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Connecticut Children's Museum Universal Design for Learning Award 2005 Application

1. Please describe your program's activities and timeline.

The *Connecticut Children's Museum*, through its family visits and educational field trips, provides interactive and hands-on learning experiences in an accessible, tactile and textured, multiple intelligences-based environment that honors the culture of all children.

The Board of Directors for the *Connecticut Children's Museum* develops a comprehensive program plan for the *Connecticut Children's Museum* annually. A driving force for the Museum's programmatic strategy is the need for innovative and inclusive learning opportunities for children, their families and teachers. Manifested in all of its exhibits, and its program design and implementation, the *Connecticut Children's Museum* recognizes that children of all abilities need access to varied, rich and textured environments where they can experience themselves as competent and confident learners, acquire the skills and knowledge they need and prepare to take their place as fully participating members of their communities. This is inclusion.

2. How does your program incorporate learning goals and teaching strategies to include people with physical and cognitive disabilities?

The *Connecticut Children's Museum* was designed by a community of people dedicated to providing a magical place for all children, their families and teachers. Part of the magic is inclusion. To realize this vision, the *Connecticut Children's Museum* creates learning and teaching experiences for children in a multiple intelligences-based Museum. The Museum uses Howard Gardner's Theory of Multiple Intelligences as the inspiration and template for its design. This inherently inclusive theory honors the myriad ways in which children are competent and creative in the world and provides families and teachers with a way to discover their young children's passions and support their learning patterns. The eight intelligences are mirrored throughout the Museum rooms: linguistic, logical-mathematical, spatial, musical, interpersonal, intrapersonal, naturalist and bodily-kinesthetic.

Howard Gardner's Theory of Multiple Intelligences is a rich and resourceful strategy for learning and teaching. Gardner defines an intelligence as "the bio-psychological potential" of all humans. For children with disabilities, this is a critical definition. By identifying areas of developmental strength and supporting a child's specific abilities through flexible and innovative exhibits and programs, we can realize an inclusive experience that pays tribute to the many learning styles of children. The *Connecticut Children's Museum*, coupling the Theory of Multiple Intelligences with accessible exhibits and programs, creates multiple opportunities for each child.

Families experience the *Connecticut Children’s Museum* as a thoughtfully designed and philosophically driven place that offers ample opportunities for laughter and learning. Visitors are greeted inclusively by our life-size, sculptured logo kids on the Museum lawn, one of whom is frolicking in a wheelchair.



Opening the doors, children begin their journey through the Museum’s eight rooms, immersing themselves in the exhibits that reflect their passions. Knowing that children acquire knowledge in many different ways, each exhibit is designed to provide a kaleidoscope of experiences. Exhibits are designed to include the following **entry points** that Howard Gardner, the architect of the multiple intelligences theory that scaffolds the Museum’s exhibits, considers important for successful learning. They are: foundational, experiential, logical/quantitative, aesthetic, and narrative.

Foundational



Children are invited, through the exhibits, to ask fundamental questions. Turning the long rain stick cylinder this way and that, listening to the sounds the pebbles make as they cascade down inside it, a child who is blind or visually impaired might ask: “What is making that sound?” A child who is deaf studies the transparent rain stick, seeing the sound as s/he watches the motion of the tiny stones descending the cylinder.

<p>Experiential</p> 	<p>Each exhibit offers an engaging, hands-on and interactive learning experience. Children can don the gear of the construction worker, filling their authentic tool belts with wrenches, hammers, levels and saws. Children walk, skip or zoom their wheelchairs through the wide doorway of the chalkboard house, together sketching a building blueprint and then gathering the materials to construct their habitats.</p>
<p>Logical/Quantitative</p> 	<p>Assembling a wall of interlocking wooden gears or counting a box of a coins using an abacus, children can, through touch, create and re-create the logic and order they need to understand their world. Bi-lingual, talking calculators confirm their totals.</p>
<p>Aesthetic</p> 	<p>We nourish the souls of children with large-scale murals drawn by children and local artists and with sculptures they can touch. The tactile pleasure of textured surfaces and the visual experience of deep and contrasting colors, often emerging from a storybook theme such as <u>Caps for Sale</u>, give all children visiting the Museum hours in a beautiful and bountiful setting.</p>
<p>Narrative</p> 	<p>The Museum immerses children in a multi-faceted and accessible literacy environment rich in interactive experiences, including American Sign Language. Books that we have Brailled are integral to each exhibit and central to the <i>Creating Readers</i> program. Readers and multi-lingual storytellers, writing materials, including a Perkins Brailier, magnetic word walls, signs and fascinating factoids to read, all in English, Spanish and Braille ... connect children to literature. Together they provide universal access to literacy.</p>

The *Connecticut Children's Museum* is guided by the tenets of Universal Design. Ramps abound to make exhibits accessible. The Museum's 100 factoids are in Braille, English and Spanish and our vast collection of over 350 exhibit-related children's picture books is being transcribed, one by one, into Braille. Believing that parents and children who are blind should have equal access to high-quality literacy resources, each week our staff Braille copies of the featured children's picture book to distribute through our *Creating Readers* program. An American Sign Language interpreter is available for some of the Museum's programs.

3. Describe how your institution's guidelines and policies support inclusive educational programming.

The space and the programs of the *Connecticut Children's Museum* are designed to respond to the following three key and relevant aspects of the Museum's strategic plan: (1) ensuring accessibility for children with disabilities to the Museum and its exhibits, (2) ensuring that each program is inclusive, and (3) placing accessibility and inclusion on the community agenda.

Our guidelines and policies recognize that, of the people living in our communities, 10% are differently-abled. We have created a learning environment that is deeply accessible, that imbeds inclusion elements into structures and programs and that goes beyond the legal requirements of the ADA. Children of all abilities deserve a place of their own, a place full of whimsy and wisdom, a place built to embrace the special needs of each child. Helping children live inclusion – with a community of peers having different interests, abilities, passions, skills and attributes while exploring and experiencing accessible exhibits together in a children's museum – challenges exclusion and strengthens the community agenda of inclusion. As a recognized model of accessibility, the *Connecticut Children's Museum* raises the community bar of inclusion by infusing its exhibits with innovative and inclusive elements and continuing its history as a destination of choice for its audience: families of children with and without disabilities.

4. Explain involvement of people with disabilities in program planning and/or implementation.

The *Connecticut Children's Museum's* original and primary mission was to prioritize inclusion in all of its exhibits and programs. The Theory of Multiple Intelligences was selected as the theoretical underpinning for all of the Museum's programs specifically because it is a theory that scaffolds the learning of children with differing abilities. During the community-based renaissance process of the Museum in 2000, exhibit design was driven by this mission to create innovative and accessible learning opportunities for all children.

Through a series of eight community-based 'Inspiration Meetings' – each dedicated to a specific room and each one American Sign Language interpreted – parents, childcare providers, artists, teachers, legislators, musicians, dancers, designers, builders, scientists, politicians, consultants from disability fields, health care providers, community organizers, businesspeople and naturalists volunteered one or more evenings to develop the exhibits for the multiple intelligences-inspired *Connecticut Children's Museum*. Young adults with disabilities participated; these young adults are still regularly involved in our programs and traverse the Museum to offer inclusion suggestions. A high school student, who is blind, Brailled each of the Museum's 100+ factoids. A teacher for blind and visually disabled children helps to coordinate family access to the Museum statewide and advises the Museum on inclusion issues.

5. How does your institution support professional development on inclusive practices for your staff?

The practice of inclusion is a central value of the *Connecticut Children's Museum*. Staff are hired who share this value and demonstrate the ability to understand and enact inclusive practices. Specific skill building is acquired through supervision and workshops. The Museum Director and the early childhood staff have been trained in descriptive reading, a language enrichment approach to children's picture books that makes literature accessible for all children by providing them with a wide and detailed vocabulary. Staff learn the art of Brailleing children's picture books and are experts at introducing children to the Perkins Braille in the Linguistic Room.

The staff of the *Connecticut Children's Museum* work inclusively and directly with children with disabilities. Staff participate in the *TEXTured Literacy Program*, designing and assembling the literacy prop bags and working with individual children to support their participation. Staff acquire a working vocabulary of American Sign Language and participate in the *Creating Readers* program book readings.

6. How will you evaluate and measure the impact on participant communication, problem solving, cognitive and/or artistic skills of this program?

To help us evaluate and measure the impact of our inclusive exhibits and programs, the Museum underwent a rigorous Accessibility Evaluation in March of 2004, commissioned by the City of New Haven's Department of Services for Persons with Disabilities. The evaluator summarized her findings thus: "The [*Connecticut*] *Children's Museum* is the most exceptionally disability-aware arts institution this evaluator has ever surveyed."



She continues, "Especially in regard to effective communication, the Museum has made efforts rare among entities of any kind. In this connection, they have not only installed permanent Brailled labels and Brailled all books used in the regular storybook sessions, but have developed original tactile signage (raised diagrams of Museum features, for example) that make the experience of Museum-going as accessible as possible for visually impaired guests. A set of Brailled blocks is but one example of play material accessibility."

In October of 2004, we received statewide recognition by being given the Artful Access Award from the Americans with Disabilities Act Coalition of Connecticut, Inc. This prestigious award was given "in recognition of the [*Connecticut*] *Children's Museum's* commitment to removing barriers and providing an accessible environment so children with disabilities can experience and enjoy the wonderful activities at the Museum." The award referenced the inclusive environment and exhibit elements that are integrated into the *Connecticut Children's Museum*. Examples include:

In the Musical Room, a transparent Ocean Drum makes rhythm visible for children who are hearing impaired or deaf. The Linguistic Room, which is a perfect life-sized replica of the great, green room from the children's classic, *Goodnight Moon*, includes a Braillewriter and Braille labeler and all the words from the famous book in English, Spanish and Braille mounted on a magnetic wall. In the Intrapersonal Room, children who use wheelchairs can roll up to the faces table and ponder their emotions in English, Spanish or American Sign Language. Everyone can practice signing in front of our many mirrors with the help of ASL murals and children's picture books that include signed text. In the Logical-Mathematical Room, children can tell time by our American Sign Language clock while assembling the interlocking wooden gears on the wall. Exploring in the Naturalist Room, children who are blind can hear the bees buzzing in our observation hive surrounded by sounds of the forest and shores. And sending letters around the world from the Interpersonal Room post office becomes a three-dimensional experience when children locate another continent on the Museum's tactile globe.

The *Connecticut Children's Museum* is included in a unique guide written for families of children with disabilities to help them identify accessible learning spots in Connecticut. As part of her statewide research, Nora Ellen Groce, the author of *Accessible Connecticut: A Guide to Recreation for Children with Disabilities and Their Families* (Yale University 2002) spent several afternoons at the *Connecticut Children's Museum*. Of her experience, she states: "This museum is child centered, and children will leave feeling that they have had a chance to explore and think. ... This slow-paced, hands-on museum is wonderful for children with a range of abilities. ... This facility has been designed with children with disabilities specifically in mind."

7. What makes your program unique and innovative?

Universal Design sets the tempo and shapes the template for the *Connecticut Children's Museum* exhibits and programs. Inclusion is embraced and embedded in each layer of the Museum; it is an expected and ordinary part of the Museum's design.

This tapestry of accessibility is woven through the attention given to the details. Four sculptured children dance nimbly on the Museum lawn -- right side up, upside down and using a wheelchair. Our logo replicates this joyous, multi-abled, Museum-going quartet. Our exhibits are inclusive in the fullest sense and appeal to all the senses. We honor the culture of all children.



8. Describe how you share this program with the community.

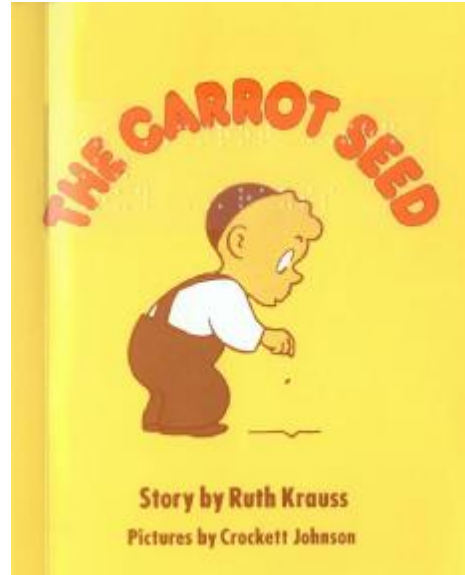
The *Connecticut Children's Museum* has welcomed over 50,000 children, their families and teachers since opening in early 2001. Through our programs, we highlight the inclusive opportunities possible for all children and make inclusion a visible and attainable goal for the community. The infusion of inclusive elements enriches our exhibits permanently, alters the long-term shape of our programs and, together, creates an enduring influence within the community. The *Connecticut Children's Museum* takes a multi-faceted approach to building community awareness of the Museum as an inclusion model and to creating a community conversation placing inclusion on the agenda. By designing programs with a broad scope, we are able to do both. The following is a list of Museum programs for the current year and comprises the elements of our community awareness and engagement plan:

Saturdays at 2 ▪ offers children an opportunity, during their Museum visit, to listen to a story be read, danced, dramatized or presented in American Sign Language each week. Our readers are talented community artists, actors and musicians, storytellers and educators who model a love of reading. After listening to the story, children receive an English, Spanish or Braille copy of the book for their home libraries. Hundreds of free family passes are distributed each year, increasing annual attendance by over 1,000 people from the inner city neighborhoods of New Haven and providing access for all to the Museum as a creative and inclusive learning place.

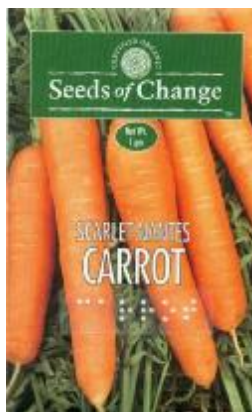


Robert tells a *Saturdays at 2* story to the children in American Sign Language.

TEXTured Literacy Program ▪ is a series of monthly family field trips for children who are blind or visually disabled that complements the Museum's *Saturdays at 2* literacy program.



Christopher explores the carrot top and his Brailled book.



Through the *TEXTured Literacy Program*, children who are blind or visually disabled participate in an innovative early literacy experience where copies of the featured book are transcribed into Braille, and then read aloud, descriptively, by the Museum staff. The children read along while they listen to a specially made audio CD, with sound effects to accompany the book, and examine authentic items that illustrate the story, just as the pictures do for sighted children. Families take home the “story bags”, which include a Brailled book and related literacy props. For example, children and parents can enjoy the story over and over again from Ruth Krauss’ classic children’s picture book, *The Carrot Seed*, by planting and tending to their sprouting carrot seeds using their new watering cans and proudly filling up their authentic, kid-sized wheelbarrows with carrots when they come up, “just as the little [children] had known they would.”

Educational Field Trips ▪ bring thousands of inner-city children to the Museum each year as part of our affirmative attendance program. Central to this program is partnering with schools and programs that include children with special needs. The Museum provides a unique educational destination for early childhood programs, family childcare homes and schools where the exhibits, with books to complement them from the Museum's extensive children's picture book collection, can inspire teachers and students. Each field trip group participates in the *Creating Readers* literacy program. Museum staff read a high-quality children's picture book, accompanied by American Sign Language word signs, and each child is given a copy of the book.

Creating Readers ▪ recognizes that all children need books of their own to read and strong literacy learning skills to succeed in school. Through *Creating Readers*, both children's home libraries and the book collections in their early childhood programs expand, and reading opportunities are broadened, by the program's gift of over 5,400 picture books annually. Children visiting through *Educational Field Trips*, as well as those attending the *Saturdays at 2* literacy programs with their families, all receive high-quality children's picture books in English, Spanish or Braille.



Brianna reads her new *Creating Readers* book, *We're Going On a Bear Hunt*, by Michael Rosen and Helen Oxenbury, in Braille.

Mornings at the Museum ▪ brings inner city family childcare homes and informal childcare providers, with the children they are caring for, to the Museum. The program provides a book for each visiting child and gives bi-lingual children's picture books and related curriculum materials to providers to increase the resources in their settings. *Mornings at the Museum* is a quality enhancement project that helps providers develop a professional environment, one that is more likely to be the setting of choice for families who want their children to acquire the skills and knowledge they need to be ready for school. Literacy props provide tactile opportunities for children with differing abilities to engage in learning through books and Braille books are provided for children who are blind.

PACK – Parents and Communities for Kids ▪ is a project to promote family learning at the Connecticut Children's Museum. In partnership with a dual-language, inner city New Haven public school, where children with special needs are educated inclusively, over 200 children visit with their class, with parents acting as chaperones. Each child receives a high quality, bi-lingual children's picture book and literacy 'prop' to accompany it and a family pass for a return visit to the Museum. Teachers receive a curriculum box, where interactive and textured materials are provided to support inclusive teaching, with books as the central element, for all children. During the subsequent family visit, the children, as experienced Museum visitors, lead their families through the different rooms, sharing knowledge of the Museum exhibits and inviting their families to play with them. As parents become familiar with the Museum and the theory of multiple intelligences, they take their place as mentors, both at home and at the *Connecticut Children's Museum*.

Creating Kids at the Connecticut Children's Museum ▪ is the Museum's fulltime early childhood education program for children from infancy through preschool age. *Creating Kids* provides a breadth and depth of early childhood education unique in the community. It is an ethnically and economically diverse community with a majority of the families coming from the city's many neighborhoods. It is a community enriched by children with special needs. Families of children with disabilities are given priority for available slots.

The childcare space and curriculum are shaped by Universal Design and the Theory of Multiple Intelligences, reflecting the eight ways children learn.

The classroom materials are labeled in letters and Braille. Children learn to communicate artfully in American Sign Language with the help of an ASL instructor and their teachers. We read from our collection of Brailled children's picture books daily.



Kirin learns to sign 'turtle'.

Theme-based curriculum is developed with activities adapted for children with special needs, who represent 15% of our total enrollment, as well as typically developing children. *Creating Kids* is accredited by the National Association for the Education of Young Children.

Creating Curriculum ▪ is an innovative and experiential, semester-long, childcare provider training program, now in its eighth year, for family childcare providers and center-based teachers. It is taught in the *Connecticut Children's Museum* collaboratively by the teaching staff of the Museum's early childhood program and pediatric clinicians from the Fair Haven Community Health Center. It uses the structure of a children's Museum and the program model of multiple intelligences to teach childcare providers how to create developmentally appropriate and inclusive programs using children's picture books. Over 125 participants have earned credits toward their CDA – Child Development Associate – credential, which is a critical step in achieving and maintaining professional standards. The *Creating Curriculum* course is approved by Connecticut-Charts-A-Course, the statewide professional development system for early childhood education that supports career development which is the under girding for economic health and quality in the field. Participants receive credits specific to the study of inclusion and the multiple intelligences through *Creating Curriculum*.

Creating Classrooms – The Environment as Teacher ▪ is a twelve-session course, for CDA credit, for teachers from licensed early childhood centers and family childcare homes. The class meets in the *Connecticut Children's Museum*, using its accessibility template and the arts and literacy-based exhibits, as a model. It embraces the idea that early childhood environments are partners in the education of young children, and that early childhood classrooms can develop museum-inspired, literacy-based and inclusive curriculum centers. The goals of this interactive course are: (1) Offering theory showing that early childhood environments, like children's Museums, are teachers, and (2) Using this theory to increase accessibility and improve classroom quality and teaching.

Conclusion

The mission of the *Connecticut Children's Museum* is to provide children, their families and teachers with innovative and inclusive educational programs in a multiple intelligences-inspired, magical place, rich in resources and rooted in the community. The Connecticut Children's Museum serves as a model for community engagement and has been recognized for its inclusion agenda.

We respectfully submit our application for the Universal Design for Learning Award to the Association of Children's Museum.