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**Getting the learning environment right** in Early Education





## iresistible tresistible classroom

**Getting the learning environment right** in Early Education

The child does the learning. The teacher facilitates that learning. The environment must support them both. How can Early Education classrooms inspire education?

### How do children learn?

First we'll explore how children learn at this stage in their development. Pages 5–11

### How can classrooms inspire learning?

Then we'll consider how to arrange the available space to stimulate and sustain that learning. Pages 13–23

### Is your classroom beautiful?

Lastly we will reflect on the classroom's aesthetic message. Pages 25–27





### children learn?

Every child is unique: each has their individual personality, strengths, interests and learning style. One enjoys drawing and writing while another has a three-dimensional approach. One is quiet, content to dream, while another 'thinks aloud' and is on the go. There are developmental differences, character differences and gender differences. Adding further complexity, two in ten children arrive with additional challenges – dyslexia, dyspraxia, ADHD, FASD, ASD, CLDD, etc. (Carpenter, 2013) Teachers must get to know each child and provide resources to connect with the many learning styles. Teaching is an intricate skill. Aristotle called it "the highest form of understanding".

**Movement** 

Children need to move. Margaret Donaldson describes movement as "thought in action". (1978) Body and brain develop together, and physical development occurs through using the body, moving it in space and gravity. (White, 2012) Movement gives youngsters the muscle control needed for sitting still. An expert on reading difficulties explains, "Those children who are unable to stay still are showing their balance and motor systems are not yet sufficiently mature..." (Goddard Blythe,

2005) At some schools each day begins with active physical play as many children have been seated in vehicles for some time before arrival.

Children transitioning from Foundation Stage to KS1, particularly boys, will 'turn off' school unless their physicality is acknowledged. They need generous outdoor time each day for large-motor action. (For outdoor ideas, see companion booklet *Lighting the fire*.) Within the classroom too, children need to move about and change position. Some prefer to work lying on the floor or kneeling or standing.

### **Curiosity**

Albert Einstein stated, "I am neither very clever nor especially gifted. I am only very, very curious!" Children are naturally eager to learn about the world and everything in it. When their interest is engaged, they push the boundaries of their knowledge, hungry for more. One child may be intrigued by plants and animals, another by engines and gadgets. Teachers must tune in to each child's curiosity and nurture it through the years of school. Universities today seem more interested in "creative thinking, experimentation and improvisation" than in students' marks. (Beardsworth, 2013) Society needs people with enquiring minds.





### **Imagination**

Imagination's significance cannot be overstated as children are the world's future inventors, physicists, writers, thinkers, fathers and mothers. Imagination enables the 'possibility thinking' essential for innovation. It opens new realms. Imagination is also the bridge to empathy – it takes a mental leap to put oneself in someone else's shoes. For the future of our planet, it is crucial that children learn to care.

"Imagination is not just a cute faculty that children use to weave fantasies: it is one of the most effective tools in the learner's toolbox. Scientists, designers and executives need a powerful imagination just as much as painters and novelists, and it can either be developed, through appropriate experience and encouragement, or left to shrivel up." **Guy Claxton** 

### Creativity

Creativity is central to children's approach to life and learning. Loris Malaguzzi, first head of Italy's Reggio Emilia School, wrote "Creativity should not be considered a separate mental faculty but a characteristic of our way of thinking, knowing, and making choices." He emphasised that children are not "excessively attached to their own ideas, which they construct and reinvent continuously. They are apt to explore, make discoveries, change their points of view..." (Edwards et al, 1998).

Creativity is a continuum.
Initially the child is interested primarily in the process; most Reception pupils are at this phase. A five-year-old might work hard to complete a block tower, only to knock it down and start something new.
Over time the end-product becomes increasingly important; seven-year-olds take pride in results and may want to perfect their technique.

Many youngsters enjoy deconstructing, e.g. dismantling an old radio or typewriter. Releasing their inner detective like this unites creativity and curiosity, bringing great satisfaction. It may lead to hobbies and even to future occupations. (Cockbill, 2013)

"You can't use up creativity.
The more you use, the
more you have."
Maya Angelou

Children who have never had opportunity to 'mess about' tend to feel inhibited, fearful of making mistakes. But those who've had freedom to experiment confidently meet new situations, having learned to persist and try divergent approaches. Determination grows as they solve challenges to accomplish their purpose. "High-tech industries such as NASA's Jet Propulsion Laboratory have found that their best overall problem solvers were master tinkerers in their





youth. They have even altered their hiring policy to give high priority to this play background information." (Brown, 2009)

### **Hands-on experience**

Children in Reception and KS1 think in concrete terms. They are in what Piaget called the pre-operational stage when learning is embedded through direct experience. Teachers who impart maths through cookery or design and technology through woodwork – are rewarded by children's enthusiasm. There is a vast difference between this practical learning and sitting at tables filling out worksheets. When youngsters realise they can make things happen, they become motivated and gain self-esteem – and curriculum subjects become meaningful. Guy Claxton writes, "Playing around with materials or ideas just to see what happens is a powerful way of asking questions". (2002) So the richest learning possibilities are offered by creative and exploratory experiences in which understanding grows naturally across many subjects maths, art, communication and language, science, design and technology. Because interest is roused, teachers can readily expand the experience to introduce the other curriculum areas as well: history, music, geography and English.

### **Play**

Through age seven, play is children's chief mode of developing a disposition for learning. It is how they most readily formulate and communicate ideas. A child's language level depends on many factors – where she is, with whom, how relaxed she feels, etc (Rattley, 2013) – and Vygotsky emphasised that, "In

play, a child is always above his average age, above his daily behaviour; in play, it is as though he were a head taller than himself." (1978) So play is our best vehicle for reaching and working with children at this stage in their development.

Children's transition from Foundation Stage to KS1 is eased if they still have space and time to play each day. Describing the Oxfordshire Transition Project, Julie Fisher writes, "Where high quality play has become a central process for learning in Key Stage 1, standards in many aspects of the curriculum have been raised." She argues that "In play, no one gives boundaries to the learning, so children explore at the very edges of their own experience, reasoning and imagination."

(Fisher, 2010) She also addresses the balance between childinitiated and teacher-led learning – see her book for tips.

"Play is about children learning through perseverance, attention to detail, and concentration characteristics usually associated with work. Play is not only crucial to the way children become self-aware and the way in which they learn the rules of social behaviour; it is also fundamental to intellectual development."

Welsh Foundation Phase Framework





Play builds language skills as children share ideas, plan, discuss and negotiate. In schools with a high proportion of English as an additional language, verbal communication is difficult – yet teachers report that students communicate freely through play.

Children come to grips with important events by re-enacting them in play. 20th century psychologist Winnicott believed creativity is what gives life meaning and said, "It is... perhaps only in playing that the child is free to be creative." He saw play as the forerunner of art, sport, hobbies, conversation and humour. (1971) Perhaps this explains why creative writing is almost impossible for children who have never played. (Morgan, 2013)

### Benefits to the teacher

The benefits of play and processbased learning are obvious from the child's perspective. There are also definite benefits to the teacher. If much of your class is involved in self-initiated activity, you have time to teach small groups and even to step back and observe. Focus on any corner of the room and consider, "What are my students learning?" The lessons may diverge from what you had envisioned but may be equally valuable. Perhaps you'd hoped two individuals would gain experience of properties of matter at the sand table but had not foreseen the problemsolving, physics, vocabulary, discussion of number, shape, space and measure, and even geography and map-making that developed as well. (Twani, 2013)

Such observations increase your knowledge of each child. They also give you confidence to explain the advantages of active learning to parents.

"Play is unpredictable, but few of its surprises lie outside the skills and concepts we will want Year 1 and Year 2 children to learn. The learning that emerges is often of a very high order. Once the teacher is competent at evaluating it, play provides a rich source of information for planning the rest of the curriculum."

Julie Fisher

Catherine Keith, head of **Peter Gladwin Primary School** in Brighton, says, "I'm interested in children becoming creative thinkers. We've moved away from compartmentalised subjects and provide a range of activities to meet a variety of learning styles. Children are active in their learning and develop responsibility and independence. Our whole provision is about creating an environment that enables them to work in that way. In so doing, we've raised standards in terms of children's attainment. It's been very powerful."





### classrooms inspire learning?

The first step in arranging the classroom to support deep-level learning is to regard it from a child's-eye view. Imagine yourself as a six-year-old standing in the doorway and ponder what the room communicates. Does it entice you to enter and explore? Or does it say that this is a place where you must give a quiet sigh and hold yourself in check?

### "The environment is the real curriculum. To assume it is ever neutral is illusory." Anita Olds

The environment is sometimes referred to as the 'third teacher' because a truly enabling classroom becomes a friend to the children and your own best assistant. So get inspired and think through the space in a child-centred frame of mind. This will be an exciting enjoyable process, but there are some serious issues to address first, such as: tables and chairs, storage and display, flexibility, and the importance of avoiding clutter.

### **Tables and chairs**

In most classrooms, if there is a table and chair per child there will be insufficient space for active learning. Fortunately, few tables are necessary in Reception classrooms; and many Year 1 and 2 teachers have discovered that if formal maths and writing lessons are undertaken in small-group sessions (where children learn best), the entire class never needs to be seated at tables at the same time. (Fisher, 2010)

Any remaining tables should have multiple uses and be lightweight, easy to move. Height-adjustable MultiTables

are ideal; for students with additional needs they are essential. Not only can the table be quickly raised or lowered, its angle may be altered as well to give the special needs child more control - yet importantly the table does not look "different". (Rattley, 2013) Chairs must support good posture and be the right size so children can rest their feet comfortably on the floor. The relationship between chair and table heights matter too – no one can function with their table at chest level (or in their lap). A 20 cm differential from seat to table top works best.





### **Flexibility**

Children's interests and knowledge are continually changing and developing. Your classroom's physical set-up must be fluid as well, to sustain this culture of enquiry and provide ever new challenges. (Carpenter, 2013) Room arrangement that never changes becomes like wallpaper that we don't even see after a while, but a fresh layout can revive interest. Just as individuals need 'elbow room', the learning environment wants to occasionally shift within its space – to breathe, move about and get comfortable.

How can a classroom's set-up be flexible? The main thing is to use movable shelving rather than built-in units. (Olds, 2000) Moving the shelves allows you to transform the room for some special occasion, emphasise your current theme or foster a particular activity. For example, you might enlarge the role play area one term for a group that's passionate about drama or expand the creative area if your TA is an art enthusiast.

Changing your furniture layout may even influence behaviour. When Benedict Primary School in South London moved their foundation stage into a new build, some children perceived the large open room as an invitation to run, causing continual disruption and conflict. Foundation stage leader Julie Hills says her team discussed the problem - and then solved it, by positioning shelves and panels to section the space into smaller contained areas. There was an immediate difference. After the children's initial excitement over a new arrangement, the classroom calmed to a peaceful hum as they settled into constructive activity. (2013)

If your class includes children with special needs, you will particularly appreciate being able to reconfigure your room. You might wish to set up a tranquil corner to support a student with ADHD, for instance, or widen the entrance to your book area for a child in a wheelchair or walker. Children with autism or Foetal Alcohol Syndrome Disorder need protection from distraction; visual barriers are helpful but must be easy to adjust or dismantle as the child progresses so again movable shelves and panels are preferable to fixed partitions. (Rattley, 2013)

### **Storage and display**

As well as partitioning the room, shelves of course provide storage. Child-height shelves are best so pupils can access materials independently – helping them think for themselves and freeing your time from fetching and carrying. Pinboard on the backs of the shelves facilitates child-height display that identifies each area and celebrates children's achievements. Students'

confidence grows as they help maintain these displays, which should be changed often to remain relevant.

### **Avoid clutter**

An excess of furniture, teaching resources, games and toys wastes space and causes confusion. When children have too much choice, they flit between one occupation and the next without becoming deeply involved in anything. So bear in mind that often 'less is more' – fewer materials, attractively organised, give a clearer sense of what's on offer. Equipment that is simple yet imaginative and beautiful intrigues children and invites them to explore.

### **Context and content**

When the *context* or physical set-up in the classroom is activity-based, the *content* can continually be guided to more challenging levels. (Twani, 2013) Children playing with water may not notice that you have introduced graduated cylinders and other implements that lead them to measure and compare amounts or that you are asking questions that provoke further experimentation and thinking.





A quick glance shows children having fun; a closer observation reveals true education.

### **Continuous provision**

Continuous provision, meaning dividing a classroom into activity areas, is the most natural way to provide this context for learning. This is the 'playful exciting' part, the step that makes your room enticing from a child's perspective. You'll probably want your tables in the centre of the room (where adults work with children) and the activity areas round the edge. These activity areas do not represent curriculum subjects; instead, they are areas that intrigue children. (Robertson, 2013) Rather than setting up writing or maths areas – as these core subjects are served throughout – you might keep a maths trolley that can be wheeled to any zone, and literacy 'corners' (holding paper and writing tools) to set on any shelf or table.

"Words and numbers are meaningless unless children have the underlying concepts which these symbols represent... children learn these concepts best by active, and yes repetitive, engagement with manipulative materials."

David Elkind

Continuous provision supports varying learning styles. Malaguzzi's poem *The Hundred Languages of Children* explains that youngsters express themselves in countless ways. In an empowering environment, they become acquainted with many different 'languages' and discover which they feel comfortable with. Some will find their forte in block play, some in role play, others in the multipurpose workshop and so on.

Crossover between activity areas is natural. A child making spectacles in the workshop for role play, or bringing pebbles from the investigative area to decorate a block tower in the construction area, is making intelligent connections. This should be encouraged – after all, the goal of education is for children to lead their own learning forward!

To plan classroom layout, draw the room on graph paper and make templates of your furniture, to scale, to arrange on this grid. For your new build or refurbishment, Community Playthings has a free room layout service.

Even with reduced numbers of tables, not every classroom will have space for all the activity areas detailed below; in that case, decide which are most important for your current cohort. You might consider rearranging the room between terms to offer new options.





### **Book** area

The book area should be situated in the quietest corner. Children learn to love books when are they provided in a comfortable appealing space, displayed in such a way that youngsters recognise their favourites. An arched entry and fabric overhead will invite children in, and soft seating lends a homely feel. Books should be attractively presented throughout the room as well.

### **Construction area**

The construction area for block play and small world play should be protected (so children's creations aren't bumped) by shelves that hold the blocks and other open-ended materials.

Bruner (1972) suggests that constructive play combines deep problem solving with very creative thinking.

Many children who have difficulty writing show remarkable dexterity with blocks; in the construction area they can practice finemotor skills in a way they are at home with. Their small world narratives are frequently inspired by stories they've heard or experiences they have had. (Marin, 2004)

Both block play and writing are forms of symbolic representation: When we write, our marks on the paper represent ideas, and youngsters creating with blocks are representing ideas as well. Children need to express themselves in concrete ways before progressing to abstract symbolism. Through block play, they build their own firm foundation for literacy.

You can use blocks to introduce concepts like metaphor. Pick up a block and say, "This is a tablet!" while typing on it. Then pass the block to a child who says, "This is an ice cream!" pretends to lick it, and passes it on, etc. Next time round, put the block to your ear and

say "This is a ..." letting the children guess "phone!" or whatever is being acted, to fill in the blank. This game can lead to poetry or creative writing. (Robertson, 2013)

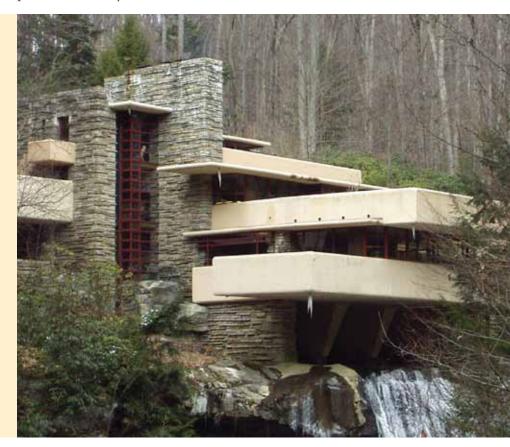
"Block play could form the core of your curriculum – everything could be built around blocks!"

Karen Miller

Block play provides concrete mathematical experience: counting, adding, subtracting, multiplication, division, weight, length, width, volume, shape, structure, design, symmetry, proportion... It's easy for your pupils to understand 'fractions' once they've noticed that one block is half or quarter or eighth the size of another. (Gura, 1992)

Blocks can even enhance history and geography lessons, as demonstrated by a class who built Bodiam Castle when learning British

Fallingwater is the bestknown residence designed by American architect Frank Lloyd Wright who said he learned the "geometry of architecture" in childhood. Block play taught him the basic physics that ultimately led to this unusual cantilevered structure. Children today gain similar understandings, learning about centres of gravity and discovering how to achieve balance through the trial-and-error of block play.





history and Jerusalem when studying the Middle East.

Be sure to display relevant books in the construction zone. A handy supply of clipboards, paper, pencils and measuring tapes is useful for teachers as well as for students, for instance to demonstrate how to work out sums on paper.

Large hollow blocks are popular too; using them, pupils combine construction with role play, and both boys and girls become enthusiastically involved. Hollow blocks will be used to build everything from ships to shops. Because of space constraints, they are usually used outdoors.

### Role play area

Social interaction and imagination flourish in the role play area. Arches, window panels and mirrors enhance dramatic play, and small nooks attract children. This zone can be expanded at times or moved outdoors to give drama the widest possible scope. You'll want a wheeled storage unit for dress-ups, shoes, handbags, fabric etc. Costumes need not be elaborate; parents are usually happy to donate. With a few oddments a child can be anything from fireman to fairy.

Child-sized furniture in the role play area tells children, "This is for you!" Use versatile furniture, as the role play area might be bedroom or kitchen, doctors' surgery or garden centre. Offer open-ended materials such as corks, acorns, clothes pegs, lids and scraps of cloth which become anything in the hands of a child. Remember to include relevant books plus writing materials so children can make a shopping list or take a phone message. Role play connects with any topic and is a timetested favourite through KS1.

### Wet play area

Your wet play area allows for experimentation with water, sand and other malleable materials. It's obvious that wet play teaches science and maths, but it can just as easily lead into music or poetry. Consider all the vocabulary inspired by the wetness, coolness, ripples, reflections, calmness or splashiness of water! You might start by asking, "What are you thinking about this water?" A child may have one idea or fifty – there is no right or wrong answer. (Robertson, 2013)

Ideally, you'll want a water table and a sand table. If there's not enough space, alternate periodically. Sand is amazingly versatile – there is a world of difference in the ways damp sand and dry sand can be used. Some schools have common areas where several classes share sand and water.

Children build miniature environments and act out

small-world narratives in the sand tray, much as in the construction area. Story lines can be developed individually or with a group. Initially, you might model building the plot and sequencing the story so children learn concepts of "First... next... then... finally". (Robertson, 2013) Or the sand table can be used as a writing space; the teacher could suggest, "How many ways can you make the alphabet in sand?" Letters might be written with a stick, created 3D with damp sand, 'drawn' with pebbles, etc. Imagination leads to ever new ideas.

Children often create artwork in sand, designing mosaics with seashells or even daisies and dandelions from the playground. What an opportunity to explain about mosaics of ancient Aztec, Chinese or Greek civilisations! History comes alive for children when it connects with their own experience.





### **Investigative area**

Wet play is sometimes incorporated in a broader investigative area, the home of magnets, magnifying glasses, prisms, pulleys, funnels and other intriguing tools. A nature display, anything from autumn bouquet to worm farm or aquarium, allows students and teacher to discover fascinating wonders together. Children love to help create the nature display season by season. Many enjoy making collections of seashells, seed pods, conkers, rocks, etc.

### Multi-purpose workshop

A Multi-purpose workshop is often combined with art. A woodwork bench or "tinkering table" is basic here, providing the surface where children can experiment, invent and construct. This is true design and technology. (Robertson, 2013) The myth of children's short attention span is dispelled when they are pursuing their own ideas! It's important for an adult to be available because youngsters need someone they can turn to with difficulties - or to share the joy of discovery or accomplishment.

A storage unit is essential here, kitted with standard craft products plus wire, string, tape, elastic bands, glue, dowels, tools, various kinds of hardware and cast-off bits presented as a smorgasbord to whet creative appetites. Malleable materials such as clay and plasticene could be included as well.

"Two 4-year-old boys made a robot with recycled materials in the workshop area. They wanted the robot to have flashing eyes so they moved to the investigative area where they found batteries, crocodile clips and light bulbs. Using their previous knowledge of these materials and a small amount of adult help they succeeded in lighting up the robot's eyes." **Helen Tovey** 

One Year 2 teacher was amazed at the creativity unleashed when she acquired a craft cart and set up a tinkering table. Formerly she would organise art projects with predetermined outcomes, but now she allows

children to take initiative and find their own methods. They always notice anything she adds to the cart and are quick to see its potential, frequently formulating a plan long before craft time and getting on with it at the first opportunity. "Children who previously were bored, or frustrated when they felt unable to reach my (or their own) expectations, now eagerly visit the workshop and get to work with intense concentration. It's exciting to see them figure out how to achieve their goals, often through spontaneous teamwork." On the rare occasions when she does organise a formal 'project', it proceeds more quickly than she'd anticipated, to a far higher standard, thanks to what each child has learned through selfmotivated effort. (Fischli, 2013)





### Is your belassroom tiful?

Just as every culture has its flavour, and individuals are unique, so each school - and indeed each room - has its own character. The teacher's values are apparent from the threshold. Furniture placed in stiff rows establishes an institutional feel; plastic furnishings suggest a shallow approach; garish or cartoony décor conveys a patronising attitude; but an aesthetically lovely place communicates respect - for childhood and for education. In schools with creative touches in every corner, it's obvious that staff love their

work. Natural objects, crafted wooden furniture, varying light levels, fabrics that soften hard corners, wicker baskets and living plants are elements that articulate a respectful child-friendly ethos. (Jarman, 2009)

"There should be a clear sense of order and aesthetic harmony within the environment as a whole."

Mark Dudek, architect

Children at Foundation and KS1 levels occasionally need to snuggle into a private haven, especially during times of transition, and they seem to prefer curves to straight lines and right angles. (Rimes, 2002) Such curves – created with furniture, fabric or plants – counterbalance the building's straight lines and suggest welcoming open arms.

Jill Mahon, head of **Dartington CE Primary School**, understands that children have an aesthetic sense even if they don't articulate it. She worked closely with her architect during the planning process and she chose crafted wood furniture "to create calm beauty within each classroom". The lovely touches throughout the school show that her vision was effectively communicated to the staff, and through them to the children.





### A peaceful place

Make your classroom a peaceful place, an oasis that children want to enter. Avoid the visual overload of walls plastered with displays - rather than exhibiting 30 paintings, simply make sure each child's work is put up at some time. Likewise it is difficult to cope, especially for children on the autistic spectrum, in a room where everyone is wearing red, sitting on red chairs at red tables. While loud colours in excess are distracting (or even exhausting), nature demonstrates a peaceful environment, where vast expanses like oceans, moors and sky are varying shades of calm colours. Intense hues come in small accents or fleeting moments – a flower, butterfly or sunset. (Rimes, 2002) Following this train of thought, a Devon head teacher specified creamcoloured walls and wooden furniture throughout her new school. She said this neutral backdrop "lets me paint the picture!" Children's artwork, tastefully displayed, and intriguing artefacts or cultural fabrics add touches of colour that highlight specific areas.

If the water table is by a window, sunlight will reflect off the water onto walls and ceiling in soothing ripple patterns, subtly supporting emotional wellbeing. Similar effects might be created by a rattan window screen moving in the breeze – fresh air benefits everyone, and interplay of light and shadow helps both adults and children relax.

### Décor

Décor creates variation within the whole, as well as articulating pedagogy. The same wooden arch might be draped with exuberant African fabric in the role play area and dreamy pastel voile in the book corner, supporting a different ambience in each. You might place a bright light over the multipurpose workshop and a cosy bedside lamp in the book nook.

"It is not the clay the potter throws that forms the essence of the vessel, but the space within it." Lao-Tzu





### Creative and irresistible

In a creative classroom, children quickly feel at home and grasp the possibilities for learning and discovery. The environment stimulates curiosity, initiative, creativity, confidence, interaction and perseverance. These are the *how* of deep-level learning. The *what* of learning – science, maths, language, etc – takes place as the teacher tunes into, builds on and guides children's interests.

Good classroom arrangement empowers children to make choices and think for themselves. It frees you to set your teaching priorities. So release your own imagination to set up an irresistible classroom where teaching will be a joy!

"The pleasure of finding things out and of imagining what might be is a major purpose of

childhood. Children are scientists and creators at the same time, with feelings and thinking woven inextricably together. We need to feed children's curiosity, fascination, wonder, awe and their deep drive to learn and make meaning."

Jan White

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