Education Specifications

Learning starts with Physiology

Provide for and exceed a child's needs.

When thinking about a child's environment, their total environment must be considered, including home, neighborhood, and school. Ideally, each environment is positive; unfortunately, this is not always the case. Environmental threats like unstable homes and unsafe neighborhoods can lead to malnutrition, poor sleep, and stress. For some students, basic needs are not always met outside of school. Therefore it is important for design to intentionally create school and classroom environments that intentionally provide for a child's basic needs.

How will we ensure that our students are healthy? ***Be responsive to each student's needs.***

Air

Because a child's body is still maturing, their organs and immune system are more sensitive than that of an adult. Due to higher rates of metabolism and physical activity, a child's lungs are more sensitive to airborne contaminants. In addition, children spend more time on the floor and rarely wash their hands before eating.

Sound

Elementary school is a critical time when students are developing receptive and expressive language skills, therefore acoustics must be done right. The ability to hear effectively affects speech and oral comprehension. It is important for children to hear speech clearly, understand language constructs, and often requires students to fill in missing words from context. Because young children are developing their vocabulary, their ability to comprehend speech despite partial hearing can be limiting. Learning disabilities, learning English as a second language, and temporary hearing loss from illness further hinder the situation.

Light

Consider the profound influence of natural light. It is the most influential factor in the maintenance of circadian rhythms and the body's natural clock. Daylight is linked to cortisol levels which influences a child's ability to focus. Daylight is necessary for physical growth, a factor compounded by the amount of time a child spends in school. The influence extends further. In 1999, Herschong Mahone Group conducted a comprehensive study analyzing test scores of more than 21,000 students across three districts in California, Colorado and Washington. The results showed a direct correlation between the amount of daylight and student performance. Consider the following: Students in classrooms with the most daylight improved 20% faster on math and 26% faster on reading tests. The rate of improvement was 15–23% faster in classrooms with the most window area and 19–20% faster in those with skylights.

Education Specifications

The Learning Environment is Evolving

Be sensitive to the way students learn

The educational experiences of today's students are different than the ones many of us experienced as children. As research provides better information about teaching and learning, the "spirit of the times" change with each successive generation. The learning environment must reflect and support student needs of today.

There is an ongoing shift from a teacher-centered lecture only model to a student-centered, active-engagement environment. Educators understand students require a diversity of learning experiences. As a result, the role of the teacher changes from the one who solely imparts knowledge to one who also acts as a facilitator. The shift is precipitated by a fundamental belief that children exhibit multiple intelligences, and children learn and respond differently.

Direct instruction of singular subjects may no longer remain the only method available for student learning experiences. While direct instruction remains important, students today are presented with a much greater range of options. Project-based, collaborative, and self-directed learning are integral to the learning experience. Subjects become naturally integrated, relevant, and may be presented in a variety of ways. Students learn to work independently and together. Students who receive instruction in their preferred learning style, while also learning to collaborate and communicate with others, are learning how to learn. They become life-long, self-directed learners.

Before discussing the built environment, let us acknowledge some of the changes happening in classrooms today. Acknowledging these changes is not meant as reference to a specific pedagogy but to the fluidity of learning, and more importantly, to a broad reorientation between teacher and student.

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Education Specifications
Learning in Inquiry-Based Environments

Teachers are Facilitators and Mentors

Imagine an inquiry-based environment where the curriculum is framed as a project such as a sixth-grade class divided into groups and tasked with designing and marketing a new surfboard. To complete the project, students learn physics, material properties, business, and communication skills. Projects are open ended and designed using themes or essential questions that students cannot answer or complete with prior knowledge alone. Students must construct knowledge while working through the project either alone or in groups. The project requires students to draw upon and make connections between multiple subject areas.

Real world problem solving offers opportunities to work alone while others may require collaboratively working together. Working independently in self-directed study, students learn to make decisions, solve problems, and ultimately form their own positions. Working together in a collaborative group, students learn how to share their position with others and how to evaluate the position of others. They learn to see the world from multiple points of view. By focusing on investigation and decision making, the responsibility of learning rests with the students. Working this way shapes students' knowledge, skills, and attitudes. Students learn how to think, and more importantly, they learn to reflect on the process, and how that process results in a solution. Therefore, classrooms and schools today, design is conducive to inquiry-based learning experiences.

This project-based, student-centered approach to learning does not discount the important role of the teacher. As facilitator and mentor, the teacher is more important than ever. Curriculum design, instructional scaffolding, and maintaining an intimate connection with the learning style and pathway of students are but a few of the aspects to consider when creating an inquiry-based learning environment that fully engages the student in the process.

Creativity is Integral

Returning to the surfboard project mentioned above only highlights or scratches the surface of the qualities and characteristics of an inquiry-based environment. It suggests and encourages the possibilities of embracing creativity and innovation. By integrating art with science and math, students engage with different subject areas, utilize a variety of thinking processes, as they learn to naturally move more fluidly between them all. Working in one mode not only informs the other, it makes developing more creative solutions all the more possible.

Presented with the right tools and information, students are able to make discoveries. They learn to actively form their own thoughts, feelings, and impressions in response to the tools at hand. When students are given a degree of discovery, choice, and creativity, the work becomes more meaningful, and the learning becomes more robust.
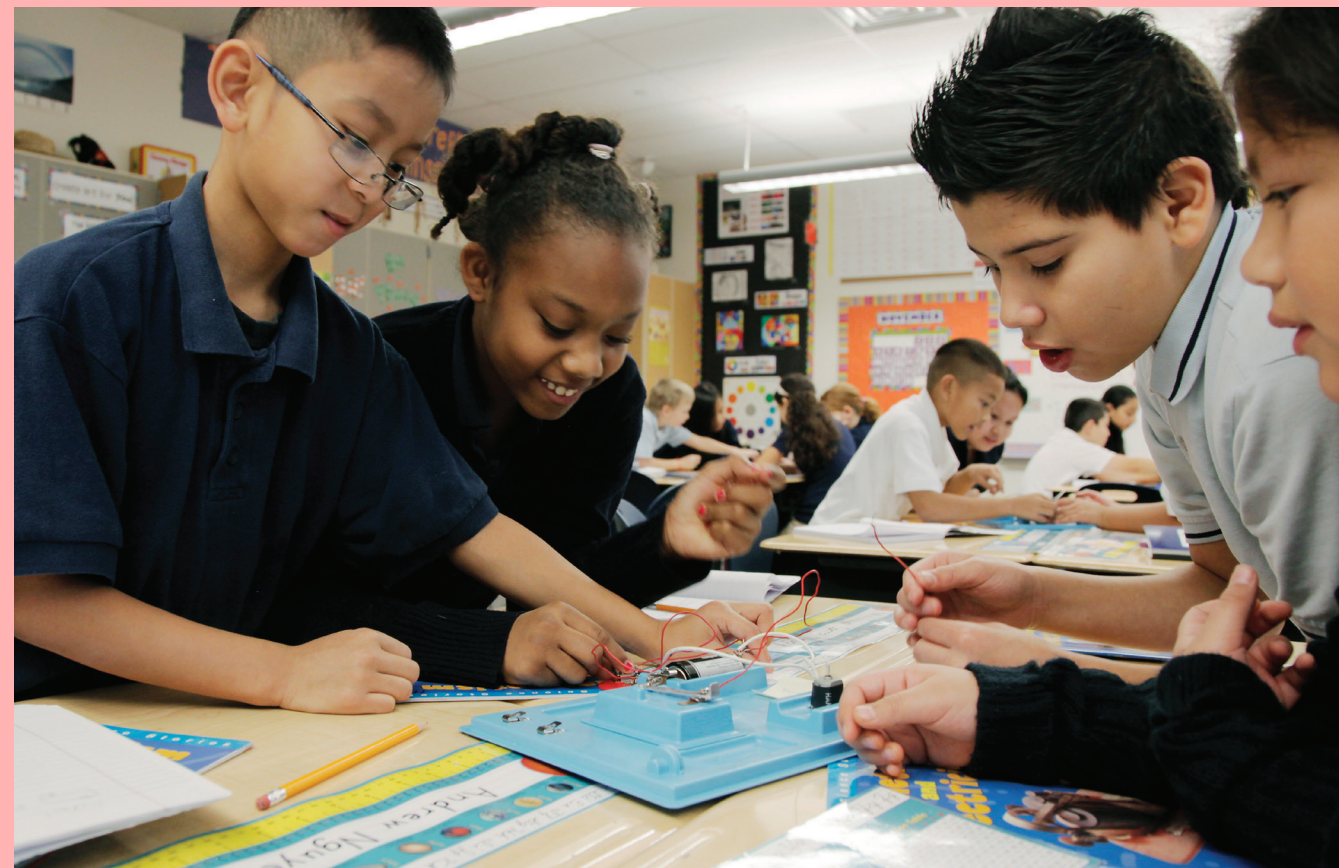
Education Specifications
Learning on Your Own Path

Foster meaningful learning experiences for all students

Fostering and supporting life-long, self-directed learners prepares students to be both college and career ready and is the end goal. And it is acceptable for the path taken to be different for every child. Every student is unique and learns differently, thus creating environments for all learners becomes even more important. Schools and classrooms intentionally constructed to support a variety of learning styles, offers multiple methods of presentation, and affords students multiple options for their active participation and expression better meets the diverse needs of students today. The importance of variety is two-fold: students stretch themselves in their dominant modes while being exposed to and developing non-dominant ones at the same time.

Although children in schools today are approximately within the same age range, the diverse needs of students is actually greater today than those of children once assembled in one room schoolhouses. Differentiation is not a different curriculum or content delivered to students within the same classroom. It means providing a multitude of approaches and strategies to a variety of student learning styles, student interests, and rates and complexities of each student's skill and abilities of learning.

Differentiated classrooms do hold all students to high standards, expectations, and outcomes. Teachers are responsive to their learners' needs. For example, teachers providing differentiated instruction use time flexibly, utilize a range of instructional strategies, and take into account how the classroom environment shapes and supports student learning. The content, product or process utilized to teach and learn the content are all areas teachers may differentiate. It is about teachers appreciating, respecting, and responding to students as individuals. Providing differentiated instruction attends to both student similarities and differences. It is anything but a one-size-fits all or mechanical instructional design and delivery approach and, as such, requires the ability to utilize inside and outside learning space, and affords individual, small group, and large group areas to facilitate teaching and learning. The goal of a differentiated classroom is to maximize student growth and individual success.

Education Specifications

Learning is Flexible and Agile

Support a variety of learning styles

As education shifts from a teacher-centered model to more student-centered, supporting a variety of learning typologies including active, self-directed, and project-based learning in addition to standard instruction must all be considered. In the same day, students may collaborate in small groups early in the morning, watch a presentation later in the morning, study in an independent self-directed fashion in the afternoon, and play a whole class game at the end of the day—all within the same space. Using this illustration, the classroom performs like a design studio. It supports a range of group sizes in a variety of configurations. The example supports a variety of working styles, utilizes traditional resources to read and write, to offering technology tools, to messy, hands-on projects. In addition to facilitating variety, the classroom must be easily and quickly reconfigured by both students and teachers alike. Thus, to support a student-centered model classroom agility is essential.

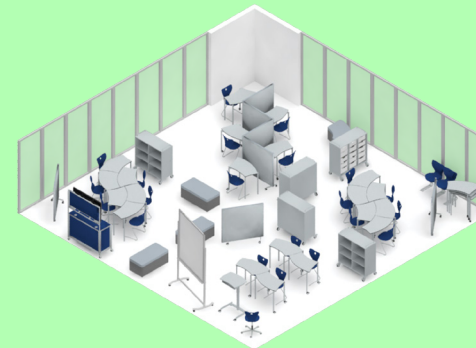How will we ensure that our students are continuously challenged?

The Multimodal Classroom

Make the classroom agile. Furnishings and systems enable rapid reconfiguration of space.


Project Introduction: Presentation

In the morning, the teacher introduces students to the project. Every student has at least one "elbow partner" for "turn and talks".

Project Prepartion: Small Group

After the presentation, students rearrange the classroom for small group work. They discuss parameters, formulate questions, prepare and gather resources for the project. The teacher quickly visits each of the groups and offers feedback.
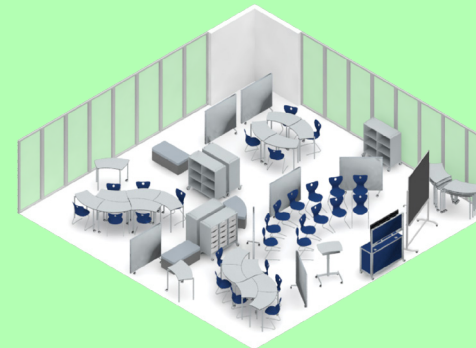
Project Work: Self-Directed and Small Group

Students rearrange the classroom into unique, smaller spaces and make configurations that support their preferred style of learning. Some students work on the project alone. Others, who struggle with self-directed work, continue working in small groups. The teacher has the ability to quickly visit all of the individuals and groups. The flexible arrangement supports classroom management and minimizes behavior issues.

Project Debate: Large Group

After project work, students make their thinking visible through "chalk talks". They present their work, question one another and discuss what they are learning. Students form caucuses in preparation for a class-wide debate. Once debate starts, students continue rearranging the space. Groupings are dynamic; students' positions shift, and the furniture responds in kind.

Education Specifications

Learning is Inspiring

Engage students with sensory-rich environments

Colors, natural and artificial lighting, materials and student work form much of the sensory education that underlie the learning environment. Brain research tells us that the senses are the gateway to the mind, and through them, students develop intellect, build memories, and make meaning. The research also says that students retain, retrieve, and learn best within environments that are sensually rich. Engaging the built environment through the senses has a profound impact on a person's psychological and physiological well-being. Given the impact on mood and behavior, the built environment will either enhance or impair the learning environment. Consider the bland and chaotic sensory environments of schools past with their locker-lined corridors, fluorescent lighting, shade-drawn classrooms, harsh cafeterias, and concrete schoolyards. Over– and under-stimulating spaces make for poor learning environments.

At that same time, spaces that are intentionally designed to balance these stimuli are shown to reduce students' stress, improve their attention span and ability to focus, alter their perception of time, and reduce both absenteeism and vandalism. Expanding design thinking beyond sight and sound creates a healthy learning environment when it includes the feel, smells and tastes of life, too.

Children need to be inspired by their environment

How do we inspire students with color?

Brain research also indicates the brain develops through patterns and relationships. For example, seeing contrasts between colors is vital, such as contrasts between light and dark, saturated and muted, or warm and cool. Color also has the power to enhance mood and compliment particular activities. In spaces that are used for focused work, rest, and contemplation, colors that are cool and soothing enhance feelings of calmness and repose. Colors that are warm and bright stimulate activity, so they are best suited for play, fitness, and other energetic space utilization. Colors also communicate what activities are appropriate. Color can improve way-finding as well as demarcate territories, such as giving each learning suite a unique, personalized identity. Consider how the culture of the community, site, and climate influence color, and remember that color preferences change for different student ages.

How do we inspire students with natural and artificial lighting?

Consider natural light and the detrimental and positive effects it has on a space. Views of the outside world provide bright colors and full-spectrum lighting; yet glare ensures that blinds will stay closed, no matter how beautiful the views. As much as they need light, students also need darkness and shadow. Natural light is neither consistent nor entirely predictable, and alone, it cannot satisfy the needs of the learning environment. Artificial lighting is critical. Artificial lighting provides a range of qualities depending on light source, whether it is concentrated or diffused, temperature and shadows. Because every student learns differently, what qualities of artificial lighting are needed for the learning environment?

How do we inspire students with material?

Materials stimulate the senses in a variety of ways with finishes that range from smooth to rough, soft to hard, wet to dry, and transparent to opaque. Some materials are even fragrant; consider the range of smells between leather, mahogany and steel. They provide a number of ways for learning about the world. Some materials weather and change over time while others, like glass, maintain a more permanent state. We experience conductance through touch; at the same temperature, steel feels colder than wood. Students learn how light and sounds behave through the patterns of different materials. Hard materials are louder, and glossy materials reflect more light. When a student knocks on a surface, what sound does it make?

How do we inspire students with the display of their work?

Making 2D, 3D and digital artifacts is not only a form of thinking and communicating with others, it is a means of self-expression; for some it is their preferred way of working. Displaying student work adds color, and it enables students to track progress and personalize their environment. Students learn that there are multiple points of view. They learn to critique their own work, critique the work of their peers, accept criticism in return and ultimately develop internally-driven measures for success. Display teaches students that their work matters to others, particularly with caring adults. Perhaps more important, the elementary years have a profound impact on students' identity and their relationship to creativity. Ask a first grader, "Are you an artist?" Most if not all say yes. Ask them again in five years, and all but a few say no. How do you engender a learning environment where every student learns the language of design?

Education Specifications

Teaching is Collaborative

Support teachers working together

Supporting a variety of student learning styles changes how teachers work together. Teachers work with a number of para-educators, student teachers, and special education professionals. Counterparts may share the classroom, use the shared learning space, or work in a designated area. Further still, team teaching is another manner in which educators are approaching the student-centered model. Team teaching allows teachers to complement each other as well as offer students the opportunity to work with different teacher styles and personalities, while still promoting self-directed, and small group learning experiences.

As teachers work in teams, the relationship between learning spaces becomes even more important. For example imagine a series of smaller spaces flexibly reconfigured into a larger space. Offering the ability to open and physically join classrooms supports team teaching, self-directed learning and small group work. In addition providing shared learning space supports teachers and students engaging in long-term projects. Visibility is essential for teachers as a larger, more open space allows for the supervision of students. Transparent walls provide visual connection for student supervision while offering acoustical separation. A group of students doing contemplative learning and another doing collaborative learning can be visually connected while working separately. With flexible space, learning becomes both pervasive and visible.

How will we ensure that our students are relentlessly supported and continuously challenged?

Learning requires a positive teaching culture

Foster collaboration among teachers

Not only are students expected to become strong collaborators, the teacher also becomes a key collaborator with students and colleagues in order to foster a student-centered learning environment. As the curriculum changes becomes more rigorous, involves a variety of technological tools and resources, collaboration becomes more important than ever. Interdisciplinary and project-based learning, for example, require creativity, constant iteration and critical feedback from peers. To facilitate communication, space for teachers also must extend beyond the traditional classrooms. Alternatives to working alone in an isolated space. School design must include spaces where teachers create, concentrate, prepare, and collaborate within their professional learning communities. The inhabitable space in-between, from classroom portals to corridors, is just as important to collaboration as formal spaces. And given the challenging nature of the work, teachers require ample downtime. Give them spaces to get away, relax and recharge.

How will we create environments that foster collaboration?

Interview with a Teacher

1. How should the building support a culture of collaboration between teachers?

In the school where I first taught, everyone met in the staff lounge because planning space was limited. In the second, each grade level met in a particular classroom. The building has a major impact on how teachers work together. Ultimately, promoting sustaining collaboration between teachers starts with the feeling of the space. Like a café, it should feel comfortable and familiar. Teachers should immediately recognize space for relaxing, enjoying the company of others, professionally collaborate, or just getting work done. Resources should be readily available. At the end of the day, space should be a nice place to work; therefore it should be inviting, not utilitarian. If the space feels like little care was put into it, then it won't be used.

2. Beyond teacher planning spaces, are there other opportunities within the school?

Consider the typical traditional workroom that often looks and feels more like a storage room. Imagine the possibilities of a workroom reimagined into a leadership space. While it may still house the copier, paper, and typical resources, the room is transformed into a collaboration zone where resources are readily available. Because the space is open, you see what's going on, and it feels inviting and welcoming to everyone.

3. Should spaces for teacher collaboration be centralized or distributed?

Proximity to the classroom is key. With a thirty-minute lunch, a lounge that requires a five-minute walk gives you only twenty minutes to relax, socialize or work. Time is a valuable resource to teachers. If a space is convenient, then it is more likely to be used. If a space is truly special, then teachers are more inclined to use it. However at the end of the day, convenience matters most. With that said, are we losing resources if we move to a decentralized model? While spaces for smaller planning and team meetings are great, we still need a main space for larger meetings and larger group work. It is important to understand the culture and find the right balance.

4. If we are visioning and really thinking big, then what might that balance look like?

Ideally, there is a large space for whole group collaboration and smaller ones for daily informal and spontaneous interaction. Google solves the problem in an interesting way. We saw some really cool spaces when we toured their Kirkland campus. There are really small spaces, almost broom closet size, for Skyping abroad. There are reading nooks, where you face another person, almost like a couch. There are lots of booths that are large enough for four to five people. Some are open; others have sliding doors with frosted glass so they can be open or private. And there are spaces for larger gathering and recreation. Providing a variety of spaces encourages people to get together and meet up for a variety of activities and outcomes.

5. Are educators open to moving away from the model of "one teacher, one classroom" to a learning suite where a team of teachers own a series of spaces?

In addition to supporting all learners, adult and students, teachers who understand the value and significance of collaboration recognize the limits of only designing and configuring space in a traditional "one classroom" setting. Flexibility isn't limiting, it permits being able to arrange space in a variety of configurations. When a high degree of collaboration is necessary, learning suites are available. If team projects require both self-directed and collaborative interactions, transparent walls are available. If a traditional lecture and test setting are necessary, then it is configured to support this activity. Overall, collaboration is essential for the adults who are responsible for the planning and teaching as well as the students who must actively engage with others in project-based learning experiences.

6. What features are critical to extending flexible learning spaces a success?

Visibility. It must be easy to see out. Consider behavior management. If a student must leave the classroom to calm down, then teachers have the ability to send the student into a different learning space, deescalate, and then return. A hallway may evoke a feeling of being punished as well as put a student in an unsupervised situation. Minimizing student distractions works best if teachers can actively and safely supervise at all times. But most importantly, when students are sent out to work as group in a shared learning space, the teacher wants to be sure they are doing their work.

7. In terms of sharing resources and staying connected with your teaching team, is there an ideal number of core learning spaces within a single suite?

If it is important that teachers meet on a regular basis, then eight is definitely too high. While three works, it is on the low end. Between four and six is good, but personally, I feel that five works very well. Suites may include teachers from different teams representing each of the content areas, such as language arts, social studies, science, math, and an elective. Or suites may include teachers from the same team, such as all of the language arts teachers together.

Education Specifications

Learning is Connecting with Nature

Make the outdoors abundant

Nature is a critical part of the learning environment that exists both beyond the building and within it. The site presents the opportunity to be in nature, and more importantly, the opportunity to establish an immediate awareness of and connection to the natural world.

Being outside is not only important, it is a necessary condition for learning. According to John Medina, author of Brain Rules, being active while outdoors provides the optimal condition for a child's cognitive development. When speaking before school designers, Medina makes two important points. First, exercise is critical, particularly with children. The human brain is most active during exercise; additionally, lack of exercise impairs cognitive function. Ideally, students should be active at least once every hour. Second, being outside matters. The human brain performs best when it is outdoors. Put simply, recess and PE are not enough. You must build opportunities for students to be active and outside for the maximum amount of time possible.

How will we ensure that our students are engaged with the natural world around them?

## Children need to connect to nature

Engage the site's natural assets

Consider hydrology: strategies include restoration, daylighting, the use of the natural geographical landscapes, and direct education. Finn Hill, a junior high school in the Lake Washington School District, uses a series of rain gardens to treat rainwater and create six distinct courtyard habitats: montane, upland forest, riparian, wetland, island sound, and coastal.

Connect with nature from within

Students spend a significant amount of time indoors. At Cherry Crest, an elementary school in the Bellevue School District, a landscaped courtyard and garden terrace allows students to visually and physically connect with nature throughout the day.
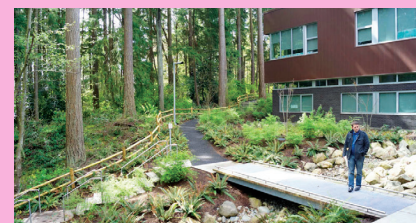
Provide immediate access to the outdoors

At A.G. Bell, an elementary school in the Lake Washington School District, each learning cluster has immediate access to the outdoors. From the shared project area on the ground floor and a generous stair from the upper, children are allowed to quickly move outside and immediately transition from focused mode to active mode.

Consider non– and semi-conditioned spaces

Islandwood, an outdoor education center on Bainbridge Island, has non-conditioned breezeways which accommodate circulation and create solar lobbies: spaces that are immediately adjacent to each classroom allow contact with heat, wind, pressure and light. Beyond offering an increased awareness of time, place and the natural world, non– and semi-conditioned spaces help reduce energy use.
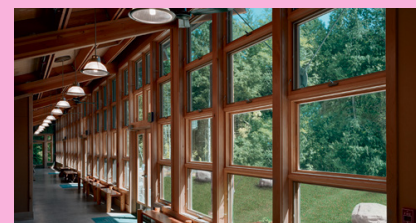
Additional Thoughts

Rethinking the learning space

The classroom is shifting from a single space to a variety of smaller ones with flexibility to be reconfigured into larger spaces. Consider making some of the small group spaces non– or semi-conditioned. While unavailable on certain days, these spaces will be particularly sought after on temperate ones.

Use natural materials

Through touch, smell, and patina, natural materials such as wood and stone engage the senses and provide an alternative means of understanding the natural world. When natural materials are contrasted with more manufactured ones like steel and glass, students learn about material properties, including transparency and opacity, thermal conductance, and responsible manufacturing.

-Adapted from: John Medina. Brain Rules. 2008. http://brainrules.net

Education Specifications

Learning is Healthy

Learning lifelong habits for healthy living

Schools play an important role in promoting lifelong habits for students such as diet, cooking, fitness, and self-care. Providing healthy environments is not enough; we must think about the culture and habits of mind that our environments engender.

Done well, dining plays an important role in providing sensory-rich experiences: food has different textures, smells, sounds, and temperatures. When designing we must ask ourselves hard questions:

1. Do we provide opportunities for learning about the full cycle of food?

2. Do we provide opportunities for learning how to cook food that is tasty and nutritious?

3. How do we build rituals that celebrate the communal aspects of eating?

While current practices may exclude such offerings, future design opportunities for schools allow for consideration.

How do we build environments that foster healthy living?

Reinventing the School Lunch

An Interview with Stephen Murakami

Why is the lunch experience important?

A recent study shows that for first time in history, kids today have a shorter life expectancy than their parents because of lack of nutritional smarts. We play a huge role because we feed kids two to three times per day. We provide breakfast, lunch, and an afternoon snack; in some schools, we send food home for the weekend. In twelve of our schools, nearly all students eat for free.

What are the challenges?

Students typically have about twenty-three minutes to get into the queue, get food, sit down, eat, clean up, and get back in line for drop-off before racing out to recess. That's no time at all. I'd like to see recess and dining flipped. Give the kids the exercise they need, allow them to burn off energy, and at the same time, get them involved in an outdoor experience that actually shows where food comes from. Instead of a race to the playground, I imagine that we create opportunities to see the full cycle of food.

What would teaching the full food cycle look like?

We must get our students talking about how food is cultivated, harvested, planted, produced, and managed as waste. They must see it and experience it. Given the legal ramifications and requirements imposed by the risk management pools, these experiences will likely need to be demonstrative and not for production; legislators aren't supporting that yet. If we are visioning for the future, then I imagine a farm-to-school-based system with a full circle learning opportunity to get kids aware of the decisions they make and to promote healthy living. We must help our students build lifelong skills that will carry them throughout their life.

Are there examples?

Bainbridge Island School District has a lunch program called "Bite of Bainbridge," where third graders plant and fourth graders harvest potatoes for student meals. I would love to see our district start a conversation with Metro Parks and City of Tacoma about creating a community kitchen, where we work together, mitigate the legal concernsand ultimately build something that becomes a focal point for truly engaged, multi-generational learning around nutrition. The ability to do that, not only for the kids, but for their parents and the local community too, is what we mean when we say community asset.

Is there a way to make the dining experience more meaningful?

There are a lot of benefits to slowing down and moving to smaller scales. Grouping students in smaller, more meaningful ways may help alleviate bullying and bridge socioeconomic divisions. We talk about creating shared learning areas throughout the school. Can these be used for dining? They may become places to slow down, break down the scale, and have more of a family setting.

Talk more about slowing down the dining experience.

In order to slow down the lunch experience, we must find ways to make the period educational. Right now, students typically have twenty-three minutes to quickly eat their meal. Every minute in the day of a student is critical. So how do we maximize lunch as a learning experience? We give students a say in what's on the menu, and a role in producing, distributing, and composting their food. If we make lunch educational, we can give it more time.

Is there a way to make dining less formal and more ubiquitous?

Operations have been built around the adult for many years now. As we move to a more student-centered model, we must think about students' physiological needs, such as when and how often children need to eat. How do we support children with different learning as well as physiological needs? Many workplaces now offer their employees the freedom to eat when they want based on their schedule and needs. If they are doing it, then we can too. The Starbuck's model offers grab-and-go selections and a surprising amount of variety with little more than a microwave. An early learning center in Renton provides mobile hot carts to teachers so that students eat meals within the learning suite. Other districts are starting to offer these types of experiences.

Education Specifications
Learning is Safe and Secure

Foster a Community that Cares

Fostering a safe and secure learning environment requires new thinking about the relationship between school and the public at large. Without being actively involved with a school, it is difficult for community members to understand what happens within and, therefore, are unable to make a personal connection. Without personal connection, public support is difficult. Only by welcoming the community into our schools and making the inner-workings transparent will community support become possible. We must identify ways in which the school may serve the community and vice-versa.

Crime Prevention Through Environmental Design (CPTED)

In order to provide a secure campus while maintaining a welcoming atmosphere, design professionals can draw on the passive principles of Crime Prevention Through Environmental Design (CPTED) which focus on three areas: Surveillance, Access Control, and Territorial Reinforcement.

Surveillance

Visibility and transparency are key to achieving passive surveillance in and around the campus. Design of the building and landscape should consider the "See and Be Seen…and Heard" philosophy.

Access Control

The campus should have limited points of entry and the design should force visitors to the main entry where they are checked in before being granted access to the campus.

Territorial Reinforcement

Campus boundaries should be clearly defined, conveying a sense of importance and an expectation for respectful behavior. Maintenance is an important aspect as a campus with poor maintenance conveys a lack of care and respect, which invites graffiti and other more serious damage.

Address the Four Zones of Security

Develop safety and security strategies that strengthen and bolster each of the school's four zones.

Zone 1: Up to the Curb

For example, consider the zone from the neighborhood to the curb. In order to develop strategies appropriate to this zone, you must first understand traffic patterns, access points and safe walking routes. While adequate emergency access and site egress are mandatory requirements, alternative routes are equally important. Secondary access routes are critical during bottlenecks. Design for worst-case scenarios, such as an emergency event during school pick-up. Know the Safe Routes to School. If they don't yet exist, propose developing them. Your design must respond to the broader context and patterns of use.

Invite local police and fire departments to participate in the safety discussion. They know the neighborhood and are a great resource for developing site access strategies.

Zone 2: Curb to the Building

Site perimeter security includes landscaping, lighting, walks, service areas, parking, public zones, private zones, student use areas, busing, signage, cameras, out buildings, overhangs and covered areas.

Zone 3: Building Exterior

Building perimeter security includes doors, windows, signage, hardware, security entry devices, cameras, roof access, vandalism potentials, line of sight, and lighting.

Zone 4 Building Interior

Building interior security includes vestibules, hardware, transparency, sightlines, areas of refuge, classroom layout, vertical circulation, hard and soft zoning, cameras, security entry devices, PA and phone systems, restroom configurations and placement.

Transparency and Security

Transparency is an important part of providing a positive learning environment and promoting community use. It is also a strategy for security. Transparency makes it easy to identify threats early, thereby increasing available time for closing blinds, locking doors, using emergency communications, moving children to an area of refuge, or fleeing through a secondary exit. Removing windows limits an offender's ability to see in, yet it also limits a teacher's ability to see out; a teacher may not know an offender is present until it is too late.

As classrooms become more transparent, areas of refuge must be rethought. If the learning suite is protected from other areas by a security door, then it becomes an area of refuge.

Education Specifications
The Power of Innovative Schools

An environment where every student succeeds

Educational institutions continue to learn more and more about what makes students successful. Creative, active, and innovative models require teaching and learning spaces beyond the traditional model. To support and empower innovative schools, the needs of the District are assessed as a whole. From there, a portfolio of offerings is developed and considers what is available for all students, at all grade levels. Innovation is not about trying new things just because; innovation is matching students with learning environments that play to their passions and interests. And when we succeed, students are more engaged; when students are more engaged, learning is deeper. Learning includes each of five modes: to think, to create, to discover, to impart, and to exchange. Equally important, students are developing the way in which they relate to self, others, and the world.

By exercising choice, personalizing space and finding their own particular point of view, students develop their relationship to self. They develop their relationship with others by learning alongside peers and other children, both younger and older, as well as adults of all ages and backgrounds. By learning with and being in nature, the neighborhood, and building, students develop their relationship to world.