician, Limoux

" The proposed combinations hit an exact match: calming but also stimulating. By modifying children's immediate environment, their separation anxiety is reduced; further on, learning is promoted and stress is reduced in sick children and their parents. Try what Tarkett proposes; these are solutions to be adopted. Congratulations, thank you, and above all keep up the good work. "



MAKING-OF



METHODOLOGY

Research Of Existing Literature Interviews With International Experts Immersion In The World Of Children Creative Workshop Moodboards For Producing Atmospheres Selection Of Colour Palette Range Illustration Of Colour Preferences Approval By International Experts



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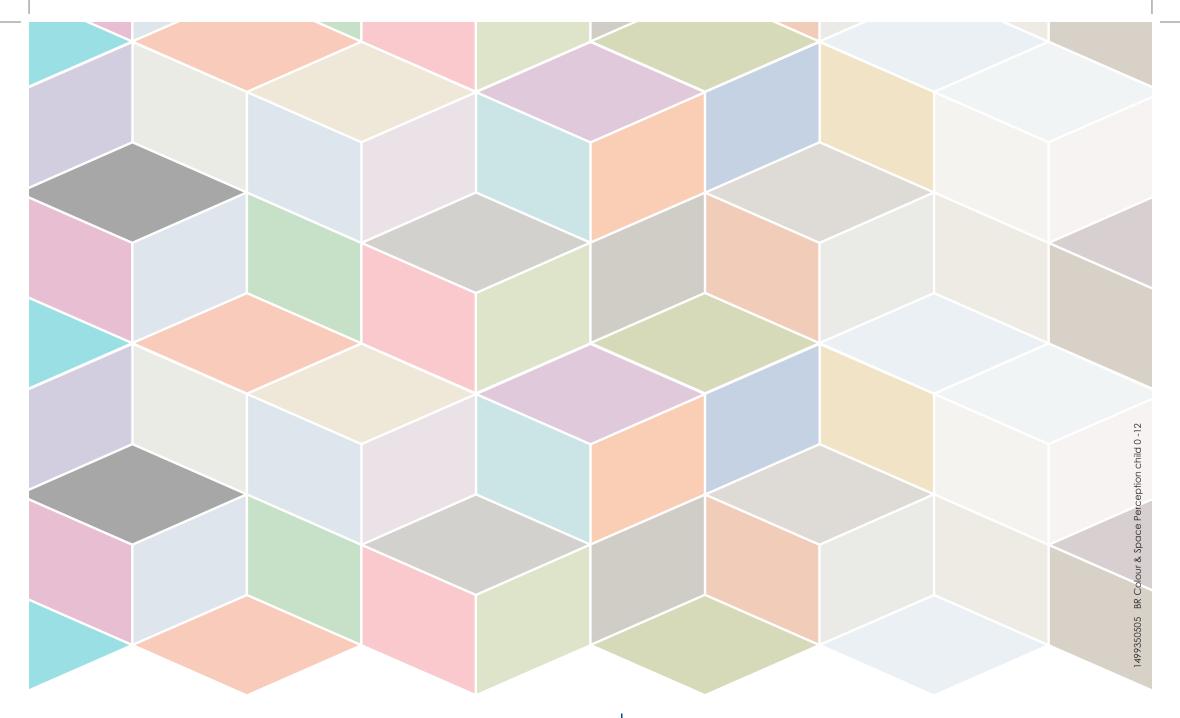
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THE ULTIMATE FLOORING EXPERIENCE